# SOCIAL, HUMAN AND ADMINISTRATIVE SCIENCES RESEARCH PAPERS

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# SOCIAL, HUMAN AND ADMINISTRATIVE SCIENCES RESEARCH PAPERS

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# QUALITY OF LIFE MEASUREMENT: A RESEARCH ON 4-AND 5-STAR HOTEL KITCHEN EMPLOYEES IN ANTALYA[1]

CHAPTER 1

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## INTRODUCTION

Today, technological and medical developments are used not only for the elimination of diseases, but also for improving quality of life of individuals (Okyay et al., 2012: 179). Quality of life is defined as how individuals perceive their position in society in line with their interests, expectations, goals and living standards within the system of culture and values in which they live (Morkoç & Erdönmez, 2018: 512).

It is known that quality of life has a multidimensional structure in terms of conceptual aspects and that it is the research subject of many different disciplines. A different definition is made and used for each branch of science to define quality of life. Quality of life is often used interchangeably with the concepts of health, well-being, happiness or welfare (Veenhoven, 2000: 1).

It is possible to find many definitions of quality of life in academic studies of different disciplines from 1930s. The definition that influences today has emerged thanks to social indicators that occurred in the 1960s in the USA (Tosun, 2013: 217). The concept of quality of life was first defined by Thorndike (1939) as the "the reaction of social environment reflected in the individuals" (Akyol, 1993: 75; Bayramova, 2000: 14; Deveci & Avcıkurt, 2017: 316; Yeşilbalkan et al., 2005: 16).

The conceptual explanations of quality of life are similar to the steps found in Maslow's hierarchy of needs. Quality of life is defined as an individual being able to live in an environment free from unhealthy conditions, meet the needs such of eating-drinking, accommodation, protection and security, achieve physical and psychological development, positively influence the society and environment in which s/he lives and preserve the balance between actual and de-facto living spaces (Boylu & Paçacıoğlu, 2016: 137; Torlak & Yavuzçehre, 2008: 26).

Quality of life is characterized by a general assessment of the good, pleasant, beautiful and satisfactory characteristics of individuals' lifestyles and as a concept with four main characteristics. Four key features are listed as being dynamic, being multidimensional, being interactive and adapting to situations or events encountered in the life of the individual (Arslan & Kutsal, 1999: 174).

## CONCEPTUAL FRAMEWORK

Individuals may encounter with the concept of quality of life in many areas of their daily lives. They encounter with the concept of quality of life while watching television, reading a newspaper, spending time on the

Internet, dealing with politics or the economy, or within a part of the working life (Demirkıran, 2012: 8). Quality of life is defined as the way people perceive their own situation within the system of culture and values of the society in which they live (Avcı & Pala, 2004: 81).

Quality of life is defined by the World Health Organization as individuals' interest, relevance, expectation, purpose, desire, living standards, status in society, roles in society, place in terms of social values, and the way they perceive these elements (Feder et al., 2015: 228; WHO, 1997: 4-5). In addition, quality of life is defined as the individual being generally pleased with his life and being well (Eser, 2014: 2).

Quality of life is defined as the perceptions of individuals who improve themselves and who are constantly open to learning, at peace with themselves and with their surroundings, who fulfill their job and family responsibilities, try to do their best in everything they do, feel confident and enjoy life and living (Yaman, 2000: 222). There are many factors that affect the individuals' quality of life positively or negatively. It is also known that these elements have the ability to increase or decrease the quality of life (Bekir et al., 2012: 234).

The factors determining the quality of life of individuals are listed as physiological health status, psychological composure status, level of social relations, security, physical environment, personal and social development status, economic independence status, spirituality level, free mobility and natural resources (Spilker, 1996: 25-26; Top and et al., 2003: 20; Van Kamp et al., 2003: 11; WHO, 1997: 4). In addition, individuals require several components to maintain their lives in a quality way. Quality of life components are expressed as health and education services, participation in daily activities, a clean physical environment, equality of rights and opportunities, balanced and regular nutrition, dignity and security (Zorba, 2014: 82).

There are several approaches in the literature about quality of life. These are psychological, social, economic, ecological and health-related quality of life (Öztuna, 2007: 39). The concept of psychological quality of life was first used by Neurgarten in 1961 and stated that it was in close relation with life satisfaction (Oktik, 2004: 79). Psychological quality of life researches are carried out in terms of subjective perception of individuals such as life satisfaction and forms of assessment of events. In order for an individual to exhibit his stance against any event, he has to utilize emotions such as feeling sorry, being angry or being happy. However, the individual's satisfaction of family life, business life, personal life and the environment is listed as indicators of psychological life indicators (Demirkıran, 2012: 38).

The requirements of consideration for concept of social quality of life are, when the quality of life is assessed from a subjective point of view, how the individual feels within the society and when considered from an objective point of view, these are listed as job guarantee, economic assurance, educational status, living space conditions and quality leisure activities (Oktik, 2004: 76; Ventegodt et al., 2003: 1031). In addition, it is known that social indicators in society are effective in determining the individuals' social quality of life. Crime rates in the society, living conditions, unemployment rates, average achievement status, schooling rates of educational institutions, rate of voting in all elections, social welfare, health, occupational distribution, occupational mobility, balanced regular nutrition, public safety, participation in social activities, habitat and habitat usage conditions are listed as social indicators (Kenneth et al. 2012:1; Perim, 2007: 22; Sirgy et al., 2001: 14).

The concept of economic quality of life is explained by taking into account the assets of the individual, the number of people working in the household, the national income per capita, the gross national product of the country, the daily food consumption level of the individual, the durable consumer goods and employment opportunities of the individual (Oktik, 2004: 69-70; Zhao et al., 2005: 84).

The concept of ecological quality of life is defined as the harmony of reactions between individuals and the environment. In addition, ecological quality of life is evaluated from two different aspects as individual and environment. From the perspective of the individual, it is defined as environmental facilities responding to the wishes of the individual, and in terms of the environment, it is defined as resources being available to meet the needs of the individual (Arıoğlu et al., 1994: 9).

The concept of health-related quality of life can be explained primarily by defining the concept of health. Health is defined as the state of being well or ill as associated with the environment and lifestyle of the individual. It is known that activities such as the individual not being active, not doing sports or daily activities, cultural conflict, social and economic problems, crowding of cities, increasing types of pollution (air, water, noise, environment etc.) and the activities that may cause psychological problems affect the health of individuals negatively (Zorba, 2014: 3). It is observed that health-related quality of life is generally focused on the post-treatment of individuals. They are expressed as the results of any intervention in the field of health (Öksüz & Malhan, 2005: 2). The individual's freedom for vital activity is restricted in case of any occasion that creates stress, concern, anxiety or distress. This causes the individual to face medical problems. It is stated that social relations, religious beliefs, health conditions

and emotional states of individuals should be used in health-related quality of life measurement researches (Spilker, 1996: 2).

## RESEARCH METHOD

Quantitative research method has been used in this research, which attempts to determine the quality of life levels of individuals working in hotel kitchens. The individuals working in the kitchens of 4- and 5-star hotels in Antalya have been selected as the working group. The main reason for this choice is the consideration that Antalya is the province that receives the highest number of tourists and has the most 4- and 5-star hotels, hence the highest number of kitchen employees. In this respect, the hypotheses of the research are listed below.

**H1** = There is a significant difference between the demographic characteristics and kitchen employees' quality of life.

**H2** = There is a significant relationship among the sub-dimensions of quality of life scale.

The population of this research consists of employees working in the kitchens of 258 5-star and 189 4-star hotel establishments in Antalya. The data obtained has been formed by receiving from the Ministry of Culture and Tourism and Mediterranean Tourism Hoteliers and Operators Association. The population of the research is composed of kitchen staff working in 447 hotel kitchens providing services in Antalya. The convenience sampling method has been used in the research. The number of the questionnaires applied is 458, 58 of which are not included in the research due to being incomplete. The data obtained from 400 questionnaires has been used in the analysis of the research.

The questionnaire of the research consists of two parts. In the first part, the statements about determining the demographic characteristics of the kitchen workers who volunteered to participate in the research are used, and the WHOQOL-BREF TR scale, developed by the World Health Organization for the measurement of quality of life, adapted to Turkish by Eser et al. (1999) and undergone reliability works, is used to measure the quality of life in the second part.

In order to test the structural validity of the questionnaire used in the study, it was applied to the participants in January and February 2016. The data obtained from 400 questionnaires has been analyzed with SPSS 21.0 package program and LISREL 8.80 statistical software. Frequency analysis, correlation analysis, independent group t test, one-way analysis of variance (ANOVA), reliability analysis, simple linear regression anal-

ysis, factor analysis and confirmatory factor analysis have been conduct-
ed in the research.

## FINDINGS AND COMMENTS

88% of the research participants are men and 22% of them are women.
74.3% of these are married and 25.7% are single. 27.5% of the kitchen
employees have three children, 18.2% have two children, 15.3% have one
child, 9.5% have four children and 3.5% have 5 or more children. How-
ever, 26% of them do not have children. 41.3% of the research partici-
pants are aged 24-34 years, 36% are aged 35-44 years, 14% are aged 45-54
years, 7.3% are aged under 24 years of age and 1.5% are 55 years or older.
33.5% of the kitchen employees are section chiefs, 16.7% are section chefs,
14.5% are assistant head chefs, 12.3% are chefs, 8.5% are chef assistants,
8% are head chefs, 4.5% are dishwashers and %2 are interns. When the
educational status is examined, it is observed that 68% of them have sec-
ondary education-high school degree, 20% have primary education degree,
8% have associate degree and 3.7% have undergraduate degree. In terms
of income, 55% of them have an income between TRY 1301-2800, 22.8%
have an income between TRY 901-1300 and 18% have an income of TRY
2801 and above. 35.8% of the research participants have been working in
establishments for 1-3 years, 25.5% for 4-6 years, 20.5% for less than 1
year, 12.5% for 7-9 years and 5.7% for 10 years and more. Among the mar-
ried 73.4%, the spouses of 54.8% are not working and the spouses of the
remaining 19.5% are working. While 79.7% of kitchen employees do not
have any additional income like tips or premiums, 20.3% have additional
income. 75.3% of the enterprises serve for the whole year while 24.7%
of them provide seasonal services. The socio-demographic characteristics
of the kitchen employees that participated in the research are exhibited in
Table 1 below.

**Table 1.** *Socio-Demographic Characteristics of Kitchen Employees*

| Socio-Demo. Characteristics | n | % | Socio-Demo. Characteristics | n | % | Socio-Demo. Characteristis | n | % |
|---|---|---|---|---|---|---|---|---|
| Gender | | | **Workplace Position** | | | Spouse Employment Status | | |
| Male | 352 | 88,0 | Head Chef | 32 | 8,0 | Yes | 78 | 19,5 |
| Female | 48 | 12,0 | Asst. Head Che | 58 | 14,5 | No | 219 | 54,8 |
| Total | 400 | 100 | Section Chef | 134 | 33,5 | No spouses | 103 | 25,7 |
| Age | | | Section Chef | 67 | 16,7 | Total | 400 | 100 |
| 24 and below | 29 | 7,2 | Cook | 49 | 12,3 | Operation Period of Establish. | | |
| 25-34 | 165 | 41,3 | Chef Asst. | 34 | 8,5 | Seasonal | 99 | 24,7 |
| 35-44 | 144 | 36,0 | Intern | 8 | 2,0 | Whole year | 301 | 75,3 |
| 45-54 | 56 | 14,0 | Dishwasher | 18 | 4,5 | Total | 400 | 100 |
| 55 and above | 6 | 1,5 | Total | 400 | 100 | Receiving Tourism Education | | |
| Total | 400 | 100 | Income Status | | | Yes | 266 | 66,5 |
| Marital Status | | | 0-350 | 2 | 0,5 | No | 134 | 33,5 |
| Married | 297 | 74,3 | 351-650 | 2 | 0,5 | Total | 400 | 100 |
| Single | 103 | 25,7 | 651-900 | 13 | 3,3 | Daily Working Time | | |
| Total | 400 | 100 | 901- 1300 | 91 | 22,8 | Less than 8 hours | 174 | 43,5 |
| Number of children | | | 1301-2800 | 219 | 54,8 | 9-11 hours | 188 | 47,0 |
| N/A | 104 | 26,0 | 2801 and - | 73 | 18,1 | Over 12 h. | 38 | 9,5 |
| 1 | 61 | 15,3 | Total | 400 | 100 | Total | 400 | 100 |
| 2 | 73 | 18,2 | **Workplace Working Time** | | | **Hotel Type** | | |
| 3 | 110 | 27,5 | Less than 1 yea | 82 | 20,5 | City Hotel | 36 | 9,0 |
| 4 | 38 | 9,5 | 1-3 years | 143 | 35,8 | Coastal Htl | 364 | 91,0 |
| 5 and more | 14 | 3,5 | 4-6 years | 102 | 25,5 | Total | 400 | 100 |
| Total | 400 | 100 | 7-9 years | 50 | 12,5 | Hotel Star Status | | |
| Educational Status | | | 10 years and - | 23 | 5,7 | 5 stars | 372 | 93,0 |
| Primary School | 80 | 20,0 | Total | 400 | 100 | 4 stars | 28 | 7,0 |
| High School | 273 | 68,3 | **Additional Income (Tip, Premium)** | | | Total | 400 | 100 |
| Associate | 32 | 8,0 | Yes | 81 | 20,3 | | | |
| Undergraduate | 15 | 3,7 | No | 319 | 79,7 | | | |
| Total | 400 | 100 | Total | 400 | 100 | | | |

In the research, the statements of the quality of life scale have been subjected to explanatory factor analysis (EFA) and then to confirmatory factor analysis (CFA). The first two statements of the quality of life scale have not been used in the studies conducted since they are statements aimed at measuring the general quality of life of individuals. In the first phase, the first and second statements in the quality of life scale and then the 21st, 22nd and 23rd expressions with factor loads less than 0.50 have been excluded from the analysis and explanatory factor analysis has been performed. It has been determined that the quality of life scale does not preserve the original structure. Therefore, the quality of life dimensions obtained have been renamed. These are listed as psycho-social dimension, activity dimension, self-assessment dimension and socio-physical dimension.

In the research on the WHOQOL-BREF SP scale, dimensions differ in countries with cultural differences, language differences and sample differences. 18th and 22nd statements have been excluded from the explanatory and confirmatory factor analysis and it has been found that different expressions are collected under four obtained dimensions. According to the results of research conducted in nine Spanish-speaking countries; since the dimensions are composed of different expressions, validation and reliability is provided by making a different nomenclature compared to the original (Boregge et al., 2014: 2221).

Reliability values have been calculated with Cronbach Alpha coefficient. The Cronbach Alpha value of the quality of life scale was determined as ,896. The used scale has been determined to have a good level of internal consistency (Seçer, 2015: 219). 3 statements in the quality of life scale have been excluded from the analysis since their factors remain under ,50. It has been determined that the reliability values of psychosocial (α =,863), activity (α =,832), self-evaluation (α =,768) and socio-physical (α =,671) dimensions are sufficient. Table 2 exhibits the results of factor analysis on quality of life.

**Table 2.** *Explanatory Factor Analysis on Quality of Life Scale*

| Quality of Life Statements | 1. Dimension | 2. Dimension | 2.Dimension | 4.Dimension | Common Variance Value |
|---|---|---|---|---|---|
| Statement 5 | ,743 | | | | ,542 |
| Statement 6 | ,714 | | | | ,364 |
| Statement 10 | ,673 | | | | ,609 |
| Statement 11 | ,671 | | | | ,559 |
| Statement 13 | ,671 | | | | ,425 |
| Statement 8 | ,580 | | | | ,431 |
| Statement 9 | ,559 | | | | ,442 |
| Statement 12 | ,530 | | | | ,643 |
| Statement 7 | ,524 | | | | ,646 |
| Statement 18 | | ,769 | | | ,432 |
| Statement 19 | | ,754 | | | ,579 |
| Statement 20 | | ,746 | | | ,517 |
| Statement 15 | | ,576 | | | ,535 |
| Statement 25 | | | ,752 | | ,517 |
| Statement 16 | | | ,679 | | ,628 |
| Statement 24 | | | ,677 | | ,694 |
| Statement 17 | | | ,579 | | ,687 |
| Statement 14 | | | ,558 | | ,643 |
| Statement 26 | | | | ,769 | ,550 |
| Statement 27 | | | | ,731 | ,645 |
| Statement 3 | | | | ,675 | ,612 |
| Statement 4 | | | | ,540 | ,550 |
| Cronbach Alpha | ,863 | ,832 | ,768 | ,671 | |
| Cronbach Alpha (Scale) | ,896 | | | | |
| Eigenvalue | 7,393 | 1,839 | 1,637 | 1,380 | |
| Explained Variance Percentage | 33,604 | 8,359 | 7,441 | 6,272 | |
| Total Explained Variance Percentage | 19,257 | 14,416 | 12,167 | 9,836 | |
| Total Explained Variance Scale Percentage | 55,567 | | | | |
| Kaiser-Meyer-Olkin Sample Measurement | | | | | ,883 |
| Bartlett Sphericity Test | | Approximate Chi-square | | | 3633,683 |
| | df | 231 | | | |
| | Sig. (Significance) | ,000 | | | |

In order to achieve the construct validity in the research, confirmatory factor analysis (CFA) has been applied to the quality-of-life scale. The scale has shown a 4-dimensional structure different from the original. As a result of EFA, the following results have been obtained: KMO value =, 883, Bartlett Test = 3633,683, df = 231, p <. 000. The total variance value of the quality of life scale has been determined as 55,567%.

According to the results of confirmatory factor analysis (CFA) on the quality of life scale, it has been determined that 22 statements and 4 dimensional structures are confirmed. In addition, general fitness and absolute fitness values of quality of life scale have been determined as $X^2$= 512,11 df=198, $X^2$/df=2,58, RMSEA=0,063, GFI=0,90, CFI=0,96, NFI= 0,94, NNFI=0,96, IFI= 0.96, AGFI= 0,87, RFI= 0,93 and RMR= 0,054.

In the quality of life measurement model, AGFI, GFI, NFI, RFI, RMSEA and RMR values have exhibited acceptable fitness. The ratio of chi-square value to freedom value and the NNFI, CFI and IFI values have been found to be in good fitness range. The obtained values are within the accepted limits in the literature (Çapık, 2014: 199; Çokluk et al., 2010: 271; İlhan & Çetin, 2014: 31; Kline, 2005: 137- 144; Meydan & Şeşen, 2015: 33; Seçer, 2015:190; Varol, 2014: 227).

22 observed variables and 4 implicit variables have been designed in the research model. Since there is no observed variable that does not support the model, no exclusions have been made from the model. PS1 and PS2, PS6 and PS7, OZ2 and OZ3, OZ4 and OZ5, and SF3 and SF4 observed valuables have been connected to each other via bilateral path. It has been observed that absolute fit indices have increased in the model.

In the Figure 1 below, the result diagram of the quality of life measurement model (standard solution and t values) is provided. When the regression coefficients and t values of the quality of life measurement model (standard solution) are examined, it has been determined that the level is significant at 01 level and the model is confirmed.

**Figure 1.** *Results of Quality of Life Measurement Model (Standard Solution and t values)*
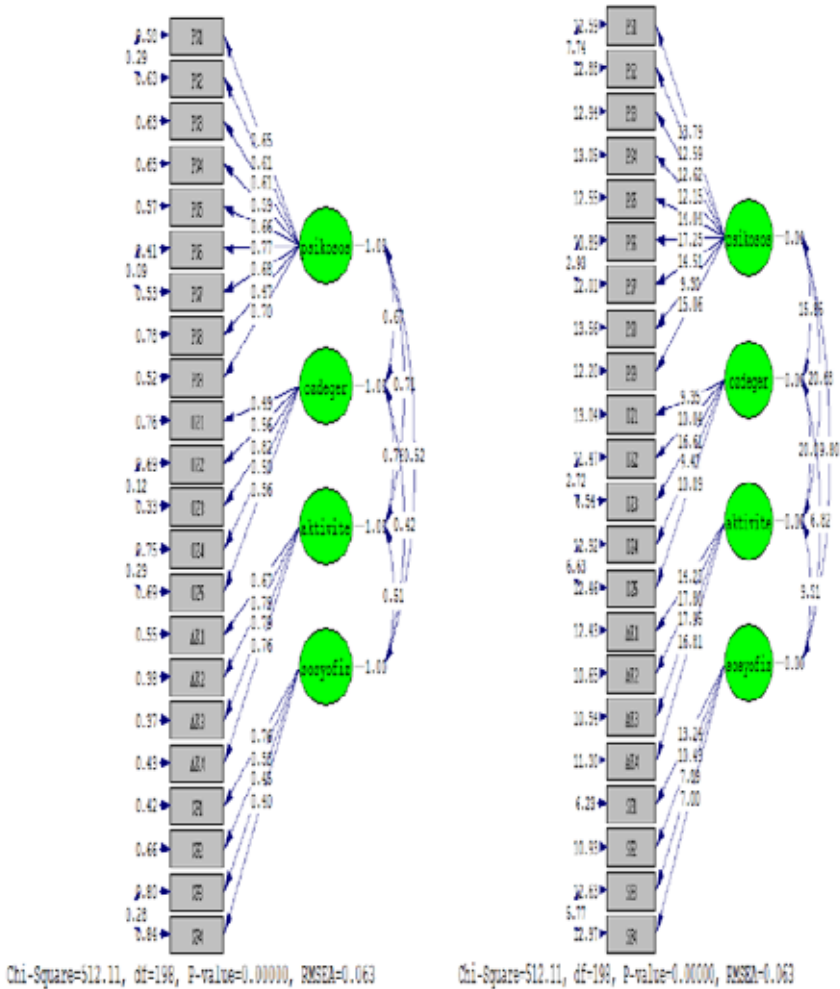


According to the results of analysis done between the socio-demographic characteristics given in Table 3 and quality of life scale; no significant differences have been determined in terms of gender, marital status, age, educational status, income status and spouse employment status. However, a significant difference has been determined among the number of children (F = 3,723; p = .003 <.05), workplace position (F = 5,304; p = .000 <.05) and employment duration (F = 8,535; p = .000 <.05). Therefore, the hypothesis H1 has been partially accepted.

**Table 3.** *Differences Analyses between Socio-Demographic Characteristics and Quality of Life Scale*

| | | Quality of Life Scale | | | | | |
|---|---|---|---|---|---|---|---|
| | | n | | SS | t / F | p | Difference |
| Gender | Male | 352 | 3,84 | ,559 | ,375 | ,708 | N/A |
| | Female | 48 | 3,81 | ,559 | | | |
| Marital Status | Married | 297 | 3,86 | ,558 | 1,287 | ,199 | N/A |
| | Single | 103 | 3,77 | ,557 | | | |
| Age | 24 and below | 29 | 3,78 | ,516 | 1,927 | ,105 | N/A |
| | 25-34 | 165 | 3,76 | ,543 | | | |
| | 35-44 | 144 | 3,88 | ,551 | | | |
| | 45-54 | 56 | 3,97 | ,568 | | | |
| | 55 and above | 6 | 3,68 | ,993 | | | |
| Number of children | N/A | 104 | 3,78 | ,556 | 3,723 | ,003 | 3-6 |
| | 1 Child | 61 | 3,74 | ,553 | | | |
| | 2 Children | 73 | 3,87 | ,481 | | | |
| | 3 Children | 110 | 3,91 | ,594 | | | 4-6 |
| | 4 Children | 38 | 4,03 | ,532 | | | |
| | 5 and more children | 14 | 3,40 | ,499 | | | 5-6 |
| Educational Status | Primary School | 80 | 3,89 | ,561 | 1,418 | ,237 | N/A |
| | High School | 273 | 3,81 | ,564 | | | |
| | Associate | 32 | 3,81 | ,533 | | | |
| | Undergraduate | 15 | 4,08 | ,447 | | | |
| Workplace position | Head Chef | 32 | 4,03 | ,549 | 5,304 | ,000 | 1-8 |
| | Asst. Head Chef | 58 | 3,96 | ,524 | | | 2-8 |
| | Section Chef | 134 | 3,83 | ,556 | | | 3-8 |
| | Section Chef | 67 | 3,79 | ,531 | | | 4-8 |
| | Cook | 49 | 3,82 | ,544 | | | 5-8 |
| | Chef Assistant | 34 | 3,79 | ,559 | | | 6-8 |
| | Intern | 8 | 4,27 | ,190 | | | 7-8 |
| | Dishwasher | 18 | 3,22 | ,481 | | | |
| Income Status | 0-350 | 2 | 3,40 | ,642 | 1,372 | ,234 | N/A |
| | 351-650 | 2 | 4,25 | ,224 | | | |
| | 651-900 | 13 | 3,69 | ,528 | | | |
| | 901- 1300 | 91 | 3,80 | ,554 | | | |
| | 1301-2800 | 219 | 3,82 | ,559 | | | |
| | 2801 and above | 73 | 3,95 | ,560 | | | |
| Spouse Employment Status | Spouse is working | 78 | 3,87 | ,589 | ,849 | ,429 | N/A |
| | Spouse is not working | 219 | 3,85 | ,547 | | | |
| | No spouses | 103 | 3,77 | ,557 | | | |
| Employment Duration | Less than 8 hours | 174 | 3,95 | ,522 | 8,535 | ,000 | 1-2 |
| | 9-11 hours | 188 | 3,72 | ,549 | | | |
| | 12 hours and above | 38 | 3,89 | ,648 | | | |

Correlation analysis has been performed to test the relationship between the sub-dimensions of quality of life scale and to examine the H2 hypothesis. As a result of the correlation analysis, ,584, ,754, ,795 and ,882 β (beta) coefficients have been obtained. These coefficients have bilateral significance at a level of 0.01 and a positive and significant relationship has been determined between the dimensions. The tested hypothesis H2 has been accepted.

Simple linear regression analysis has been performed to determine the effects of the sub-dimensions of quality of life on the quality of life scale. According to the results of the analysis:

*Table 4. Results of Regression Analysis on Psycho-Social Dimension and Quality of Life Scale*

|  | β | $t$ | Sig. | F | p | $R^2$ |
|---|---|---|---|---|---|---|
| Constant |  | 11,906 | ,000 | 1388,107 | ,000 | ,777 |
| Psycho-Social Dimension | ,882 | 37,257 | ,000 |  |  |  |

In Table 4, the explanation ratio of psycho-social dimension on the change in quality of life scale is .777%. A positively significant and strong relationship at the level of .05 (β=,882; t= 37,257; p= .000<,05) has been determined between psycho-social dimension and quality of life scale.

**Table 5.** *Results of Regression Analysis on Activity Dimension and Quality of Life Scale*

|  | β | $t$ | Sig. | F | p | $R^2$ |
|---|---|---|---|---|---|---|
| Constant |  | 13,692 | ,000 | 685,366 | ,000 | ,633 |
| Activity Dimension | ,795 | 26,179 | ,000 |  |  |  |

In Table 5, the explanation ratio of activity dimension on the change in quality of life scale is .633%. A positively significant and strong relationship at the level of .05 (β=,795; t= 26,179; p= .000<,05) has been determined between activity dimension and quality of life scale.

**Table 6.** *Results of Regression Analysis on Self-Assessment Dimension and Quality of Life Scale*

|  | β | $t$ | Sig. | F | p | $R^2$ |
|---|---|---|---|---|---|---|
| Constant |  | 23,159 | ,000 | 524,708 | ,000 | ,569 |
| Self-Assessment Dimension | ,754 | 22,907 | ,000 |  |  |  |

In Table 6, the explanation ratio of self-assessment dimension on the change in quality of life scale is .569%. A positively significant and strong

relationship at the level of .05 (β=,754; t= 22,907; p= .000<,05) has been determined between activity dimension and quality of life scale.

**Table 7.** *Results of Regression Analysis on Socio-Physical Dimension and Quality of Life Scale*

|  | β | t | Sig. | F | p | R² |
|---|---|---|---|---|---|---|
| Constant |  | 18,081 | ,000 | 205,847 | ,000 | ,341 |
| Socio-Physical Dimension | ,584 | 14,347 | ,000 |  |  |  |

In Table 7, the explanation ratio of socio-physical dimension on the change in general quality of life scale is .341%. A positively significant and strong relationship at the level of .05 (β=,584; t= 14,347; p= .000<,05) has been determined between socio-physical dimension and quality of life scale.

## CONCLUSION AND SUGGESTIONS

The WHOQOL-BREF TR scale, developed by the World Health Organization for the measurement of quality of life, adapted to Turkish by Eser et al. (1999) and undergone reliability works, is used in the research. The aim of the study has been determined to measure the quality of life of individuals working in 4- and 5-star hotel kitchens in Antalya. The main reason for the application of the research is that it is important to measure that the quality of life of kitchen employees who work in a sector, which requires physical and mental power, has a stressful working environment and long working hours, is very important in terms of tourism industry, tourism establishments and kitchen workers.

According to the results of the study, it has been determined that the quality of life of kitchen workers is at a good level (x̄3,83). In addition, it has been determined that they feel good psycho-socially (x̄3,91), they are slightly above the good level in terms of performing activities (x̄4,12), they are above the moderate level in terms of self-assessment (x̄3,56) and they are above the moderate level in terms of socio-physical assessment (x̄3,74).

The lowest score for each expression of quality of life scale has been defined as "1" and the highest score defined as "5". In the research, the lowest point is calculated as "22" and the highest as "110" for 22 statements within the total quality of life scale assessed. Upon calculation of the quality of life scores of confirmed dimensions as a result of explanatory factor analysis (EFA) and confirmatory factor analysis (CFA), the lowest point for psycho-social dimension is calculated as "9" and the highest as "45", the lowest point for activity dimension as "4" and the highest as

"20", the lowest point for self-assessment dimension as "5" and the highest as "20", the lowest point for socio-physical dimension as "4" and the highest as "20" and the lowest point for quality of life from the total scale as "22" and the highest as "110".

Upon assessing the scores of quality of life dimensions related to quality of life scale; it has been found that the psycho-social dimension is (35,19), the activity dimension is (16,5), the self-assessment dimension is (17,83), the socio-physical dimension is (14,96), and the quality of life scale is (84,48).

The results obtained from the studies measuring the general quality of life of university students are similar to the average score obtained from psycho-social and activity dimensions (Avcı & Pala, 2004; Gültekin & Dereboy, 2011). In another study, the average scores of the quality of life dimensions obtained are similar to the scores obtained in our study (Nayir et al., 2016).

According to the results of the research on nursing students who will be exposed to intense stress when they start working life; It has been found that quality of life is at a good level due to some factors that will affect the quality of life (Yıldırım, Kılıç & Akyol, 2013). These results support the results of our study.

In the research on health workers who have a stressful working environment such as kitchen workers, it has been determined that the general quality of life levels of the employees are moderate (Yıldırım & Hacıhasanoğlu, 2011). These results are not similar to the results of our study.

There are different variables such as depression, anxiety, alcohol, and drug use levels in many research groups in which quality of life is measured. In addition, in the studies conducted on sick-elderly individuals, it was found that the quality of life of the individuals was very low (Dişsiz, Beji & Oskay, 2015; Gülseren, Gümüş & Orgun, 2013; Saatçioğlu, Yapıcı & Çakmak, 2008; Sarıarslan et al., 2015; Tekinarslan, 2017). These results are not similar to the results of our study.

Quality of life levels are listed from highest to lowest as intern, head chef, assistant head chef, section chief, chef, section chef, chef assistant and dishwashers. The reasons for the interns having highest quality of life is being aware of the fact that they are working temporarily in enterprises, having less than 8 hours of working time, doing the works that are considered to be the simplest among the kitchen workers and not having problems in weekly leave.

Quality of life has been found to be higher in married male kitchen employees. In addition, the quality of life increases as the number of children increases. It has been determined that the quality of life of the kitchen employees who have bachelor's degree is high. According to income status, it has been determined that the quality of life increases as the income level increases.

Explanatory factor analysis (EFA) and confirmatory factor analysis (CFA) have been performed in order to ensure the structural validity of the quality of life scale used in the research. According to the results of explanatory factor analysis (AFA); it has been found that it has a structure of 22 expressions and 4 dimensions and does not preserve the original structure of the scale. The results of confirmatory factor analysis (CFA) exhibit that fitness values are within the accepted values in the literature. It has been determined that 22 statements and 4 dimensional structures obtained as a result of explanatory factor analysis are confirmed.

In the research, simple linear regression analysis has been performed to determine the effect of sub-dimension of quality of life scale on the scale and the most effective sub-dimension. According to the results obtained, it is concluded that the most effective dimension is psycho-social. It has been revealed that the explanation ratio of the change in the scale has been realized as 77,7%.

The research results are limited to 4- and 5-star hotel kitchen employees providing services in Antalya. Subsequent studies to be carried out may also include the kitchen personnel working in all tourism businesses providing services in Turkey and obtained results may be generalized.

In order to increase the level of education of kitchen workers, opportunities can be offered to them to graduate open high school and the related departments of distance education. In addition, it can be ensured that the wages given are adjusted to the current living standards to increase the quality of life.

Legislative arrangements can be made for kitchen employees to receive ranks. Ranks can be given to the individuals who fulfill the conditions determined by the institutions and organizations. A professional law can be adopted for kitchen employees. Vocational standards can be created by assigning seniority ranks objectively. In this way, kitchen employees' difficulties in job guarantee can be eliminated and living standards can be increased.

Kitchen employees without additional income (tips) may be given bonuses at certain times of the year. The services can be negotiated with the

service department and a fair share from the tips can be ensured. With this fair distribution, the quality of life of individuals can be increased.

Kitchen employees are constantly considering some issues about work, even on their leave days. This situation is caused by the intensive work of the individual throughout the year. Psychologist service can be provided to support kitchen workers. The psychologist can communicate personally with the individuals and can help overcome problems such as anxiety, concern and fear.

Acupuncture treatment method, which has healing effect in the body without taking medication support periodically to eliminate physical pain of kitchen employees, can be applied by expert physiotherapists to increase physical quality of life.

# REFERENCES

Akyol, D. A. (1993). Yaşam Kalitesi ve Yaklaşımları. *Ege Üniversitesi Hemşirelik Yüksek Okulu Dergisi,* 9 (2), 75-80.

Arıoğlu, S., Beğer T. & Kaan, M. (1994). Yaşlılarda Evde Bakım ve Yaşam Kalitesine Katkısı. *Aktüel Tıp Dergisi,* 9 (2), 7-16.

Arslan, Ş. & Kutsal, Y.G. (1999). Geriatride Yaşam Kalitesinin Değerlendirimi. *Turkish Journal Of Geriatrics*, 2 (4), 173-178.

Avcı, K. & Pala, K. (2004). Uludağ Üniversitesi Tıp Fakültesinde Çalışan Araştırma Görevlisi ve Uzman Doktorların Yaşam Kalitesinin Değerlendirilmesi. *Uludağ Üniversitesi Tıp Fakültesi Dergisi,* 30 (2), 81-85.

Bayramova, N. (2000). Psoriasisli Hastaların Yaşam Kalitesi ve Yaşam Kalitesini Etkileyen Faktörlerin İncelenmesi. Yayımlanmamış Yüksek Lisans Tezi, Ege Üniversitesi Sağlık Bilimleri Enstitüsü, İzmir.

Bekir, H. Ş., Şahin, H. & Tekindal, A. (2012). Konaklama Tesislerinde Kalan Ailelerin Yaşam Kalitesi. *Zeitschrift Für Die Welt Der Türken Journal of World of Turks*, ZfWT 4 (2), 233-246.

Boregge, S. B., Olmos, J. G. & Morales, A.U. (2014). Factorial Structural Analysis of The Spanish Version of WHOQOL-BREF: An Exploratory Structural Equation Model Study. *Quality of Life Research,* 23 (8), 2205-2212.

Boylu, A. A. & Paçacıoğlu, B. (2016). Yaşam Kalitesi Göstergeleri. *Akademik Araştırmalar ve Çalışmalar Dergisi,* 8 (15), 137-150.

Çapık, C. (2014). Geçerlik ve Güvenirlik Çalışmalarında Doğrulayıcı Faktör Analizinin Kullanımı. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi*, 17 (3), 196-205.

Çokluk, Ö., Şekercioğlu, G. & Büyüköztürk, Ş. (2010). *Sosyal Bilimler İçin Çok Değişkenli İstatistik: SPSS ve Lisrel Uygulamaları.* Pegem Yayınları, Ankara.

Demirkıran, S. (2012). Yaşam Kalitesi ve Sağlık Çalışanları. Yayımlanmamış Yüksek Lisans Tezi, Beykent Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Deveci, B. & Avcıkurt, C. (2017). İş-Aile Çatışması ve İş Stresinin Yaşam Kalitesine Etkisi: Büyük Ölçekli Mutfak Çalışanları Üzerine Bir Araştırma. *Akademik Sosyal Araştırmalar Dergisi,* 5 (40), 313-331.

Dişsiz, M., Beji, N. & Oskay, Ü. (2015). The Effects of Alcohol Dependence on The Quality of Life and Sex Life of Women. *Substance Use & Misuse,* 50 (11), 1373-1382.

Eser, E. (2014). Sağlıkla İlgili Yaşam Kalitesinin Kavramsal Temelleri ve Ölçümü. *Türk Nöroloji Dergisi (Derleme)*, 20 (1), 1-4.

Eser, S. Y., Fidaner, H., Fidaner, C., Elbi, H., Eser, E. & Göker E. (1999). Yaşam Kalitesinin Ölçülmesi (Evaluation of quality of life).WHOQOL-100 ve WHOQOOL-BREF. *3P Dergisi,* 7 (2), 5-13.

Feder, K., Michaud, D. S., Keith, E.S., Voicescu, A.S., Morro, L., Than, J., Guay, M., Denning, A., Bower, J. T., Lavigne, E., Whelan, C. & Berg F. (2015). An Assessment of Quality of Life Using WHOQOL-BREF among Tici-pants Living in the Wind Turbines. *Environmental Research Science Direct*, 142, 227-238.

Gültekin, B. K. & Dereboy, İ. F. (2011). The Prevalence of Social Phobia, and its Impact on Quality of Life, Academic Achievement, and Identity Formation in University Students. Turkish Journal of Psychiatry, 22 (1), 1-8.

İlhan, M. & Çetin, B. (2014). LISREL ve AMOS Programları Kullanılarak Gerçekleştirilen Yapısal Eşitlik Modeli (YEM) Analizlerine İlişkin Sonuçların Karşılaştırılması. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi,* 5(2), 26-42.

Kenneth, C. L., Micholas, A. C. & Sirgy, M. J. (2012). *Prologue: The Development and Evolution of Research on Social* İndicators *and Quality of Life (QOL).* Handbook of Social Indicators and Quality of Life Research. Springer Science & Business Media, USA.

Keskin, G., Gümüş, A. B. & Orgun, F. (2013). Quality of Life, Depression, and Anxiety Among Hepatitis B Patients. *Gastroenterology Nursing,* 36 (5),346-356.

Kline, R. B. (2005). *Principles And Practice of Structural Equation Modeling* (2 nd Edition), Guilford Press, New York.

Meydan, C. H. & Şeşen, H. (2015). *Yapısal Eşitlik Modellemesi: Amos Uygulamaları*. (2. Basım), Detay yayıncılık, Ankara.

Morkoç, K. D. & Erdönmez, C. (2018). Yükseköğretim Öğrencilerinin Yaşam Kalitesine Yönelik Algıları: Çanakkale Onsekiz Mart Üniversitesi Örneği. *Yönetim Bilimleri Dergisi*, 16 (32), 509-532.

Nayir, T., Uskun, E., Yürekli, M. V., Devran, H., Çelik, A. & Okyay R. A. (2016). Does Body Image Affect Quality of Life?: A Population Based Study. PLoS ONE 11 (9), e0163290. https://doi.org/10.1371/journal.pone.0163290

Oktik, N. (2004). *Huzurevinde Yaşam ve Yaşam Kalitesi: Muğla Örneği* (1.Basım), Muğla Üniversitesi Rektörlük Yayınları, Muğla.

Okyay, P., Atasoylu, G., Önde, M., Dereboy, Ç. & Beşer, E. (2012). Kadınlarda Yaşam Kalitesi Anksiyete ve Depresyon Belirtilerinin Varlığında Nasıl Etkileniyor? Kesitsel Bir Alan Çalışması. *Türk Psikiyatri Dergisi,* 23 (3),178-188.

Öksüz, E. & Simten, M. (2005). *Sağlığa Bağlı Yaşam Kalitesi Kalitemetri* (1. Basım),  Başkent Üniversitesi Yayınları, Ankara.

Öztuna, B. (2007). ISO 9001:2000 Kalite Yönetim Sisteminin İş Yaşamı Kalitesine Katkısı:  Bir Araştırma. Yayımlanmamış Yüksek Lisans Tezi, Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.

Perim, A. (2007). Trakya Üniversitesi Eğitim, Araştırma ve Uygulama Hastanesinde Çalışan Hemşirelerin Kaliteli Yaşam Algısının Belirlenmesi. Yayımlanmamış Yüksek Lisans Tezi, Trakya Üniversitesi Sağlık Bilimleri Enstitüsü, Edirne.

Saatçioğlu, Ö., Yapıcı, A. & Çakmak, D. (2008). Quality of Life, Depression and Anxiety in Alcohol Dependence. *Drug and Alcohol Review,* 27(1), 83-90.

Sarıarslan, H.A., Gülhan, Y. B., Ünalan, D., Baştürk, M. & Delibaş, Ş. (2015). The Relationship of Sleep Problems To Life Quality and Depression. *Neurosciences,* 20 (3), 236-242.

Seçer, İ. (2015). *SPSS ve LISREL ile Pratik Veri Analizi: Analiz ve Raporlaştırma* (2. Basım), Anı Yayıncılık, Ankara.

Sirgy, M. J., Efraty, D., Sıegel, P. & Lee, D-J. (2001). A New Measure of Quality of Work Life (Qwl) Based on Need Satısfactıon and Spillover Theories. *Social Indicators Research: An International and Interdisciplinary Journal for Quality of Life Measurement, Springer* 55 (3), 241-302.

Spilker, B. (1996). *Quality of Life and Pharmacoeconomics in Clinical Trials* (2nd Edition), Lippincott-Raven Publishers, New York.

Tekinarslan, E. (2017). Relationship between Problematic Internet Use, Depression and Quality of Life Levels of Turkish University Students. *Journal of Education and Training Studies,* 5 (3), 167-175.

Top, M. Ş., Özden, S.Y. & Sevim, M. E. (2003). Psikiyatride Yaşam Kalitesi. *Düşünen Adam,* 16 (1), 18-23.

Torlak, S. E. & Yavuzçehre, P. S. (2008). Denizli Kent Yoksullarının Yaşam Kalitesi Üzerine Bir İnceleme. Çağdaş Yerel Yönetimler Dergisi, 17 (2), 23-44.

Tosun, K. A. (2013). Yaşam Kalitesi Ekseninde Şekillenen Alternatif Bir Kentsel Yaşam Modeli: Yavaş Kentleşme Hareketi. *Uludağ Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi,* 32 (1), 215-237.

Van Kamp, I., Leidelmeijer, K., Marsman, G. & Hollander, D. A. (2003). Urban Environmental Quality and Human Well-Being Towards a Conceptual Framework and Demarcation of Concepts; a Literature Study. *Landscape and Urban Planning*, 65 (1), 5-18.

Varol, Y. K. (2014). Beden Eğitimi Sürekli Kaygı Ölçeğinin Türkçeye Uyarlanması: Geçerlik ve Güvenirlik Çalışması. *International Journal of Human Science*, 11 (1), 221-235.

Veenhoven, R. (2000). The Four Qualities of Life Ordering Concepts and Measures of The Good Life. *Journal of Happiness Studies*, Netherlands: Kluwer Academic Publishers, 1, 1-39.

Ventegodt, S., Merrick, J. & Andersen, N. J. (2003). Quality of Life Theory I. The IQOL Theory: An Integrative Theory of the Global Quality of Life Concept. *The Scientific World Journal,* 3, 1030-1040.

WHO, (Whoqol Group). (1997). Measurıng Quality of Life. Programme on Mental Health Division. The World Health Organization Quality of Life Instruments.

Yaman, M. (2000). İnsan Kaynakları: Kişi ve Kurumlara Öneriler (1. Basım), Papatya Yayıncılık, İstanbul.

Yeşilbalkan, Ö. U., Akyol, A. D., Çetinkaya, Y., Altın, T., & Ünlü, D. (2005). Kemoterapi Tedavisi Alan Hastaların Tedaviye Bağlı Yaşadıkları Semptomlar ve Yaşam Kalitesine Olan Etkisinin İncelenmesi. *Ege Üniversitesi Hemşirelik Yüksek Okulu Dergisi,* 21 (1), 13-31.

Yıldırım, A. & Hacıhasanoğlu, R. (2011). Sağlık Çalışanlarında Yaşam Kalitesi ve Etkileyen Değişkenler. *Psikiyatri Hemşireliği Dergisi,* 2 (2), 61-68.

Yıldırım, Y., Kılıç, S. P. &Akyol, A. D. (2013). Relationship Between Life Satisfaction And Quality Of Life in Turkish Nursing School Students. *Nursing and Health Sciences,* 15 (1), 415-422.

Zhao, B., Heath, C. J. & Forgue R. E. (2005). Quality of Life and Use of Human Services among Households. *Consumer Interest Annual*, 51 (1), 83-106.

Zorba, Erdal. (2014). Yaşam Kalitesi ve Fiziksel Aktivite. 10Th. International Sports Sciences Congress, 82-85. Web: http://www.erdalzorba.com/41_ Yasam Kalitesi-Ve-Fiziksel-Aktivite,-ZORBA-Erdal.html adresinden 10.04. 2019'da alınmıştır.

# A FINANCIAL INSTRUMENT FOR INDIVIDUALS HAVING ISLAMIC SENSITIVITY: SUKUK

CHAPTER

2

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## INTRODUCTION

One of the factors impinging upon individuals' investment choices is their own religious beliefs. Specifically in Islam faith which forbids return-interests interest-free financial instruments attract higher value in the eyes of Muslim investors. One of these Islamic financial instruments of which popularity has recently incremented is Sukuk and this instrument can be categorized as a product bearing the essentials to meet the investors' demand while aligning with the very core of Islamic finance system. In Turkish legislation Sukuk is an asset regulated as "lease certificate" and it exhibits quite strong potential to bolster. In the domain of interest-free financial instruments Sukuk, a.k.a Islamic security or interest-free bond, is the one having achieved the biggest success in recent times. In Turkey appropriate legal regulations have been enacted and the first Sukuk issuances have thus been actualized. Upon providing a generic definition of Sukuk concept and clarifying the types it is aimed to share insights in this paper on trading of lease certificates which refers to Sukuk practices in Turkey.

## SUKUK CONCEPT

Sukuk is depicted as the "financial certificates that represent equal-value shares on an asset, interest, service, particular project and/or existing investment" (Durmuş, 2010:143). Sukuk can also be defined as "Islamic security". Sukuk is an investment instrument that can enable gaining revenues from a real asset or asset pool through exercising an ownership right on such assets (Yean, 2014:3). In another definition Sukuk is depicted as certificates that represent ownership on certain projects, investment transactions or fixed assets (Yakar et al., 2013: 72).

In Sukuk system there are basically three parties; (Bilen, 2016: 253-254):

i) Special Purpose Vehicle Establishments: SPV: By the owners of securitized assets (underlying assets) they are transferred to SPV's to be managed on behalf of Sukuk owner and so as to issue an investment certificate. SPV's are special-purpose establishments founded for securitizing process and management of issuance process. In sum Sukuk is the foundation that can enable coordination between the originator and issuer establishment and those who invest in Sukuk.

ii) Sukuk Owner *Originator-Establishment* (Originator/Obligator): It is the establishment having sold its assets to SPV and operating the fund gained from this transaction. Originator establishments are generically governments and companies. Companies can be interest-free

financial corporations, banks or non-finance private-sector corporations.

iii) Sukuk owners (Investors): Investors that obtain Sukuk both from the issuance process and secondary market.

## SUKUK TYPES

a) **Mudaraba-P*artnership* Sukuk (Based on Labor-Capital Partnership):** Mudaraba is an Arabic-origin word meaning *fighting, beating*. In the literature of finance it signifies a partnership in which one party stakes its labor, experience or art while the other party invests capital. The owner of art or labor also manages the coordination of business. The owner of art or labor holding the manager position is called mudarip while the partner investing capital is called Rabb-ül mal(capital owner). In participation banks participation accounts rely on mudaraba (partnership). As the agent of capital owner participation bank controls the management of mudaraba Sukuk. In Mudaraba contracts the agreements signed between the partners stipulate how much share each partner would obtain from total revenue. In the event of a loss the sole responsibility would be on the capital owner. If there is a malign or explicit fault of the manager who caused a loss by infringing contractual terms, the proprietor would be obliged to retrieve the accrued loss (Yardımcıoğlu et al., 2014: 162).

By signing mudaraba contract, an originator establishment (Mudarip) transfers owned enterprise or asset to the account of a participation bank. Participation bank then issues a Sukuk in the equal-value of the enterprise cost that was transferred. Participation bank delivers the issued Sukuk to capital market. Investment bank is allowed to sell Sukuk as a block but not allowed to offer to the public, or to sell through public offering. Participation bank transfers the funds accrued through Sukuk issuance to the originator establishment. Via this technique it is feasible for the originator establishment to fund its investment. In maturity date enterprise's asset can be sold to the originator establishment in return. Sukuk investors' capital is then amortized. Participation Bank obtains managerial and commission revenues from fund management. The revenue received at maturity date is shared with the Sukuk- owner investor based on the previously signed contract. During maturity period Sukuk investors obtain a dividend income that resembles to stock investors' gain. Thus a secondary market can be established for Mudaraba Sukuk. Investors are then allowed to sell obtained Sukuk according to the current price effective in secondary market (Tekin, 2017:164).

b) **Murabaha Sukuk:** In this Sukuk type the party that issues certificate is termed as property murabaha seller, the party that buys murabaha is called as property buyer and the fund is called as purchase cost of property. In other terms there is a hedge certificate in progress. Certificate owners obtain murabaha property and in the reselling of property they acquire the right to set final sale price. In order for a murabaha-based Sukuk to hold legal- license, it must be publicly traded solely in primary market. In Islamic law it is forbidden to endorse Sukuk endorsement or trade in secondary market since certificates represent property- buyer's debt to the certificate owners therefore credit sale and purchase of debt would offer a sum of interest (Tok, 2009:21). With the funds collected via Murabaha Sukuk goods are purchased in cash and upon adding a certain profit margin they are sold at the maturity date and acquire a right on the final sale price of the investor. The relevant process of Murabaha Sukuk can be outlined as such (Güngören, 2011:108):

- Main contract is signed between the company and debtor.

- Company investors issue Sukuk and obtain Sukuk revenue.

- Company buys the goods from property seller on the current market (spot).

- By adding profit margin company sells the property on its current market price to the debtor on condition that it would be paid as installments in the agreed timeframe.

- Debtor sells the property to a property buyer on the current market.

- Investors acquire final sale value and revenue.

c) **İcara Sukuk(Lease):** It is a type of lease contract in which life-interest of a real estate subjected to a lease-contract can be transferred from the property owner to contract owner. The word (*icara*) lease refers to the rent paid to property owner. Almost identical with financial leasing, İcara Sukuk grants a right of buying the leased asset when the rental period ends. However in addition to ownership right of the property İcara Sukuk owners could exercise the right to earn leasing revenue from an asset. İcara Sukuk can be endorsed, publicly traded in secondary markets and even if rental-asset could become useless due to a disaster or accident, a lease-holder could annul the contract. On the other hand the leased asset is insured against such potential risks in current practices. Depending on the terms of contract lease-revenue ratio can be fixed or volatile for the subject asset in İcara Sukuk (Büyükakın and Önyılmaz, 2012:4). It can thus be argued that to some extent İcara Sukuk allows the owner to be a shareholder of the

asset. Nonetheless, unlike traditional shareholding system in a joint-stock company, this right in İcara Sukuk grants the license to its owner until a maturity date predetermined in the contract (Türker, 2010: 8-9).

**d) Selem Sukuk:** Selem Sukuk is the process of promising to deliver a demanded and predetermined entity until a forward date or in other terms until the maturity date in the contract. To that end funds are paid in advance by investors to SPV (special-purpose company). Selem Sukuk thus refers to the practice implemented by SPV (Bafra, 2016:93-94). Selem contract is an agreement projected upon the delivery of contracted asset to the buyer on a return basis. Unlike murabaha and lease (icara) contracts this type of contact is publicly traded by Islamic banks as a financial instrument mostly for small scale farmers, artisans and merchants (Obaidullah, 2005: 95).

In this type of contracts it is also quite a salient factor to make the subjected asset of contract free from any ambiguity since in this type of contract delivery of goods will be completed at the end of maturity date in the contract. In Islamic law it is a must to select manufacturing goods of which quantity and quality comply with Selem contract. Thus it is forbidden to build these contacts on the quality of a particular good or a specific product of a land because this kind of a contract would involve *garer*, or *ambiguity*, in a different saying (Yanpar, 2014: 99,165).

**e) Muşaraka (Partnership) Sukuk:** Muşaraka is a capital partnership. Müşaraka parties join to the investment together. End-period return is divided among the parties as per müşaraka contract. Muşaraka is related to equal-value certificates issued to initiate a novel project or to develop an existing project. Ownership right is represented by the issued certificate. Müşaraka investors are owners to the extent of their business share. Muşaraka certificates can also be endorsed and they have secondary markets. There are certain nuances that differ mudaraba from muşaraka (Tekin, 2017:165):

In Muşaraka all partners partake in the investment thus all partners exercise a right in management. If the business faces a loss this loss is distributed in an equal proportion with the participation share of investors. In Mudaraba there are only capital-owner partners in one side while on the other side there is the responsible partner in charge of managing the business. According to partnership agreement business loss merely belongs to partners having invested capital. That being the case mudaraba contracts could not become popular (Aktaş, 2016: 11).

In Muşaraka ownership of all assets belongs to all of the partners. In Mudaraba all assets belong to partners having invested capital. In Muşaraka business risk is distributed to all capital-investing partners proportional

to the sum of capital they invested whilst in Mudaraba capital owner is the one coping with the entire business risk. The licentiate or professional is held liable only if there is negligence or malice on his/her part (Aktaş 2017: 15).

**f) İstisna Sukuk (Exception):** In Istisna Sukuk practices SPV enters into a contractual relationship with a subcontractor who is assigned, as a condition of contractual terms, to produce or build the asset constituting the scope of contract (Bafra, 2016: 99). In relation to Istisna Sukuk practice, provided that the nominal value that buyer is to pay equals to the price to pay for an asset or work specified in the contract, the asset could be issued as Sukuk. Besides, in istisna contract, a Sukuk that could also be issued in line with the agreed payment plan between the buyer and seller could as well be dated to different maturity dates (Taylor, 2003: 396).

**g) Vakala Sukuk**: "Vakala" as a term refers to agent, representative. In Vakala Sukuk Sukuk owners are the holders of an investment portfolio controlled by an agent. In this system the main objective is, in return for a service, benefiting from the experiences and knowledge background of the agent so that a portfolio income could be generated for Sukuk owners. Likewise originator establishment can acquire a quality investment portfolio formed by the knowledge and background of the agent. Vakala can be described as a preliminary stage working to facilitate practicing financial models viz. icara (lease), selem, istisna and murabaha (Çürük, 2013: 47).

**h) Hybrid Sukuk:** Hybrid Sukuk refers to issued certificates from an asset pool created by uniting more than one financing contract. In Hybrid Sukuk the said asset pool contains contracts such as icara(lease), murabaha and istisna. Acquiring an asset pool composed of instruments with a range of qualities allows the funds to exhibit an increased mobility. Although murabaha and istisna contracts are forbidden to be sold in secondary markets, hybrid Sukuk can be publicly traded in a secondary market provided that at least 51% of the asset pool belonged is formed by lease contracts. Since contracts that cannot be publicly traded in secondary market are recognized as a part of the pool the income of hybrid Sukuks can only be equivalent to a predetermined fixed ratio (Tarıq, 2004: 21).

## HISTORICAL DEVELOPMENT OF SUKUK

Sukuk practices were first performed by Malaysian Government in 2002. In its early days 51% of Malaysian Sukuks issued in an amount of 500 million USD were sold to Gulf Countries, 30% were sold to Asia, 15% in Europe and 4% were to the USA. In the suggested structure, lands of a public institute *Federal Malaysian Land Office* were sold to an established

SPV (Public Assets Company) and rented from this institute to Malaysian Treasury. In this structure obtained lease revenues were then transferred as profits for people to whom Sukuks issued by SPV were sold (Tok, 2009: 15).

Malaysian Capital Market Board (SC) enforced rigid rules in Sukuk. Unlike other security exports the Board introduced extra obligations for Sukuk. To name a few are, in Malaysia, to be eligible to issue a Sukuk it is mandated to receive approval of "Shariah Advice Commission" recognized by SC and formed by appointed members. In that way it can be officially registered to establish an Islamic business model that lays the ground for issuance. On the other hand data and documents related to the issuance and explanations on the essence of issuance have been proclaimed in a list. It is a must that all issuances are subjected to a rating-measurement recognized by the rating system of SC. Furthermore provided that not all Islamic financial instruments are listed in Malaysian stock exchanges they are required to abide by Fully Automated System for Issuing/Tendering and Real Time Electronic Transfer of Funds and Securities systems enforced by SC (Gray and Arshad, 2007: 283).

It has been monitored that members of Gulf Cooperation Council-Malaysia, Indonesia, Pakistan and Turkey- increased their Sukuk issuance ratio which was around 32 billion US Dollars in 2015 by a ratio of 40 billion US Dollars in 2016. It is envisaged that in 2017 with the entrance of new issuer countries to the market and increase in volumes this forward trend would continue. Sukuk, despite the stall in growth trend, is the asset type that achieved the highest growth. At the end of 2015 circulated Sukuk volume increased by 14% in comparison to 2014 thereby reaching to 342 billion US Dollars. Malaysia maintains its leader position in terms of circulated Sukuk volume and size of issuance. Malaysian issuances represent 55% of total Sukuk volume circulated globally and 88% of Southeast Asian market (http://katilim finans dergisi.com.tr/Sukuk -kira -sertifikasi/, 21.01.2019)

In Sukuk issuance some of the problems that can still pose challenges in most of the countries can be listed as below (Kasımoğlu et al., 2018:11):

i.   The fact that custodian and securities regulations are either not adequately developed or not fully actualized yet,

ii.   The fact that bankruptcy and insolvency regimes are not adequately developed yet,

iii. The fact that taxation systems ignore the features of Sukuk contracts,

iv. The fact that loan and credit assessment tools are not adequately developed yet,

v.  Since there is not a Centralized Board there is inconsistency in the interpretations on conformity with Islamic principles,

vi. The fact that law system faced challenges in the past in default payments,

vii. Negative effects of the incompleteness and immaturity of inter-bank capital markets and central bank's open-market transactions on the functioning of market  liquidity.

Among the factors impinging upon the growth of Sukuk market are standardization, investor  custody, management and liquidity weakness which are emphasized points on an international scale.

**Table 1:** *Main Differences Between Sukuk and Bond*

|  | SUKUK | BOND |
|---|---|---|
| Essence | It is not a debt but represents indivisible shares and rights of concerned investors on  certain assets /projects/ services. | It is the debt of issuer party. |
| Basis | Based on a minimum of 51% tangible assets. It establishes an ownership right of a project to an investor, underlying asset or right/ service. | Not required. Since in general, there is no underlying asset it is not bound to warranty. Creditors can directly demand their loan from the debtor. |
| Warrant | In addition to unstructured extra warrants it has been guaranteed via ownership rights on basic assets or projects. | Mostly, they are uncovered  notes. |
| Capital and Revenue | Not warranted by the issuer party. | Warranted by the issuer party. |
| Aim / Principle | Aims that conform with the principles of interest-free banking are integrated to the issuance in line with effective principles. | They can be issued for any given aim. |
| Risks for Certificate Owners | Certificate owners are affected by the performance of main assets/ projects in the respective ratio of their shares. Also debtor's performance can also affect Sukuk payments. | Since there is not an underlying asset, bond  owners  are unaffected by the performance of underlying asset but merely under the effect of financial status of debtor. |
| Originator | Ordinary partnership in which natural and legal persons bearing capital  company or merchant features cooperate and unite their wealth in reference to a written contract. | Public and private corporate legal persons. |

Resource: Kuveyt Turk Lease certificates Asset-Leasing Ltd. Company, What are lease certificates?, http://www.ktportfoy. com.tr/yatirimci-kilavuzu/sukuk-kira-sertifikalari/kira-    sertifika-lari-sukuk-nedir.34.aspx, 04.01.2019)

**Graphic 1.** *Global Sukuk Issuance*

Chart 1

**Global Sukuk Issuance**
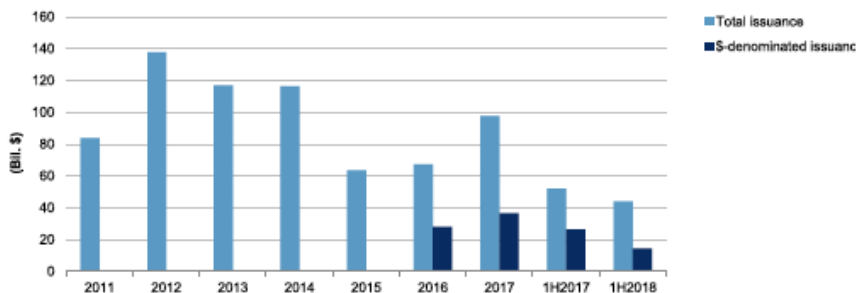


Source: S&P Global Ratings, Eikon.

As also exhibited in Graphic 1, in the first half of 2018, there was a sharp fall in Sukuk  issuance compared to the same period in 2017.

**https://www.lamiafinanza.it/en/finance/islamic-finance/55020-why-the-global-sukuk-mar-ket-is-stalling-in-2018, 16.01.2019**

**Graphic. 2** *. Sukuk  Issuance by Regions*

Chart 2

**Sukuk Issuance By Region**
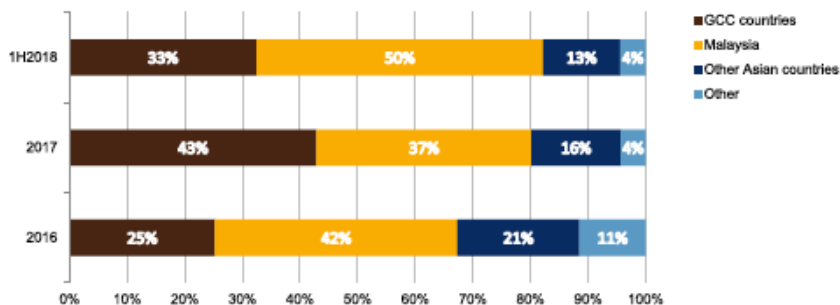


Source: S&P Global Ratings, Eikon. GCC--Gulf Cooperation Council.

**https://www.lamiafinanza.it/en/finance/Islamic-finance/55020-why-the-global-Sukuk -market-is-stalling-in-2018, 16.01.2019**

As demonstrated in Graphic 2 too, compared to Asian-Pacific states, it is evidenced that particularly for GCC formation constituted by 6 Arab Nations near Persian Gulf, there was a notable fallback in Sukuk issuance due to low petrol prices in 2017 and 2018.

## SUKUK BUSINESS OPERATIONS IN TURKEY

When we investigate the growth of Sukuk market in Turkey it is noted that once the legal substructure was corrected after the notice released in April 2010 by SPK it could then be viable to commence Sukuk issuance. In August 2010 Kuveyt Türk Participation Bank performed the first Sukuk issuance of Turkey by applying Wakala structure (Çanakçı, 2014.54). Sukuk business operations in Turkey were commenced via lease certificates issued by Asset Leasing Companies (ALC). Among a list of Sukuk practices only a legislation was issued for lease Sukuk also known as icara Sukuk. Capital Markets Board put into effect a new regulation to allow transaction of novel capital market instruments in the financial  markets of Turkey and in accordance  Serial: III, No: 43 notification on "Principles on Lease certificates and Asset Leasing Companies" was effectuated in 01/04/2010 dated, no 27539 Official Gazette. Upon this notification it became viable for private-sector companies to issue Sukuk and this instrument allowed those companies to acquire funds from capital markets (Yılmaz, 2014:92).

The biggest Sukuk/lease certificate issuance took place in Turkey on 26 September  2012 with the cooperation of Government of Turkish Republic, Undersecretariat of Treasury Asset  Leasing Company. The amount of issued Sukuk /lease certificates is 1,5 Billion TL. These Sukuk /lease certificates were listed with 2,803% profit margin in Irish Stock Exchange while graded with BB note by Standard &Poor's (Yardımcıoğlu et al., 2014: 216). On 10 October 2013 Undersecretariat of Treasury achieved a high amount of 1,25 billion US Dollars for a 5 year-term and 557% lease ratio of Sukuk/ lease certificate issuance. It was reported that the said issuance attracted 330 investors and the demand reached to 6 times above the total amount issued. It was also stated that 27% of Sukuk (lease certificate) was sold to the investors in the Middle East, 19% in Turkey, 19% in England, 14% in Europe, 11% in the  USA, 10% in Asia and other regions (Bilen, 2016: 264). As of 2018 total Sukuk-issuance of participation banks amounted to 15.328.950.047₺ (TL) in Turkey while international issuance amounted to 90.000.000$ (http://www.tkbb.org.tr/diger-istatistikler, 21.01.2019).

In Turkey the basic operation, issuance stages and application process of Sukuk is as listed below (Bafra, 2016:134):

1. Fund-user bank establishes an ALC (asset leasing company) and ALC then issues lease certificates to obtain funds .

2. Investors or right owners purchase issued lease certificates (Sukuk).

3. Total sum of Sukuk is imbursed by the investors or right owners; thereby fund is obtained.

4. In order to purchase the asset to be leased ALC submits collected Sukuk sums to the fund-supplier bank.

5. Purchased asset is leased to the fund-supplier bank and obtained lease sums and revenue is distributed to investors or right owners as Sukuk revenues.

6. In order to amortize Sukuk fund-user bank purchases back the circulated assets in maturity date and assets can thus be returned.

## CONCLUSION AND SUGGESTIONS

In recent years one of the interest-free financial instruments that attracted wider popularity has been Sukuk. Also known as interest-free bond or lease certificate Sukuk is essentially the certificate founded upon a securitized asset. The key distinction between Sukuk and bond is that there is an underlying asset in Sukuk. In Sukuk system asset owner pays the usage right from the predetermined sum in the specified maturity date. Terms are such that obtained revenue of sale in the date of issuance is paid back at maturity date and specified interim payments or maturity date due payment of usage right are refunded to the investor.

In contrast to other Islamic states, in Turkey, Sukuk could be practiced in a comparatively recent time period and it draws attention as the latest fund-collecting version of Islamic banking. An analysis of the markets exhibits the striking increment in the trading volume and quantity of Sukuk. Since it is an investment instrument the system appeals to all sorts of investors regardless of whether or not they have religious sensitivity. A panoramic view of Sukuk usage in Turkey can be summarized as below:

- In Turkey legal regulations in the issuance of Sukuk is dated to a recent year as 2010. Due to this late introduction, development of Sukuk market in Turkey started comparatively later than most Muslim states and sadly could not yet be matured.

- In Turkey legal regulations were merely applied for icare Sukuk which is one of the type of issued Sukuks, hence remaining Sukuk types failed to achieve the desired progress. In the same vein Sukuks issued by Participa-

tion Banks could only be distributed in the name of icare Sukuk or in other words lease certificate.

- In Turkey a majority of issued Sukuks are aimed for large-scale investors whereas Sukuks issued for small and medium scale investors are not yet in desired levels or amounts. It is suggested to effectuate regulations to assist all investors in benefiting from Sukuk issuance.

- In Turkey there is not a mechanism to monitor the compliance of Sukuks with the Islamic law. As an effect, Muslim investors who reside in other states are hesitant on the credibility of Sukuk investment system in Turkey.

In order to improve Sukuk market potential in Turkey, it is suggested to take the recommendations below into account:

- Through visual and print media popularizing the promotion of publicly-traded Sukuks,

- Honing the legal and technical substructure in stock exchange so as to appeal to Sukuk,

- Analyzing the market of developed countries such as Malaysia so as to acquire insights on Sukuk,

- Making investment approach a long term stance and establishing an environment of trust so as to ensure profundity in Sukuk markets,

- Predicting any potential problems in markets and taking appropriate measures to that end,

- Raising the awareness of investors through various seminars and training supports.

# REFERENCES

Aktaş, Mehmet Murat. (2016). "Muşaraka Sukuk and its Regulation in Turkish Law", National Peer-Reviewed Court of Disputes Journal 8. Issue, pp. 1-48.

Bafra, Erdem. (2016). Sukuk and its Practice in Islamic Banking, Ankara: Seçkin Press.

Bilen, Bahar. (2016). "SUKUK AND ACCOUNTING PRACTICES", Journal of Financial Researches and Studies, Vol: 8, No: 15, 249-279.

Büyükakın, Figen and Önyılmaz, Onur. (2012). "Interest-free Financing Bond Sukuk and Turkey Practices", Journal of Financial Researches and Studies, 4 (7), 1-16.

Çanakçı, Mehmet. (2014). "IN A MULTI-POLAR WORLD GROWTH OF ISLAMIC FINANCE MARKETS AND SUKUK ISSUANCES", Turkish Journal of Islamic Economics, Vol. 1, No. 2, pp. 43-58.

Çürük, Suna Ayten. (2013). "Development of Islamic Finance in Turkey, Current Problems and Suggested Solutions", PhD Dissertation, Konya University, Institute of Social Sciences .

Durmuş, Abdullah (2010), "Sukuk as a Modern Finance Instrument and its Islamic Analysis ", Journal of Islamic Law Studies. Sayı16, pp.141-156.

Gray, Robert and Arshad,Ismail. (2007). Regulating Islamic Capital Markets, Islamic Finance the Regulatory Challenge, Edited by Simon ARCHER and Rifaat Ahmed Abdel Karim, John Wiley & Sons (Asia) Pte Ltd, Singapore.

Güngören, M. (2011). Securitization in Participation Banks and Goodness Modeling in Structurally Variant eg. Sukuk Case. İstanbul: T.C. Kadir Has University Institute of Social Sciences (Unpublished PhD dissertation).

Kasımoğlu, Murat; Yetgin, Feyzullah and Küçükçolak, Ali (2018). "Lease Certificates,, Turkey model and a Case Study", Istanbul Journal of Economics - İstanbul Journal of Economics 68, 2018/1, p. 1-44.

Kuveyt Türk Lease Certificates Asset Leasing Ltd, What are lease certificates?, http://www.ktportfoy.com.tr/yatirimci-kilavuzu/sukuk-kira-sertifikalari/kira- sertifikalari-sukuk-nedir.34.aspx, 04.01.2019)

Obaidullah, Mohammed. (2005). Islamic Financial Services, Jeddah: Scientific Publishing Centre, King Abdulaziz University.

Tariq, Ali Arsalan. (2004). "Managing Financial Risks of Sukuk Structure", LounghboroughUniversity.

Taylor, J.M. (2003). "Islamic Banking –The Feasibility of Establishing an Islamic Bank in the United States", AM BUS LAW J, C.XL, 386-416.

Tekin, Abdullah. (2017). "A Comparison between Turkish Lease Certificates and Equal Products in Islamic Finance Markets", SELÇUK UNIVERSITY JOURNAL OF VOCATIONAL SOCIAL SCIENCES, 20(2), 160-174.

Tok, A. (2009). Within the Framework of Islamic Finance Sukuk (Islamic Bond) Practices, Analysis with respect to Participation Banks and Turkey. Ankara: Capital Markets Board Office of Legal Affairs (Competency survey).

Türker, Hülya.(2010). Financial Intermediation in Islamic Finance System (Competency survey), Capital Markets Board, Office of Financial Intermediation Ankara.

Yakar, Soner, Yılmaz, Serkan and Önal, Yıldırım Beyazıt (2013), "As a new Financing Instrument an Analysis of Sukuk-Lease Certificate and Taxation Aspect", Journal of Bankers, No:84, 72-92.

Yanpar, A. (2014), Islamic Finance: Principles, Instruments and Institutes, Scala Press, İstanbul.

Yardımcıoğlu, Mahmut; Ayrıçay, Yücel and Coşkun, Sedat. (2014). "SECURITIZED ASSET WITHIN THE FRAMEWORK OF ISLAMIC FINANCE; SUKUK ANALYSIS IN THE WORLD AND TURKISH MARKET", Kahramanmaraş Sütçü İmam University Journal of Faculty of Economics and Administrative Sciences, 4(1), 157-174.

Yardımcıoğlu, M; Ayrıçay, Y; Sabuncu, İ & Gerekli, İ. (2014). "Sukuk in Turkey: Lease Certificates", Kahramanmaraş Sütçü İmam University Journal of Faculty of Economics and Administrative Sciences, 4(1), 199-222.

Yean, Tan Wan, "Sukuk: Issues and the way Forward", International Lawyers Network Articles, http://www.iln.com/articles/pub_1674.pdf, (28.12.2018).

Yılmaz, Erdal. (2014). "Sukuk as a New Financial Instrument: Types, Turkey Practices and its Taxation", Journal of Accounting and Financing, 61, 81-100.

http://katilimfinansdergisi.com.tr/sukuk-kira-sertifikasi/, date accessed: 21.01.2019

http://www.tkbb.org.tr/diger-istatistikler, date accessed: 21.01.2019

http://www.uyusmazlik.gov.tr/Resimler/Pdfler/Makaleler/30-1120171mehmetmurataktas.pdf, date accessed: 21.01.2019

# SYRIAN REFUGEES IN TURKEY AND INTERCULTURAL SENSITIVITY: STRECTHING HEALTHCARE AND EDUCATION SERVICES TO THEIR LIMITS

CHAPTER

3

Çiğdem KARATEPE

## INTRODUCTION

Situated at the crossroads, Turkey has to embrace an influx of refugees and immigrant workers coming from the Middle Eastern countries such as Irak and Syria and Turkic countries, such as Azerbaijan and Uzbekistan during the last 30 years. At present, Turkey accommodates around 3.607.563 registered Syrian refugees (2018 statistics) and many additional immigrant workers from different countries. While only 153.413 Syrians live in temporary accommodation centres, others have settled throughout Turkey. The majority has been settled down in four cities: İstanbul (558.548), Şanlıurfa (456.754), Hatay (441.197), Gaziantep (417.013). Besides, six other cities accommodate over 100.000 Syrians each. These are Bursa, İzmir, Konya, Adana, Mersin and Kilis (www.goc.gov.tr). Registered refugees gainTemporary Protection Status, which provides individuals to gain access to services, such as health care, education, social assistance and translation (*cf*.Yıldırım *et al.* 2019).

This situation has stretched the limits of Turkey's health and education services, mostly due to their sheer numbers.The Turkish state and its institutions were not prepared for the massive arrival of people with various needs. Moreover, the Turkish state appears to have assumed that refugees were going to be integrated into the existing healthcare and education system (Yıldırım*et al.* 2019). However, the existing system was designed to serve the Turkish population both interms of its capacity and service variety. As a result, the cities in the South East of Anatolia have been particularly under stress in many respects (Ekmekçi (2017); Kilic et al. (2013); Uzun&Sevinç(2015);Yıldırım*et al.*(2019)). However, the situation is not any different in many parts of Istanbul and other metropolitan cities such as Bursa.

Fortunately, in order to lessen the burden on the Turkish health services, 750 Syrian doctors and 750 nurses and midwives and 300 translators were employed in 2018. They were given training by the experts of the Turkish Ministry of Health. This training consists of one-week didactic teaching and 6-week practical education in WHO-supported training clinics (Yıldırım et al. 2019, p. 91). However, as the present study will address, intercultural communication problems cannot be resolved by this modification to the Turkish health system.

Although their educational background did not prepare them to deal with the problems that intercultural communication pose, the professionals in education and health sectors do their best to cope with the challenges the crisis has brought into the system. What is more, nobody seems to have questioned whether their training was up to this overwhelming task at the beginning. Most importantly, their foreign language skills may not apar

with the requirements of intercultural communication situations. They may not have the required skills and the experienceto interact in intercultural settings. Moreover, they do not know how to develop these skills, and perhaps they do not have time to spare to acquire these skills while trying to keep up with the everyday pressures. In order to cope with this new challenge, they need to improve their intercultural communication skills and raise intercultural sensitivity.

This literature review aims to introduce the concepts of intercultural communication and intercultural sensitivity and its importance in situations where people from different cultural backgrounds need to interact. Following this, it will also look at studies investigating working and candidate teachers and nurses who are to facethe new challenge. That is, the article will review some studies carried out on intercultural sensitivity levels of Turkish teacher candidates, teachers, Turkish nursing students and working health personnel.

## Intercultural Sensitivity Concept

Working with people with a different cultural background is a challenging task. In order to work effectively in a multicultural environment, one needs *intercultural communicative competence* and *intercultural sensitivity*. According to Johnson *et al.* (2006, p. 530), Intercultural Competence is ''an individual's effectiveness in drawing upon self-knowledge, skills, and personal attributes in order to work successfully with people from different national cultural backgrounds at home or abroad.''

Individuals who have been brought up in a monocultural environment and who do not have required language skills may not be able to develop *intercultural communicative competence* and *intercultural sensitivity* without external support. If they do not receive support for this, it is inevitable they experience cultural clashes and communication break down. Moreover, people involved in this inefficient interaction may end up developing negative thoughts and feelings. All this may eventually lead to prejudices which hamper interaction.

Bruner (1996:47) explains that our learning and thinking are based on our culture and our upbringing. In this context, our cultural values and the social environment we grow up are the significant factors influencing our social and cognitive maturation. Culture seems to be acrucial factor in forming who we are and how we think and behave. In this respect, our cultural background leads us to behave in specific ways. In situations where we find ourselves interacting with people from other cultural nationalities, we make conscious or unconscious assumptions based on our existing

schemas which are based on our prejudices.On the other hand, our interactants also behave in the same way. In such situations, we may experience a clash of expectations and a communication breakdown (Gumperz, 1982).

In professional situations, participants need some training to become more aware of such tricky situations. When people are alert to this kind of clashes, and their probable undesirable consequences, they may be more careful and considerate so that the interaction can be maintained to provide services. For this reason, it is essential for professionals who work in service sectors, such as health and education need to have in-service training and or pre-service training to enable them to cope with the challenges of intercultural interaction (Karataş(2018); Kilic*et al.* (2013)).

Hammer *et al.* (2003) use the term ''*intercultural sensitivity* to refer to the ability to discriminate and experience relevant cultural differences...'' (p. 422). They defined the term 'intercultural competence' as ''the ability to think and act in interculturally appropriate ways.''(p. 422). They hypothesise that there is a positive and parallel relation between intercultural sensitivity and intercultural competence. The Developmental Model of Intercultural Sensitivity (DMIS) was created by Bennet (1986, 1993). It aims to explain how we perceive a cultural difference.

The model was based on six worldview orientations that individuals go through in the process of acquisition of intercultural competence. The Model assumes that ''... as one's experience of cultural difference becomes more complex and sophisticated, one's potential competence in intercultural relations increases.''(Hammer *et al.* 2003 p.423). That is, individuals, construct their intercultural communication experiences so that they should be ready to involve in interaction with people from other cultures. Those who have spent most of their life in monocultural socialisation internalise their cultural worldview. However, when they find themselves interacting with people from other nationalities, they have difficulty in interpreting and experiencing the difference between their own culture and that of their interactant. The main issue here is reaching the level where they interpret and experience cultural differences appropriately so that they could better understand their own and other's cultures. Hence, their intercultural communicative competence enhances.

Hammer *et al.* (2003, p. 423-424) describe the Model's six orientations, each of which refers to a particular worldview structure with certain kinds of attitudes and behaviour. The first three sets of orientations are described as more *Ethnocentric* which means that one's own culture is expected to be in the centre of his/her life.   The second three-set of orientations are

underthe category of *Ethnorelative* which indicates that one's own culture is experienced within the context of other cultures (ibid, p. 425).

*Ethnocentrism* has three phases: *Denial, Defense Reversal* and *Minimization*. *Denial* of cultural difference happens when an individual's own culture is in the centre of life. It is regarded as the real culture that everyone should adopt. Individuals who are in *Denial* state are not interested in cultural difference. Bennet *et al.* (2003, p. 424) claim that*Denial* state is "the default condition of typical monocultural primary socialisation". Part of the communication problem begins when individuals perceive others from the perspective of their own culture and life experiences. For example, Kilic et al. (2013) reported that nurses working in the hospitals in the East and West of Turkey interpreted what patients demanded from their Cultural perspective and not surprisingly refugee patients did the same thing. As a result of this, participants could not understand each other. As a result, valuable time is wasted, and tired nurses feel overwhelmed.

The second worldview orientation is *Defense* against cultural difference which assumes one's own culture is the only valid one. Their perspective is stereotypical which seems to indicate that they are "openly threatened by cultural difference" (p. 424). According to this perspective, the world is divided into 'us' and 'them'. That is, the individual thinks that his/her culture is superior to that of others. Sadly, it appears that this situation is experienced in some parts of Turkey at present (Ekmekçi (2017), Aygün*et al.* (2015)).

The final phase is called *Minimisation*. When *Minimisation* of cultural difference occurs, the individual's "cultural worldview is experienced as universal" (ibid, p.424). The issues which are referred to as threats in *Defense*phase are now regarded as familiar concepts. At *Minimisation* phase, individuals look for similarities, not the differences between 'us' and 'them'. With intercultural training, both Turkish professionals and refugees can reach this level.

*Ethnorelative*worldview orientation includes three phases. The first of them is *Acceptance* of cultural difference. Individuals begin to see their own culture as just one of many cultures. "By constructing metalevel consciousness" (*ibid*. p. 425), they come to realise that people may be from the different cultural background, but they are equal human beings. They become more skilful and willing to recognise the role cultural differences play in interaction. However, *Acceptance* does not indicate a total agreement. On the contrary, in some cases, people may not agree with all practices and ideologies, but they do not regard this situation as a threat. It

seems that this level of consciousness could only be reached when young generations are educated right from the beginning of their formative years.

*Adoption* to cultural difference is the phase when "the experience of another culture yields perception and behaviour appropriate to that culture" (*ibid*. p. 425). The ability of empathy is associated with this worldview. One's ability indicates that the experience is not only cognitive, but also effective and behavioural. When the *Adoption* process is fully realised, one becomes multicultural in the real sense. "*Integration* of cultural difference is the state in which one's experience of self is expanded to include the movement in and out of different cultural worldviews" (*ibid*.p. 425). An individual experiencing *Integration* identifies his/her self belonging to two or more cultures but does not subscribe to one totally. S/he can shift their frame of reference depending on the situation.

### Intercultural sensitivity of Turkish teachers and teacher candidates

According to Vygotsky's Socio-cultural theory, learning is not only for cognitive development but also for transmission of socio-cultural values, norms and the mindset individuals develop in the process. Vygotsky sees interaction in the heart of cognitive development. Child language acquisition process takes place via interaction during which information related to social and cultural values and norms are transferred. Therefore, children's development is constructed on these cultural values. That is, the socio-cultural values and norms which we learn from our close family members determine our views on life in general and other people's cultural values and norms. In this context, language acquisition and maturation are based on our socio-cultural background (Karatepe (2012); Bruner (1996), p. 47).

School life certainly opens new horizons in individuals' life. What children learn at school is expected to add up to and enrich their process of socio-cultural development. In Turkey, our schools have become more and more multi-cultural with the arrival of refugees and immigrants. In a school environment, teachers and school administrators are expected to have the right qualifications to deal with a multi-cultural setting. However, to what extent they have become qualified to do so is another question begging foran answer. In the coming parts of the article, studies both on intercultural sensitivity of classroom teachers and education programmes which are currently in use in educational faculties in Turkey will be presented.

Karataş (2018) carried out an extensive study with teacher trainers teaching at seven different faculties and 1366 teacher candidates studying at 26 universities in Turkey to find out to what extent they thought that

the education programme implemented in these institutions contributed to trainees' development of intercultural sensitivity. The results of his study show that all trainers and teacher candidates agreed that in general classroom teacher education programmes failed to enable teacher candidates to develop intercultural sensitivity and raise awareness on cultural differences. Moreover, trainers pointed out that the programme had not been designed with the anticipation that teacher candidates would one day teach in amulti-cultural setting. In this respect, the programme was found to be far from being realistic when Turkey's socio-cultural mosaic was considered. Nevertheless, the practicum courses in the programme were regarded as an excellent opportunity to help teacher candidates gain experience in real classroom environment. Teacher trainers warned that even this opportunity could provide only limited access to a multicultural classroom setting because practicum schools were not selected keeping this issue in mind. Trainers suggested that candidates could gain an intercultural sensitivity and raise their intercultural awareness if only they venture to have friendsfrom other countries and try to learn about different cultures by showing some personal effort. Moreover, teacher candidates said that while some trainers were willing to talk about how to deal with the challenges a multi-cultural class sets after lessons, other trainers avoideddoing so.

Kaya (2014) investigated opinions on the education programme of 64 final year teacher trainees' studying in the Foreign Language Department and Educational Technologies Department of Yıldız Teknik University. Like Karataş (2018), Kaya also found that the candidates did not believe that the programme would enable them to teach in a multi-cultural school environment presented. Polat&Rengi (2014) carried out a study on 286 practising classroom teachers in state schools to find out which issues they classified as an intercultural difference to pose as difficulty in a multi-cultural teaching environment. The findings revealed that the teachers had a high level of intercultural sensitivity. Nonetheless, they were more concernedbecause of their limited foreign language skills.

### Intercultural sensitivity of Turkish Health Personnel

Not all professions particularly need to have high levels of intercultural sensitivity to perform their job. However, people working in the health services are an exception. They care for patients from different cultural backgrounds daily. Unfortunately, not one day passes that we hear news about a person from health services has been attacked physically and verbally by patients or their family members. Communication problems due to lack of intercultural communicative competence regarded the primary limitation by the health service personnel.

Moreover, it has a detrimental impact on the quality of health service (Aksoy &Akkoç (2019); Aktaş*et al.* (2015); Aygün*et al.* (2015)). Employing translators were thought to resolve the problem. As Aygün*et al.* (2015) reported, translators, who were employed just because they could speak Arabic and Turkish, were untrained and unqualified in the field of medical sciences. As a result, unfortunately some of them ended up helping the problem to get worse.

If the personnel were trained so that they canhandle the conflict emerged due to cultural difference, this couldhelp them to resolve conflictsin some situations. The aim is that the benefits of this kind of trainingcan lead to higher patient satisfaction. For this purpose, academics have begun to look at the course programmes used in the nurse education and the influence of the educational context on the nursing students' intercultural sensitivity (Bulduk*et al* 2011, Bulduk*et al.* 2017, Egelioğlu*et al.* 2016, Meydanlıoğlu*et al.* 2015,Uzun&Sevinç2015). Although the literature appears rich in this respect, sadly not much progress has been observed in training multiculturally sensitive health personnel (*cf.*Göl&Erkin 2019).

Various studies reported the factors related to the qualifications of nursing graduates played a more critical role in determining the level of intercultural sensitivity. These are theirfuture foreign language proficiency levels, their communicative skills in the language and their plans, such as travelling abroad and working abroad. According to the findings,Göl&Erkin(2019) reported, previous positive experience of nurses on interacting with foreigners was another critical factor which culminates high level of intercultural sensitivity. Similarly, Bilgiç&Şahin(2019) investigated the relationship between nursing students' intercultural sensitivity and ethnocentric behaviour. They found a negative correlation between these two constructs. That is, that the higher level of sensitivity students have, the lower ethnocentric behavioural tendencies they show. Mainly, students who had friends from other countries had higher sensitivity level and lower ethnocentric tendency. This finding certainly supports Bennet's Model.

Uzun&Sevinç (2015) investigated stress level of working nurses in a small state hospital in the town of Kilis where all services have been strained with an enormous influx of Syrian refugees in a short period. They found a negative correlation between practising nurses' cultural sensitivity and their perceived stress levels. Though it was at a medium level, their cultural sensitivity was influenced by their perceived stress. Nurses reported that they felt more stressed when they could not cope with cultural differences. Moreover, the refugees were reported to have reflected their stress and anxiety on the tired health personnel while both sides struggle due to language problems. Leung *et al.* (2014) pointed out that people with

higher levels of intercultural sensitivity tended to feel less anxious during intercultural interaction.

## Conclusion

The findings of studies reviewed here show that both in teacher education and nurse education, not onecomponent of course programmes address the development of intercultural competence and international sensitivity these professionals. These studies recommended that classroom teacher training programmes and nurse education programmes should be revised to enhance them so that they prepare to deal with the challenges. In a similar vein, Uzun&Sevinç (2015) concluded that health service personnel need to be competent in foreign languages in order to ease the burden of lack of communication. Besides, vocational training programmes should be revised to enable nurses to serve patients from diverse cultural backgrounds. Duringin-service training, some seminars on intercultural sensitivity can be given to the practising teachers and nurses. It was highlighted that training should be given not only to help teachers and nurses but also in order to create a better communication environment in society. After all, the classrooms are a micro-society, and what happens there can be reflected out of the school. Uzun&Sevinç (2015) added that such an intercultural communication course could include watching videos and discussing them, organising excursions to schools where multicultural classroom can be observed, interviews with more experienced teachers and seminars (see also Akçaoğlu&Arsal (2017);Karataş(2018); Uzun&Sevinç (2015)).

New graduate teachersand nurseshave usually appointed to schools in the South-Eastern part of Turkey where many Syrian refugees live. When appointing these young professionals, authorities can take their language skills and cultural background into account. For example, many Syrian teacher candidates study in faculties of education at present. They can be deployed there to help lessen the burden of lack of communication.

It is fortunate that early studies in the field are encouraging that individuals can be trained to become more competent to deals with issues emerging in intercultural settings (Fischer (2011). In Leung et al. (2014) intercultural training is suggested to enable individuals to develop intercultural sensitivity. Fischer (2011) carried out a study on the impact of an 8-session course for university students. The course included seminars on culture and multi-culturalism,role-plays and drama activities. This training can include seminars where trainees are given information about culture, and experiential activities, such as visits to multicultural environments, such as schools as well as museums. The aim is to familiarise participants with different aspects of particular cultures. Fisher (2011) reported that

those students who had gone through the training, become more aware of cultural differences. This kind of effort would contribute to the participants' general intercultural communication competence.

Moreover, Leung *et al.* (2014) advocate a different approach based on context-specific intercultural competencies. They refer to this approach as 'in Situ Intercultural Competence' (p. 511). First of all, intercultural competencies required for a particular situation are identified. This way, employers may seek out candidates showing particular disposition. Then,acourse programme for a specific context is designed for particular outcomes. This approach seems to match with real-life communication wherethe language is used within a 'context of situation' and 'contextual factors' guide people's linguistic and non-linguistic behaviour (Halliday & Hasan 1990, p. 12).

With the right type of education and leadership, some young generations of health and education professionals can reach the levels of *Adoption* and *Integration* in the future. Members of Turkish society need this kind of awareness-raising so that there would be a healthy communication between refugees and Turkish population.

# REFERENCES

Akçaoğlu, M. Ö. &Arsal, Z. (2017) Teacher Candidates' Views Regarding Multicultural Education: A case study on content integration dimension, *European Journal of Multidisciplinary Studies*, 6 (1), 224-232. ISSN 2414-8385 (Online)

Aksoy, N, Akkoç, M. G. (2019). Intercultural sensitivity levels and cultural difference perceptions of physicians and nurses. *FNJN Florence Nightingale Journal of Nursing*, 27(3), https://doi.org/10.26650/FNJN18002

Aktaş, D., Ertuğ, N. &Öztürk, E. (2015) Investigation into intercultural sensitivity among nursing students at a university in Turkey. *The New Education Review*, 40 (2), 48- 57.

Doi: 10.15804/tner2015.40.2.04

Aygün, O., Gökdemir, Ö., Bulut, Ü., Yaprak, S. &Güldal, D. (2019) Evaluation of primary health care services which is provided to refugees within a public center, *Turkish Journal of Family Medicine and Primary Care*, 10 (1), 6-12.  Doi: 10.54551/tjfmpc.199143

Bennett, M. J. (1993) Towardsethnorelativism: A developmental model of interculturalsensitivity. InPaige, M. R. (Ed.) *Education for the InterculturalExperience* (pp. 21-71), Yarmouth: Intercultural Press.

Bilgiç, Ş. &Şahin, İ. (2019) Hemşireliköğrencilerininkültürlerarasıduyarlık ve etnikmerkeziyetcilikdüzeyleri,  *SüleymanDemirelÜniversitesiSağlıkBilimleriDergisi*, 10 (3), 230-236.Doi: 10.22312/sdusbed.502408

Bruner, J. S. (1996) *The Culture of Education*. Harvard University Press.

Bulduk, S., Usta, E. &Dinçer, Y. (2017) Kültürlerarasıduyarlılık ve etkileyenfaktörlerinbelirlenmesi: Bir sağlıkhizmetlerimeslekyüksekokuluörneği, *DüzceÜniversitesiSağlıkBilimleriEnstitüsüDergisi*, 7 (2), 73-77.https://dergipark.org.tr/en/pub/duzcesbed/issue/31475/340507

Bulduk, S. Tosun, H. &Ardıç, E. (2011) Türkçekültürlerarasıduyarlılıkölçeğininhemşireliköğrencilerindeölçümselözellikleri, *Journal of Medical Ethics*, 19 (1), 25-31.

https://toad.halileksi.net/olcek/turkce-kulturlerarasi-duyarlilik-olcegi

EgelioğluCetişli, N., Işık, G., ÖzgüvenÖztornacı, B., Ardahan, E., ÖzgürsoyUran, B. N., Top, E. D. &ÜnalAvdal, E. (2016) Intercultural sensitivity of nursing students according to their empathy level. İzmir KatipÇelebi University Faculty of Health Sciences Journal, 1(1), 27-33.https://dergipark.org.tr/en/pub/fnjn/issue/47935/606381

Ekmekçi, P. E. (2017) Syria refugees, health and migration legislation in Turkey, *Journal of Immigrant Minority Health*, 19, 1434-1441. Doi: 10.1007s10903-016-0405-3

Fischer, R. (2011) Intercultural training effects on cultural essentialism beliefs and cultural intelligence. *International Journal of Intercultural Relations*, 35, 767-775.

Doi: 10.1016/j.ijintrel.2011.08.005

Göl, İ. &Erkin, Ö. (2019) Association between cultural intelligence and cultural sensitivity in nursing students: A cross-sectional descriptive study. *Collegian*, 26,485-491.

https://doi.org/10.1016/j.colegn.2018.12.007

Gumperz, J. (1982) *Language and Social Identity*. Cambridge: Cambridge University Press.

Halliday, M. A. K. & Hasan, R. (1990) *Language, Context, and Text: Aspects of language in a social-semiotic perspective*. Oxford: Oxford University Press.

Hammer, M. R., Bennett, M. J. &Wiseman, R. (2003) Measuringinterculturalsensitivity: The interculturaldevelopmentalinventory. *International Journal of InterculturalRelations*, 27, 4, 421-443.Doi: 10.1016/S0147-1767(03)00032-4

Johnson, J.P., Lenartowicz, T. & Apud, S. (2006) Cross-cultural competence in an international business: toward a definition and a model.*Journal of International Business Studies*, 37, 525-543. 10.1057/palgrave.jibs.8400205

Karataş, K. (2018) *KültürelDeğerlereEğitimA*çısındanSınıf Öğretmenliği LisansProgramınınDeğerlendirilmesi. YayımlanmamışDoktoratezi. DicleÜniversitesiEğitimBilimleriEnstitüsü. Diyarbakır, Türkiye.

Karatepe, Ç. (2012) Learning theories (pp.1-20). In Gürsoy, E. & Arıkan, A. (Eds.) (2012) *Teaching English to YoungLearners: An activity-basedguide for prospectiveteachers*. Ankara: Eğiten Kitap.

Kaya, Y. (2014). Öğretmenadaylarınınçokkültürlüeğitimhakkındakibilgi, farkındalık ve yeterliliklerininbelirlenmesi. *AsyaÖğretimDergisi*, 2(1), 102-115.

https://dergipark.org.tr/en/pub/aji/issue/1538/18861

Kilic, S. P., Besen, D. B., Tokem, Y., Fadıloğlu, Ç. &Karadağ, G. (2013) An analysis of the cultural problems encountered during caregiving by the nurses working in two different regions of Turkey. *International Journal of Nursing Practice*, 20, 310-319.

Doi: 10.1111/ijn.12152

Leung, K., Ang, S. & Tan L. (2014). Intercultural Competence, *Annual Review of Organisational Behaviour*, 1, 489-519. Doi: 10.1146/annurev-org-psych-031413-091229

Meydanıoğlu,A., Arıkan, F., Gözüm, S. (2015) Cultural sensitivity levels of university students receiving education in health disciplines, *Advanced in Health Science Education*, 20, 1195-1204.Doi: 10.1007/s10459-015-9595-z

Polat, S. &Rengi, O. (2014). Sınıf öğretmenlerininkültürelfarklılıkalgıları ve kültürlerarasıduyarlılıkları. *Zeitschriftfür die Welt der Türken Journal of World of Türks*, 6(3), 135-156.

http://www.dieweltdertuerken.org/index.php/ZfWT/article/viewArticle/639

Uzun, Ö. &Sevinç, S. (2015) The relationship between cultural sensitivity and perceived stress among nurses working with foreign patients. *Journal of Clinical Nursing*, 24 (23-24), 3400-3408.  Doi: 10.1111/jocn.12982

Yıldırım, A. C., Komşuoğlu, A. &Özekmekçi, İ. (2019) The transformation of the primary health care system for Syrian refugees in Turkey. *Asian and Pacific Migration Journal*, 28 (1), 75-96. Doi: 10.1177/0117196819832721

# CORPORATE COMMUNICATION IN BUSINESS

## CHAPTER 4

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# INTRODUCTION

Today's world is going through a period of extremely rapid change and development. Economic and technological developments in particular, have certain impacts on organizations with global operations. The survival of organizations to ensure their adaptation to ongoing developments is crucial to gain leverage within a tough competitive environment. This is due to the fact that while the primary objective of all organizations is to generate profit, they need to continue their existence in the first place to achieve this objective.

The human factor is the primary factor among many others within organizations. This is the reason why corporate communication is essential for businesses. Communication is considered to be the main factor in the survival of today's businesses. Apart from internal communication, communication between the customers and the employees should also be healthy in business organizations, as businesses depend on customer loyalty and engagement to continue their standing.

Today, communication is the pivotal asset of businesses and is a major resource required for their survival. The resources of humans constitutes major capital for the organizational communication process. Therefore, a lack of communication seems unlikely in a human community. In consideration of this, organizations should adopt an efficient communication approach and have a successful corporate communication ability in order to continue their existence and gain a competitive advantage.

High solidarity and coordination among organizational elements, harmony, and the establishment and maintenance of good relations among the employees lead to communication. The organizational harmony, efficiency and interaction to be achieved thanks to communication, both improves organizational efficiency and builds a robust connection among the elements of production or service delivery process. Building such connection requires setting up an organizational communication platform (Tutar and Yılmaz, 2003: 15).

In this context, this section intends to elaborate firstly on the concepts of communication and corporate communication. It refers to the purpose, tools and types of corporate communication and mentions the topics of communication in virtual organizations and communication in businesses during crisis periods. This topic is considered to contribute to the internal and external relationship pattern of companies that become a part of social structure by means of their organizational characteristics.

# 1. THE CONCEPTS OF COMMUNICATION AND CORPORATE COMMUNICATION

The changes experienced today in several areas as a result of technological developments, led to form the communication concept which is and will continue to be frequently cited in the literature. Communication refers to the conveyance and delivery of emotions, opinions, information or news to others by any means. It is not appropriate to limit this concept of such broad meanings to only its lexical meaning. This is due to the fact that communication deals with overall activities and relations of people with different characters that come to existence, as a result of ever increasing population.

The communication concept is used to refer to the exchange of information among individuals and in the simplest terms, it refers to a quotation of meanings through various symbols. The word communication comes from a Latin word "communicare" as a verb which means rendering meanings common among individuals. Similarly, the etymon of the word "communication" is "commun", which have the meanings of making something collective or common and in its best terms, it refers to "using something or information collectively" (Karatepe, 2005: 47).

Communication is transmission of emotions, opinions and information from an originator to a receiver through different media. The shortest definition of communication is the transmission of messages. Communication, as an act of message transmission, originates from people's need for self-expression. The following statements have been said about communication, in accordance with these definitions: Communication is a system that forms the foundation of society, an instrument that ensures order in an organizational structure, a technique of monitoring individual behaviors and an essential art for social cohesion (Sabuncuoğlu, 1982: 160).

Each individual perceives and interprets communication in a different way. The personal beliefs and values of an individual have an impact on receiving, interpreting or sending a message (Hall, 1977: 266). The success of individuals in their social relationships rely on their communication skills. These skills enable them to think abstractly and to maintain a more civilized life (Schneider, 1975: 3).

Communication falls under the domain of several disciplines. This feature renders it difficult to make only one definition for communication. The following are some definitions of communication which have many similar definitions:

Communication, at large, involves a process which individuals conduct to exchange information. Researchers, who attempt to explain the concept of communication in terms of information, have described it in several ways. Communication is the way of disclosing, explaining and interpreting information (Dökmen, 1998: 19). Communication arises from a need and refers to conveyance of meanings from one person to another (Tutar, Yılmaz and Erdönmez, 2003:7). In an alternative definition, communication refers to transmission of information, opinions and skills among individuals using various means (Mutlu, 1994: 98). The main purpose of communication is to be able to deliver the intended emotion and opinion to the target person in the intended manner and to obtain in return what is desired and provoke an expected reaction (Usluata, 1995: 15). In consideration of these definitions, the primary objective of communication is the efforts of the originator and the receiver to understand each other. If two people do not have the objective and capability to share a meaning, then it is not possible to talk about a communication process.

The shortest definition of communication is the transfer of information. Communication, which is defined as an "exchange of information and conveyance of meanings", is a major tool of guidance and coordination for the functioning of organizations. Organizations are social units that are established deliberately to achieve pre-specified objectives and which operate in a certain order (Tutar and Yılmaz, 2003: 22).

Corporate communication is a way of communication that is directed internally and externally, in order to influence or change the attitudes of society and the employees towards the organization. Corporate communication is a collective process that facilitates the continuous exchange of information and opinions among units, elements and environments of a business, and establishment of required relations among its units, in order to ensure functioning of the business and to help it achieve its targets (Sabuncuoğlu, 2012: 153).

Businesses cannot carry out their operations without communication. Therefore, the coordination of employees depends on communication. When the employees of an organization are not aware of each other's needs, their cooperation is not possible and any act of communication poses as an adverse impact on businesses. Communication helps in achieving main management functions such as planning, organization and control. Businesses can accomplish their functions in this way (Tutar, and Yılmaz, 2003:116). Organizational communication is the exchange of messages by an organization, internally and externally (Qlueck,1980:564). In another definition, corporate communication is the formal communication method of an organization, internally and externally.

Organizations are systems of cooperation. They are formed to gather means and coordinate them in line with an objective. Cooperation, irrespective of the level, may only be achieved through communication. Corporate communication is intended to accomplish specific objectives. The objectives of corporate communication may be listed as follows (Gürgen, 1997: 37):

- To communicate and explain corporate policies and decisions to employees, and to inform them about working order, remuneration system, reward and penalty system, promotional opportunities, social benefits, etc.;

- To announce annual budgets and revenues, as well as activities of organizations to employees and relevant parties;

- To make presentation and notification about innovative management approaches and employees of organizations and the union;

- To introduce the units and managers of the organization through corporate media and to share corporate information regarding the members of the organization;

- To inform organizational members about regulations with respect to its field of activity,to take preventive measures against any possible mistakes in that respect.

## 2. MEANS OF CORPORATE COMMUNICATION USED IN BUSINESSES

The way and the means to be used to conduct corporate relationships is as important as the regularity and intentionality of such relationships. Points to take into consideration when choosing the means of communication to be used in businesses include their capacity to facilitate information transfer and to transmit a message without changing its format and essence and in a clear and swift manner. Businesses require a communication system setup in order to determine and achieve corporate objectives. Businesses may use a variety of means of communication due to the fact that the means of communication facilitate the smoothness and non-stationary condition of a communication system (Tutar and Yılmaz, 2003: 120). In this respect, means of corporate communication used in businesses can be categorized as written, verbal and audio-visual.

## 2.1. Means of Written Communication

Means of written communication refer to the instruments used for transmitting a message in a written form. The means of written communication may include organizational charts and guides, activity reports, brochures, written business agreements, business letters, etc.

- **Organizational Charts and Guides** are the means used to activate an organization and to indicate the powers and responsibilities of people working in an organization.

- **Activity Reports** are the means of written communication used to inform the members of an organization and other parties, when required, about its activities and way of functioning. These may include Annual Activity Reports, Income Statements, Balance Sheets, Financial Statements and results.

- **Brochures** are issued and delivered by organizations when they need to promote their products and services to prospective consumers.

- **Written Business Agreements** refer to the agreements drawn up by organizations with their members and other entities or public institutions. These may be subcategorized as contracts, deeds and protocols.

- **Business Letters** include written documents issued by organizations for their correspondence with other entities and their members.

When a message is intended to be lasting, the means of written communication are used to ensure its transmission without losing the validity and accuracy of the information to be transferred through a few steps. Means of written communication include written reports, business journals, brochures, manuals, banners and bulletins (Tutar and Yılmaz, 2003: 120).

Means of written communication are frequently used in businesses. The purpose of using this type of communication frequently is to retain documentary evidence. Unwritten messages usually may be forgotten but written notes may always be retained. They may be readdressed and reviewed when required. On the other hand, written communication takes some time and may not be interpreted by everyone in the same way. Instruments such as letters, announcements, leaflets, brochures, introductory booklets of businesses, payment receipts, short memos used among the staff members of departments, internal and external publications of businesses, bulletin boards, suggestion and complaint boxes, reports, etc. are used to have written communication (Ertürk, 2000: 121-122).

Means of written communication are the communication tools that are usually employed when verbal communication is not applicable or for the purpose of avoiding the handicaps caused by unreliability of verbal communication means. Whereas written communication has the advantage of durability and endurance, it has disadvantages such as being a time-consuming and costly way of communication (Tutar and Yılmaz, 2003: 120).

### 2.2. Means of Verbal Communication

Means of verbal communication allow the verbal transmission of a message. Conferences, oral presentations, phone calls, verbal notices and announcements, etc. also constitute ways of verbal communication. What is noteworthy about non-verbal communication is that people may pay utmost attention to what they say but they tend to be less careful about their gestures (Çıkmaz, 2013).

A good observer has no difficulty in understanding if the other party lies or not, and if they expresses their genuine feelings. The observer also needs to be familiar with the content and context of the verbal expression made by the originator of the message, in order to make such conclusion. Therefore, verbal expressions generally convey the maximum information a person may provide (Özgüven, 1992: 101).

Most managers inevitably prefer to use the verbal communication method when carrying out daily operations. Verbal communication refers to the type of communication where people talk face to face to communicate. Verbal communication is a very effective method. In businesses, the managers may choose to talk either face to face, or on the phone, for verbal communication. However, in such cases, they should be attentive to their choice of words and in using their tone of voice in an expressive way. While verbal communication has strengths such as being swift and adaptable to the current mental state of a person, it has some weaknesses such as being easily forgettable, lacking documentary evidence quality, etc. (Ertürk, 2000: 123).

### 2.3. Means of Audio-Visual Communication

Especially thanks to recent technological advancements, businesses started to also use the means of audio-visual communication in a widespread manner, as a supplementary and ancillary, or as a complete replacement to the means of written and verbal communication.

The means of audio-visual communication include sound and image productions, and computer mediated communication used in the fields of

communication and education. This constitutes communication through audio-visual techniques (Özgüven, 1992: 101-102).

Businesses should ensure the quality maintenance of communication between their staff members and their customers and in this context, they should actively benefit from communication with customers in order to carry out service marketing in a competitive environment. Therefore, it is essential for the managers of businesses to implement activities for improving the communication skills of their staff members (Çıkmaz, 2013: 60).

## 3.TYPES OF INTERNAL COMMUNICATION IN BUSINESSES

Internal communication of businesses may be analyzed in two categories, which include formal communication and informal communication.

### 3.1. Formal Communication

Securing a constant balance in an organization requires the arrangement of collective efforts. This suggests being oriented towards common objectives in order to ensure an efficient cooperative system. Accordingly, the collective efforts vs common objectives dilemma, which is mainly influenced by both the organization and its management, is the major factor that leads the organization and its management to success. This necessitates the establishment of an appropriate relationships system, both vertically and horizontally, in order to achieve common objectives. Proper coordination of the aforementioned relationships depends on the proper functioning of communication channels (Sabuncuoğlu, 1998: 29).

Formal communication relates to the formal structure of an organization and is a way of communication which follows a hierarchical line of authority and is intended to deliver certain messages to the relevant parties pursuant to predefined official rules. Communication flows in three directions in organizations. These are vertical, horizontal and diagonal flow directions. Vertical communication refers to the downward and upward communication of personnel. Communication flows downward in organizations under normal circumstances. This is usually based on written communication. Horizontal communication in organizations, on the other hand, is established among people with the same or similar status. The communication between different levels of organizational hierarchy is called diagonal communication (Tutar, 2003: 126).

### 3.1.1. Vertical communication

The vertical dimension of communication in management refers to the dimension of superior-subordinate communication. The direction of vertical communication is both downwards and upwards (Davis, 1998, 508).

Superior-subordinate communication refers to the communication between managers and their subordinates. Superior-subordinate communication is established in both downwards and upwards direction, within the context of professional communication. Downward communication is originated by the superiors and goes down until most lower ranked employees. The main purpose of downward communication is to provide professional knowledge to subordinates, and to lead them in accordance with such knowledge. The primary purpose of upward communication on the other hand is to inform the superiors about lower ranked personnel. This type of communication involves development reports, proposals, statements and various information required for decision-making. The superiors communicate their decisions and orders downward in relation to several matters, in line with the specified objectives and the employees communicate upward the results of the orders and instructions given to them, their wishes and requests and their complaints and suggestions (Tutar and Yılmaz, 2008: 146).

It is indicated that superior-subordinate communication has five general purposes within professional communication. These purposes may be listed as follows (Katz and Kahn, 1978:440):

- To give instructions on professional training;

- To inform of procedures and practices of the relevant organization;

- To provide insight about business requirements;

- To give feedback about the performance of employees;

- To give information that enables employees to understand the objectives.

### 3.1.2. Horizontal communication

Department managers and employees within the same level of professional organizations use horizontal channels for communication without referring to a senior level which they report to in common. Horizontal communication channels substantially contribute towards managers with similar positions, to develop and enhance their mutual relationships immediately for cooperative purposes. Employees communicate among each

other even in organizations with authoritarian management structure, especially when superior-subordinate communication fails to sufficiently satisfy the understanding of orders and instructions. Henri Fayol, a supporter of the Hierarchical Management Model, indicates that communication conflicts and problems arise in a professional organization which is only based on hierarchical interactions, and communication among employees may contribute to resolution of such conflicts (Tutar and Yılmaz, 2009: 175).

Communication among employees at the same level in professional organizations is called employee-to-employee communication, i.e., horizontal communication. The horizontal flow of information facilitates information sharing of employees and coordination of duties. It helps to establish a social bond among employees. It serves as an efficient way of preventing resignations/dismissals and negative behaviors. Employees feel more secure about a message when they receive it from their peers rather than senior management (Wilson, 1992: 130).

The main purpose of employee-to-employee communication is to serve as a channel for coordination and problem solving in professional organizations as it enables a clearer and efficient communication by way of taking professional communication beyond specific procedures (Kaplan, 1984: 38-40).

### 3.1.3. Diagonal communication

Diagonal communication refers to a type of communication established between subordinates and superiors working in different functional units. It is observed that diagonal communication is not available in most organizations. However, diagonal communication promotes organizational specialization and a better understanding by different units of their responsibilities towards each other, and facilitates their cooperation (Tutar and Yılmaz, 2003:131).

Diagonal communication refers to the communication among chains of command. For example, a study concerning a group of managers concludes that two third of their communication involves horizontal or diagonal communication. Only one third of their communication consists of vertical communication within their own chain of command. Several studies on communication networks of organizations prove that information on general subjects may be communicated diagonally among production, sales, management and human relations departments, as well as internally within themselves. A chain of command communication tends to prevail only when required and sometimes it is of secondary importance even when it is necessary (Caplow, 1976: 77).

## 3.2. Informal Communication

Several concerns and needs of employees lead to informal communication in organizations. Informal communication refers to a type of communication established in natural organizations (James, 1979: 114). When formal communication fails to be applied efficiently or sufficiently, natural communication emerges and develops quickly. Informal communication is an unregulated communication without any predetermined formal methods but it is also a type of communication that may involve rumors, gossips and intentional news. This type of communication develops naturally in an organization.

When downward, upward and horizontal communication channels fail to satisfy the communication needs of employees, then informal communication channels emerge in addition to the aforementioned channels to fill the gap of formal communication channels (Caplow, 1976: 77).

## 4. COMMUNICATION IN VIRTUAL ORGANIZATIONS

Virtual organizations are the organizations which are based on information technologies and have a strong communication infrastructure to carry out virtual work. Virtual organizations enhance their coordination and communication functions at a large scale and improve organizational efficiency through information technologies. In today's context, organizational change results from the advancements of communication technologies (Rockart, 1998: 35).

Communication in virtual organizations is based on instruments such as shared databases, emails and intranet, computer conferencing, software, groupware that enables communication and information sharing among co-workers and computer supported cooperative work systems. For virtual organizations to benefit from information technologies effectively, such technologies should be coordinated in a way to ensure accomplishing the following objectives (Tutar and Yılmaz,2003: 140):

- All requisite information for an organization should be processed in an electronically deliverable format;

- Information should be available and accessible at different times and locations;

- Electronic communication infrastructure should be organized to overcome communication and coordination handicaps.

Communication in virtual organizations is important particularly in two aspects. The first aspect is to furnish employees with the information need-

ed to carry out their work and to share information, and the second one is to create values that promote coordination, performance and job satisfaction. People choose their own work locations in virtual working arrangements. Choosing a place of work becomes as colorful as choosing a vacation spot. A fax, a notebook computer with a modem card and a mobile phone linked to this computer may be sufficient to perform work from anywhere. Today, virtual working has become an actual state with its positive and negative aspects. Most probably it will become increasingly widespread, in line with the developments in information technologies in the near future (Fleet, 1988: 379).

Today, internet use is a routine action of a typical employee. Internet has become an inevitable means of communication in terms of internal communication of businesses, both thanks to its speed and wide range. When considering the technologies and applications used to communicate through the internet, email is suggested to be the most common and effective way without question. As a matter of fact, it is remarkable that two thirds of the total labor force in the US and 5% of the working population in several European and Asia Pacific countries use email (Bengshir, 2000: 2).

Today's organizations usually communicate (for internal bulletins and newsletters) with their employees through e-mail. Additionally, email has also become an essential tool of communication for an organization to communicate with its external environment (such as customers, shareholders, competitors, unions, suppliers, public institutions, etc.), apart from its internal communication. Therefore, use of email has enabled businesses to save in terms of documentation. Email increases the speed of communication, enables saving in terms of its effect to prevent paper use and becomes prominent as an efficient way of communication by reducing the errors compared to communication through phone. The use of emails is also acknowledged to help an organization establish a compelling marketing network intended for its customers. Email is used as a major tool as part of modern marketing concept. Electronic mail is considered as an ideal tool for increasing the performance of employees in many businesses. Numerous advantages can be mentioned regarding the use of email in organizations. The most important advantages include its speed, cost saving advantage, and an increase in the efficiency of an organization and performance of an individual (Hamilton, 2004).

## 5. COMMUNICATION IN BUSINESS DURING CRISIS PERIODS

Stress and tension levels of people increase during crisis periods. During such periods, factors such as the tone, stress and color of the voice

should be paid a particular care. During crisis periods in businesses, a "crisis spokesperson" should be appointed for communication of the organization with the public. The crisis spokesperson assumes great responsibility during such periods. The crisis spokesperson should inform the public and respond to the objections as far as possible. When doing these, misstatements should be avoided (Meyers and Halusha, 1986).

Regardless of the period and environment, one of the most important elements of being organized and ensuring recovery is the ability to have an extensive and efficient communication. Efficient communication is a matter of time management. The formation of a press center may be helpful to ensure efficient communication during a crisis. The press center should be close to the emergency control center or "war room" for facilitating information flow from elsewhere. A "crisis committee" should be established for execution of organizational activities during crisis periods. The committee is responsible for the management of crisis and public relations. Overcoming a crisis requires crisis management, and crisis management requires expertise on crisis management and adapting this expertise into a communication processes. The use of electronic mass media also helps substantially to efficient communication during crisis periods. It is inevitable to hold meetings with employees during crisis periods. (Olson,1999: 97).

Communication has an important role during possible crisis periods in businesses. Businesses may address the target audience both internally and externally easier, thanks to proper and smooth communication at the time of a crisis. Accordingly, efficient communication under such circumstances allows the use all available skills and capabilities to their fullest extent (Roebuck, 2008: 9). Internal and external efficient communication during crisis periods depends on the capabilities of the originator and the receiver. At this point, communication of information and messages, that should be comprehended during crisis situations, by the originator in a proper and clear way highlights the importance of comprehension and evaluation (Tutar, 2009: 187-188).

## 6. CONCLUSION

Today, the rapid advancement of science and technology and globalization has eliminated international borders and consequently, the competitive environment has become tougher. This led to increasing the efficiency and importance of corporate communication. The field of organizational communication attracts the attention of communication professionals as a field of activity beyond the paradigm of productivity and efficiency, with an increasing contribution from both organizational sociology and communication fields, and it continues to develop.

Organizational communication facilitates regular exchange of information and opinions both among several units and elements of an organization and also between the organization and its periphery or establishment of interdepartmental relationships, in order to maintain the operations of the organization and to achieve its objectives (Green, 1996:101).

This section includes general information on concepts of corporate communication in businesses. It describes the objectives, means and types of corporate communication used in businesses. In addition, it mentions communication in virtual organizations and communication in businesses during crisis periods. From this point of view, effective management of a crisis relies on an efficient communication to a great extent. Communication activities are usually observed to serve a double function in a crisis such as assisting the management of crisis while protecting business reputation.

# REFERENCES

Bengshir, Türksel Kaya.(2000). Devlet-Vatandaş *İletişiminde* E-posta, inet-tr 2000 Türkiye'de İnternet Konferansı.

Caplow, T. (1976). How To Run Organizatıon, Holt, Rinehart and Wınston, N.Y.

Chapeaux, J.E (1996) Organizational Behaviour; West Publishing Company,New York.

Çıkmaz, E.(2013).Otel İşletmelerinde Çalışan Personelin Sahip Olduğu İletişim Becerisinin Yükseköğretim Mezunu Müşteriler Tarafından Değerlendirilmesine Yönelik Gaziantep'te Bir Uygulama,  Yayımlanmamış Yüksek Lisans Tezi, Hasan Kalyoncu Üniversitesi,Sosyal Bilimler Enstitüsü,Gaziantep

Davis, W (1998). Management Informatıon and Systems, West Publishing Company.

Dökmen, Ü. (1998). Sanatta ve Günlük Yaşamda İletişim Çatışmaları ve Empati, Sistem yayıncılık İstanbul.

Ertürk, M. (2000). İşletme Biliminin Temel İlkeleri, Beta Yayıncılık, İstanbul,

Fleet, D,V. (1988). Contemporary Management, Houghton Mifflin Company, Boston.

Gürgen, H. (1997). Örgütlerde İletişim Kalitesi, Der Yayınları,İstanbul.

Hamilton, P.(2004). "E-Mail Monitoring-What Can an Employer Do?" , Labor&Employment Law Update, February.

Kaplan, R. (1984). "Trade Routes: The Manager's Network of Relationships", Organizational Dynamics 12,No:4

Karatepe, S (2005). Örgütlerde İletişim-Güdüleme İlişkisi, Siyasal Kitabevi, Ankara.

Katz, D.and R. Kahn. (1978). The Social Phychology of Organizatıons, 2d ed, Wiley, Newyork.

Meyers, G. and Halusha (1986 akt.). When It Hıts The Fan: Managing The Nine Crisess of Business, Boston.

Mutlu, E. (1994) İletişim Sözlüğü, Ark yayınevi Ankara.

Olson, J. (1999). Organize Olma, Hayat Yayınları, Çev Yarmalı, S. İstanbul.

Qlueck, W.(1980). Management, The Dryden Press, Hinsdak,İllinois.

Özgüven, B. M. (1992). *Toplum Bilimlerine Giri*s, 2.Baskı, Ata Ofset Matbaacılık,

**Özgüven** İ.E. (2001). Ailede İletişim ve Yaşam, PDREM Yayınları, Ankara, 2001

Rockart, J. (1998). Towards Survivability of Communıcatıon, Journal of Management Studıes.

Sabuncuoğlu, Z. (1982). Endüstriyel Davranışlar, İ.T.İ.A. İşletme Fakültesi Yayını, Bursa.

Sabuncuoğlu, Z, Tüz, M .(1998) Örgütsel İletişim 2. baskı Furkan Ofset Bursa

Sabuncuoğlu, Z.(2012). İşletmelerde Halkla İlişkiler, Ezgi Kitabevi Yay. Bursa.

Schneider,H(1975) Organizational Communication,International Student Edition, McGraw-Hill Kogakusha, Ltd.

Tutar, H. (2009) Seçkin Yayıncılık 2. baskı. Örgütsel İletişim.

Tutar, H., Yılmaz, K. (2003) Genel ve Teknik İletişim Nobel Yayını Ankara

Tutar, H Yılmaz, K. (2008) Genel İletişim Kavramlar ve Modeller, Seçkin Yayıncılık,6. Baskı, Ankara.

Tutar, H. Yılmaz, K. Erdönmez, C. (2003) Genel ve Teknik İletişim Nobel Yayın Dağıtım Ankara.

Usluata, A. (1995). **İletişim**, **İletişim** Yayınları, 1995, s.11.

Yıldız, Y.(2006). **Örgüt** Kültürü Oluşumunda **Örgütsel İletişimin** Rolü, Yayımlanmış Yüksek Lisans Tezi, Gaziantep.

# A STUDY ON NEW MEDIA TECHNOLOGIES AND DIGITAL WORSHIP

CHAPTER

5

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## INTRODUCTION

Science and technology are changing living conditions and forms of worship. We are so accustomed to developments that new digital religion or digital worship term do not suprise us. However we can not stop thinking and following to the developments about technology and embrace them with great enthusiasm. In modern times, changes and transformations include paradigms that are sometimes unpredictable. Many of the discoveries of the early ages developed in the shadow of Einstein's relativity, Heisenberg's uncertainty over the human mind and N. Bohr's atomic model. We are now approaching different to the World, life and worship issues thanks to current thinking models of modern mind. Different approaches do not only change the way we look at events but also contain some paradox and these are paradox of modern times.

Modern times paradox include changing forms of worship. The phenomenon of digital religion has developed considerably since its first appearance. Digital technology's rapid development has led to empirical culture studies of digital religions. The effect of media research and critical theories have made it inevitable to observe religion and digital technologies. Reflections of digital worship showed itself in religious life and culture which led to the diversification of cultural relations. There are some questions to be asked and examined like digital technologies how to shape religious processes or how to contribute to our experience of being a better person. Theology is the key to all answers.

The dialogue between science and religion has a well-established history. In addition to those who believe in deep-rooted religions such as Christianity, Judaism and Islam, the advocates of such teachings as Hinduism, Buddhism, Taoism and Confucianism are also aware of the versatility of dialogue between religion and science. Awareness leads researchers and theologians of different religions to put themselves under certain responsibilities. Especially during the period when digital instruments became widespread and digital worship made itself more felt, researchers concentrated on digital worship areas. The examination of old traditions with new ways of behaving forms the basic framework of the said concentration. The digital world and virtual reality promise people unlimited freedom and a high level of engagement. The diversity of promises and the impact of digital technologies on religious thought have attracted many participants these days. Religious interactions through the products of new media technologies increase the number of sharing and participants every day. The technologies of Modern times allow the perception of worship to change and gain greater mobility.

Scientists who are focused on studying the effects of digital technologies on thought and religious practices are coming together for a common

paye, albeit from different disciplines. This is the role of technology in theology. The term religion is very broad, including symbols, rituals, spiritual practices, metaphysical beliefs, doctorates, and various political orientations. Theology, on the other hand, aims to emphasize rational thought within a particular religious tradition. The essence of the word theology means "reasoning about God" (Peters, 2016, s. 15). In Modern times, researchers who focus on the phenomenon of religion often try to explain the truth within the framework of a critical question.

This study includes an analysis of how people have changed their spiritual life and worship patterns through digital technology. How do worship change through new media, what kind of roles these technologies undertake are examined in this study. Now, religious believers, various communities and institutions consider digital technology as a different tool. Digital religions help individuals to create their own identity and lead to the ability to express themselves. The first step in resolving the issue is through an examination of the relationship between new media, digital culture and belief.

## Contradictions of Modern Time

In the shadow of Human Computer Interaction and changing forms of communication, New Media Technologies have increased the sphere of influence. For this reason, researchers from different fields of communication, philosophy and more have turned their attention to digital communication forms. These days, questions about religious practices are manifesting themselves in digital spaces. The combination of different theories and methodologies raises different questions: How do religious practices manifest themselves in the digital environment? How are religious fanatics transformed through new media? Does digitization help the birth of new presence perception online? What are the social and cultural effects of digital worship? How do religious institutions and cultures respond to this differentiation? Are religious authorities experiencing any weakness due to online worship, or are they taking advantage of technology? Within the framework of these and similar questions, the subject of digital worship deserves to be examined in more detail.

Efforts to explain life in modern times manifest themselves in a dilemma that often takes place between material and spirituality. The most critical point of the dilemma is that the determinism in spirituality is not based on a substance. Major religions often repeat that we will live in a non-material world. This topic has been frequently discussed for centuries, but much of the research has failed to reach a definitive consensus. Numerous works about technology have been published over the years. Scientists are trying to eliminate a perception limited to the realm of nature to reveal

reality. The main problem in the age of Informatics is the discernability of an objective form of divine action, whose intervention in the physical world is not entirely clear. Thomas Torrance, a man who devoted his life to theology of science, says: "Science theology is only a humanitarian effort to investigate the truth because we are trying to capture God as much as we can, to understand what we have discovered, and to speak openly and cautiously about what we understand" (Torrance, 1969: 281-282).

The occurrence of certain cultural changes in the information age has affected the phenomenon of religion. However, the religion's quests and the duties of forming attitudes are still valid. Human nature always seeks truth. The path of the individual crosses religion and technology. The discourses of religions to explain the existence of man are enriched through technology. The mentioned state of enrichment has not only affected the developmental stages of how we view human life, but has also captured these stages. The question of how religion and technology influences or leads to human existence has changed the one-dimensional perspective. Giving a supreme meaning to technology has become widespread by preventing situations that were previously described as destiny. For example, early detection of certain health problems was not possible when technology and medicine were not modern. It is now possible to solve problems such as early diagnosis of the child in the womb, or problems of individuals who have problems with fertility through technology. These circumstances caused him to be given a lofty meaning. This has caused a bit of a breakdown in the understanding of God's will or "Destiny". The real question here is how far the technology can go.

Although the contribution of technology towards religious beliefs is much, it has entered into the struggle with religion. For example, some views were once available that the Earth was created in the time frame of about 6,000 to 10,000 years ago. Hypotheses based on religious beliefs were abandoned as a result of later excavations, fossil remains and carbon materials (Feist, Shukla, & Beauvais, 2010: 197). Therefore, developing modern technologies have shown us that religious beliefs, which were previously regarded as true, are lacking in human existence. Today, people share some verses with new media technologies, refer to some hadiths, and believe that they have completed their religious obligations in a traditional way. The important point here is digital worship. The advocates of digital worship believe that the virtual world will increase its influence in the future and they will replace traditional religious worship. Digital worship, which continues the field of expansion, resembles the Protestant Reformation. The premise of Martin Luther led to an increase in the effects of printing tools later on. Likewise, new media technologies are key to digital worship.

Looking at the developments, it is clear that different virtual religions and communities will emerge in the digital age. Digital worship centers will not be physical structures formed by a brick and mortar. New Media Technologies also represent people who do not have membership in a religious organization or who do not physically go to places of worship. With the rise of smartphones and social media apps, religious issues are being discussed in virtual space. Nowadays it is very difficult to escape from technological tools and this triggers, influences and changes people's behavior. Interaction allows people to communicate their thoughts, while digital apps target people's forms of worship. Because it is now easier to worship with online technologies, and these technologies are reshaping even religious people and making them gain new behaviors.

### Theology and New Media Technologies

In the light of the computer and communication technologies, many fields are changing and one of them is the phenomenon of theology. Theology increases the interaction with new media technologies. And theology reinterprets the old prophecies under a technology umbrella and tries to approach the subject in the philosophy of science. Before mentioning the theology of modern times, it is important to explain the concept of theology. The term theology originated from the combination of the words "Theos" (God) and "logos" (Logic) in the ancient Greek language. Theology refers to the work of thinking or learning on the words of God (Campbell & Garner, 2016: 9-10). When we look at the word roots of the concept, it is seen that the emphasis is placed on "logos" as in the concept of technology. But what we need to talk about here is digital worship. The term refers to a field of study that focuses on analyses of theological thought about the emergence, development and future of technology.

With the help of science, technology theology is changing. Researchers of the modern age try to interpret religious traditions based on reductionist thinking. However, because of each geography contains different cultures makes it difficult to reach a common conclusion. But scientific studies are determined to overcome these challenges. Thanks to technology, we have various ideas about religion. The following question come to mind: What would our lives be like without any technology? It can be seen through technology that science and logic make a revolutionary development of ideas. The forms of thought led by technology revolve around life, emotions, nature and communication.

For some people, technologies that are just machines lack the nature of morality, the human way of thinking. Technique and science are used by human hands as good or bad. Because it is clear that the negative situations caused by

technological tools are not on their own. But sometimes it can be stated that technology is out of control. Another problem is hidden within technological mysticism. The state of mysticism, which manifests itself in many religious doctrines, has targeted the personality structure of modern man. Do we find all the glory of our spiritual imagination in the reality we live in? Or can we reach this imagination without resorting to the material world? Similar thoughts turn into a ball of questions that contains a variety of mysteries.

The scientific worldview always needs to be questioned and expanded. And that sometimes happens with metaphysics because it is clear that without metaphysics there is no progress that has full-blown consequences. Theologian Arthur Peacocke emphasized the importance of reconsidering religious issues from different perspectives. And he also noted the emphasis on metaphysics and mysticism: "The special revelation of God has an effect on the divine mystery. The mystery is by no means stuck to theology and not in limited form. The mystery in the existence of twentieth-century science needs to be evaluated in a new dimension. States like uncertainty and fluctuation in quantum physics increase our knowledge of certain things. But it requires us to think clearly first. Thoughts on the basis of physical reality were once more difficult. However, reflections on the question of modernism and the mystery of existence are facilitated by natural sciences"(Peacocke, 1993: 141). Therefore, the century we live in contains a period in which theology and technology are intertwined.

### Digital Worship

We have often witnessed the conflict between science and religion in the past, but today there is a period of peace. The phenomenon of science and religion is not only living peacefully, but also seeking answers to modern-day questions with an understanding away from dogmatic thoughts. It is very difficult to evaluate a subject in our time without a scientific and technological framework, even worship is carried out digitally. Thanks to the advances in communication technologies over the last decade, we can explain the question of what is digital worship. Conceptually, when we look at the subject of digital worship, it is seen that the internet platform comes to the fore. Since the 1990s, the internet, which made itself felt in society, has enabled the birth of many formations. One of them is the phenomenon of "cyber-religion" seen in the late 1990s. The transformation of virtual communities into virtual societies has led to the emergence of new movements of worship. The desire to maintain worship in a digital environment arises from this. Nowadays, the development of virtual reality technologies has helped to create artificial worlds similar to the reality.

The emergence of digital worship actually originated in the Western countries pioneered by the Christian world. The concept of the "Cyber-church" was first discussed in the book "Cyberchurch" by futurist Patrick Dixon in 1997. Dixon emphasized that new cyber communities will emerge that can grow in a very short time thanks to web-based technologies. He also stated that traditional worship structures will change through video technologies, communication systems and community forums and this situation will spread as a global wave (Dixon, 1997: 181). Tim Bednar, in his article "We Know more than our Pastors", brought a different perspective to the subject. And in his work exploring the impact of the blogging movement on faith experiences. Also, he has made a depiction of modern cyber churches (Bednar, 2007).

Digital worship was originally defined as a metaphorical framing and in a way that religious practices did not include traditional constraints. Cyber religion was used by some to suggest new kinds of religious communities. In digital worship, there was a structure in which people carried their spiritual lives to cyberspace (Campbell, 2013: 13-14). Morten T. Højsgaard and Margit Warburg say that cyber religions have a meaning beyond the reflection of thought as a concept: "There is strict opposition to traditionally structured institutions, where content reflects the main characteristics of postmodern cyberculture. And digital religions, which are also a phenomenon, are changing the traditional structure of pursuits for ontological and metaphysical questions. Because religious institutions are being replaced by new environment" (Højsgaard & Warburg, 2005: 62).

Digital worship includes the processes of a religious group to carry out their religious activities through the internet. Digital worship, which is intended to facilitate worship services, comes across in a wide variety of forms. The virtual environment has become a reference point for theological questions. Today, the phenomenon of digital worship is changing the traditional structure of many places of worship. Physical forms of worship or meetings are now held in a virtual environment. Thanks to the multimedia offered for the virtual environment, worship has become richer. And it has ceased to be an alternative and has begun to become a main element. Digital worship relates to new cultural values and technological contexts. It also includes the process of transferring and questioning traditional religious assumptions to the virtual environment.

Advocates of digital worship, who have embraced new media technologies, do not completely ignore traditional religious beliefs. Instead they have gone down the path of learning the techniques online. Although there are many digital worship communities available online, there are few known communities. Religious services are provided with the help of in-

ternet technology. For example, many churches in the United States have their own internet church campus and have numerous members. And these churches are distinguished from traditional churches in terms of physical environment. When we look at the researches on digital worship, it is seen that the places of worship in the UK are integrated with digital technologies. Most of the 16,000 churches in the country have wireless internet access (Campbell & Garner, 2016: 2). And efforts are being made to expand and develop religious services with digital generations.

### Digital Worship and Online Applications

Digitalized worship and online understanding of religion are reshaping rituals and changing traditional constitutional systems. Individuals aim to make use of the opportunities provided by the digital world. Fluency and flexibility of new media technologies are different from traditional. This allows new forms of religiosity and practices. Although digital worship is now much less common than traditional worship, it is very interesting because it contains different forms of worship. Therefore, it is necessary to examine the areas of digital worship and digital practices.

Now let's examine popular digital worship practices within the framework of new media features defined by Lev Manovich (Manovich, 2002). When the services for digital worship are investigated, it is seen that the services for the Christian religion in particular are excessive. One of the most popular of these services is "Life Church" (Life Church TV, 2019). In particular, there are live streaming services from 28 different churches in 8 different states of the United States. When we look at service like this, we are witnessing that the internet has become a new tool for spreading the areas of worship. Organizations carrying out digital worship services are also integrated with social media sites. Thanks to these applications, the elements of the traditional church were transferred to the virtual world.

The basic features of the new media have been effective in digital worship models. Interaction, feedback, versatility, time and space differences are the main features. There are numerous communities, sites and digital practices that carry these characteristics and provide services for digital worship. It is important to explain the partnership of technology and religion through digital applications. This will lead to an easier understanding of the issue of digital worship. In particular, popular services belonging to the three great sacred religions have been studied within the framework of new media characteristics. The sites and applications reviewed are the most downloaded, clicked and preferred services in search engines and digital platforms:

**Table 1:** *Digital worship services of three holy religions*

| | | New Media Tools Features | | | | |
| | Digital Sources | Live broadcast | Social Interaction | Representation in Social Media | Creating Religious Identity | Mobile Application |
|---|---|---|---|---|---|---|
| Christian Worship | (Life.Church Tv,2019) | available | available | available | available | available |
| Christian Worship | (i.Church TV, 2019) | available | available | available | not exist | not exist |
| Christian Worship | (Gracechurch TV, 2019) | available | available | available | not exist | available |
| Jewish worship | (Swfs TV, 2019) | available | available | available | not exist | not exist |
| Jewish worship | (Synagogue TV, 2019) | available | not exist | not exist | not exist | not exist |
| Jewish worship | (Myjewishlearning Tv, 2019) | not exist | available | available | available | not exist |
| Islamic worship | (Makkahlive TV, 2019) | available | not exist | available | not exist | available |
| Islamic worship | (Thenationsmosque TV, 2019) | available | not exist | not exist | not exist | not exist |
| Islamic worship | (Zakariyyamasjid TV, 2019) | available | available | available | not exist | available |

First of all, three different sites have been examined for services to the Christian faith. When we look at the common features of the sites, live broadcasts are made from inside the churches. In addition, there are social interactions for digital worship and sharing via social media tools. Secondly, internet-based websites for Jewish faith were discussed. Only one of the sites reviewed opted for tape broadcasting rather than live broadcasting. Publications usually take place from inside synagogues. There is also the possibility of social interaction in publications and representation in social media. However, the lack of mobile applications in particular is a shortcoming. It is seen that digital services for the faith of Jews are weaker compared to services for the Christian religion.

Thirdly, the services for the religion of Islam were examined. In particular, live broadcasts are as varied as services for Christian religion. In addition to live broadcasts from Mecca, there are broadcasts from various mosques during prayer periods. However, when compared to the services of Christians, there is weakness in terms of social interaction. Representation in social media is mostly available. Another deficiency is the creation of religious identities in services. Users cannot demonstrate their religious identity. In terms of mobile applications, services are sufficient.

To sum up, the variety of services for Christians stands out. Religious groups are now able to address communities through social media tools. For example, Jesus has his own Facebook page. Buddha also has twitter accounts. There are also services that allow you to contact the Pope or watch Mecca live and pray. For instance, there are services like Godtube. com, which includes videos of Youtube for Christian faith, or various social media services like Millat Facebook, which is similar to Facebook but only for Muslims.

### Discussion and Conclusions

Although new media technology affects many areas, there is no holistic analysis or conceptual integrity on the subject. Especially the phenomenon of digital worship is an area that needs to be examined in more detail. To provide a new framework for the subject, it would not be right to describe digital worship with a definition performed only on the internet. It is important to show how digital media unites with digital worship, how it is shaped and how it affects societies.

Religion shapes and changes many elements in society. Changes in technology and media now affect the cultural structure. And the effect is inevitably seen in the religious sphere. Thanks to technology, societies have begun to adapt easily to different values and religious opportunities. We now live in a world where digital worship affects spiritual lives. The values of traditional beliefs not only change, but also become integrated with new media technologies. Today, social media is an important medium where individuals can discuss their various beliefs. Social media has become particularly rich with forums, podcasts and various apps. Therefore, issues related to all areas of life began to take place in the digital environment. The most important of these is the digitalization of worship.

Digital worship became the new form of religious practice. Digital worship shapes beliefs and at the same time helps traditional beliefs to enter culture in new ways. Therefore, the distinction between traditional forms of worship and digital forms of worship has become increasingly blurred. Traditionalists, on the other hand, oppose this blur. According to them, the activities carried out on the internet contain different strategies, so traditional forms of worship cannot be completely replaced. In the age of informatics, there is a cultural structure surrounded by the free movement of information. The coexistence of this cultural structure with digital practices indicates a different dimension. Because different religious understandings emerged as online and offline. This can lead to deviations from the purpose of worship.

Digital religious practices transformed by new media technologies. This technologies is also reflection of the offline environment. Different ideas were gathered together through religious practices. This happened thanks to the interaction, virtual community and multimedia, which are the own features of new media technologies. There are two sides in terms of worship. On the one hand, the advocates of traditional religion, on the other, adopt the characteristics of online culture. These two sides should be examined closely.

Comprehensive study of digital worship can be achieved through close examination of religion, culture and media. These areas are very critical for the development of interdisciplinary investigations. Internet pages, mobile applications, live broadcasts and many other media for digital worship are increasing day by day. This study, which focuses on the concept of digital worship, will shed light on future technology-religion relations.

# REFERENCES

(2019). 8 25, 2019 tarihinde Life Church: https://www.life.church/ adresinden alındı

Bednar, T. (2007, 9 5). *We Know More Than Our Pastors: Why Bloggers Are The Vanguard Of The Participatory Church.* https://tr.scribd.com/document/47331/We-Know-More-Than-Our-Pastors adresinden alınmıştır

Campbell, H. (2013). *Digital Religion Understanding Religious Practice in New Media Worlds.* Abingdon: Routledge publishing.

Campbell, H., & Garner, S. (2016). *Networked Theology, Negotiating Faith in Digital Culture.* Michigan: Backer publishing.

Dixon, P. (1997). *Cyberchurch.* UK: Kingsway publishing.

Feist, R., Shukla, R., & Beauvais, C. (2010). *Technology and The Changing Face Of Humanity.* Ottawa: University of Ottawa Press.

Gracechurch TV. (2019). 10 11, 2019 tarihinde www.gracechurch.org: www.gracechurch.org adresinden alındı

Højsgaard, M., & Warburg, M. (2005). *Religion and Cyberspace.* Abingdon: Routledge publishing.

i.Church TV. (2019). 9 11, 2019 tarihinde I.Church: www.i.church adresinden alındı

Makkahlive TV. (2019). 8 18, 2019 tarihinde Makkahlive: https://makkahlive.net adresinden alındı

Manovich, L. (2002). *The Language of New Media.* Cambridge: The MIT Press.

Myjewishlearning Tv. (2019). 10 1, 2019 tarihinde Jewishlearning: www.myjewishlearning.com adresinden alındı

Peacocke, A. (1993). *Theology For A Scientific Age: Being and Becoming Natural, Divine And Human.* Oxford: First Fortress Press publishing.

Peters, T. (2016). *Science, Theology, and Ethics* (1 b.). New York, USA: Routledge Publishing.

Swfs TV. (2019). 8 6, 2019 tarihinde Stephen Wise Free Synagogue: https://www.swfs.org adresinden alındı

Synagogue TV. (2019). 9 23, 2019 tarihinde Belsize Square Synagogue: www.synagogue.org.uk adresinden alındı

Thenationsmosque TV. (2019). 9 3, 2019 tarihinde Thenationsmosque: http://thenationsmosque.org adresinden alındı

Torrance, T. (1969). *Theological Science.* UK: Oxford Univercity Press.

Zakariyyamasjid TV. (2019). 9 6, 2019 tarihinde Zakariyyamasjid: https://zakariyyamasjid.co.uk adresinden alındı

# POLITICAL GAMES IN CAUCASUS AND CASPIAN GEOPOLITICS

CHAPTER

6

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At this stage of the statement, we must emphasize that cultural competition is as important as racial competition and that Iran is the founder, owner and protector of Iran's cradle of civilization. The Persian language, which started with the Iranian Firdevsi, united the archaic languages of the region under the Persian language and reflected this search to his literature and architecture. A very important point is that the Persian nationality continued to prevail with the cultural genes in the face of the Turkish nobles who held the racial genes and demographic initiative. As a matter of fact, on behalf of their nation Persians protect the civilization developed in the geography of Iran, the majority of which is formed by the tribes of Turks throughout the history. This claim included Iranian Turkish administrations and Iranian civilization identified with Babur, Harzemshah, Hazara, Seljuk and Ottoman Turkish societies and made itself felt by them. So, for the Turkishness of Iran, the diagnosis of the Kesrevi school is in the form of Turkish-speaking Farsiar. Persian cultural imperialism is stopped by Ataturk of the Republic of Turkey; nowadays intellectuals of Karakalpakistan. Turkmenistan, Uzbekistan. Afghanistan and Azerbaijan are aware of Iran's declared cultural policy. To summarize, the Persian nobility uses the culture trump against the racial trump of the Turkish nobles. Entering too much detail may lead to get off the point. To go back to the declaration it can be summarized that; at the basis of political, economic and other relations between Azerbaijan and Turkey lies the cultural initiatives that include the Turkish world. The trump of Turkey and Azerbaijan against Iran is agnation denominator. Iran's thesis against the both countries is based on culture. The cultural relations of this nature between Azerbaijan and Turkey followed a fluctuating course positive and negative.[1]

Nations' ethnic identities and their distribution across the globe, even under the name of different administrative structures, may give them superiority, while other nations who are uncomfortable with this feature can establish protectionist or aggressive alliances. Such structures can now bring them together around their interests. The solidarity between Iran and Armenia is a solidarity of this nature. We do not want to go into details as this matter was examined in detail by us. We wish to mention briefly the Azerbaijan- Iran relationship, and return to Azerbaijan-Turkey relations. When Iran was added to the Minsk group as an extension, it hinted that it could use this position as an element of oppression against Azerbaijan in the Azerbaijan-Armenia relations. This event was the first stage of the developments. According to the commercial, political and cultural agreements between Azerbaijan and Iran; while Iran opened a consulate in Nakhchivan, Azerbaijan would open a consulate in Tabriz. While Iran makes

[1]    ALEKSANDROV, S. K.; **Stranı Mira (World States)**, Rus Politik - Edebiyat Politizdat Publications, Moscow, USSR, 1989, page 13

TV broadcast covering and undefined area towards the territory of Azerbaijan, Azerbaijan would be entitled to do the same. However Iran has broken its promise and sought new sanctions encouraged by the prestige of the Minsk. In the second phase, Azerbaijan hinted that Iran should be fair in in the role of arbitrator in the negotiations between Azerbaijan and Armenia by convincing the potential of the communal society within Iran. In the following days, Iran intervened in the oil Azerbaijan's exploration activities in the Caspian Sea with a military demonstration. This was the third phase. However, while Iran claims that this region belongs to it, it has formerly accepted that Azerbaijan can search for oil in a region in the south of the present location and much closer to Iran geography, and Azerbaijan has started oil exploration activity in those regions (these are "Talış and Lankaran Sea beds).

The relations between Azerbaijan and Turkey are developing day by day. Turkey and Azerbaijan should be very careful about their relationship in the developing world. Because when we look at our glorious history, there has been an extremely wrong war between the state of the Safavids and the Ottoman state. Today we must erase them, we must eliminate the sectarian conflicts in vain. We must firmly unite under the roof of Islam and Turkishness. Then we'll be strong. Leading the states of Central Asia will be our responsibility. Because the state which protected the essence and Turkishness of the former Soviet states the most was Azerbaijan. Azerbaijan owes this to its high level of intellectual accumulation and many famous and renowned scientists who are the only examples that made the Turkish world proud.

The turning point of the developments is that Azerbaijan signed an agreement with Western countries in 1994 to drill oil. This was a strategic step towards breaking the monopoly of Russia in the region. By that time, Moscow, which directly or indirectly controlled the energy sources in the Caucasus, had the only pipelines through which oil and natural gas could be delivered to the outside world. Washington has declared the Caucasus as a "vital region" and NATO has declared it a "strategic region. If today's trend continues as expected, then one of the steps will be the establishment of US or NATO bases in the two countries.

In order to better evaluate the processes in the North Caucasus, it is necessary to look at the developments in the last 10 years in the whole region. The turning point for the developments is that Azerbaijan signed an agreement with Western countries in 1994 to drill oil. This was a strategic step towards breaking the monopoly of Russia in the region. By that time, Moscow, which directly or indirectly controlled the energy sources in the Caucasus, had the only pipelines through which oil and natural gas could

be delivered to the outside world. Russia's monopoly on the energy sources has suffered a major setback on the steps taken by Azerbaijan to transfer the oil from the Caspian Sea through Georgia and Turkey to international markets. This was actually a scenario written by the US to save the newly independent Caucasian republics from entering the orbit of Russia.[2]

Washington was therefore planning to hit a few birds with one stone: it would meet its own need in part with the Caspian oil, and more importantly, it would set up new alliances in the Caucasus, moving Azerbaijan and Georgia away from Russia, possibly breaking Moscow's activity in its own backyard perhaps forever and would have kept an important bridgehead in the region where Iran is also located. Russia, having the difficulty of establishing a new state and struggling with economic problems, had no power to disrupt the US plan. Azerbaijan managed to approach West step by step without making Russia angry during the time of the experienced politician Heydar Aliyev. The way Georgian government under the direction of Eduard Shevardnadze turned to the West was more painful; Tbilisi's use of wrong tactics, on the other hand, the fact that Russia has more sanctions on Georgia has made the process more difficult.

Nevertheless, the changes in the power in the two countries enabled the US to strengthen its position. Washington has declared the Caucasus as a "vital region" and NATO has declared it a "strategic region Washington. If today's trend continues as expected, then one of the next steps will be the establishment of US or NATO bases in the two countries. In this case, Russia will be alone with Armenia in the region. In fact, by opening a parenthesis here, it is important to note that the US did not leave Armenia completely under the influence of Russia. The US, which is trying to influence Yerevan through the Armenian diaspora, is doing the most foreign aid to this country after Israel - compared to the population - .

The participation of Azerbaijan and Georgia to the West camp is not only a political but also military development, which will weaken Russia's "soft belly" in the Caucasus. The already expanding NATO has been based on the eastern and northern borders of Russia. The US's "Greater Middle East Project" also includes provides stability in the Caucasus, For this reason. the most critical question at this stage is whether the US will "play" with Northern Caucasus in order to further weaken Russia.

Russia, on the other hand, managed to shake off the shock of the collapse of the Soviet Russia, freed itself from waddling and entered into

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2   ALLAHVERDİYEV, Nizameddin, GÖYÇAYLI, Şövqi; **Azerbaycan Respublikasının** İqtisadi **ve Sosial Coğrafiyası (Azerbaycan Cumhuriyetinin** İktisadi **ve Sosyal Coğrafyası 'Economic and Political Geography of Azerbaijan Republic')**, Azerbaycan Öyretmen Neşriyyatı Publications, Baku, Azerbaijan, 1996, Page 89-98

competition with the US on the subject of Caucasus. For example, Moscow has trumps to ruin or at least obstruct US's plan to turn Georgia into a fortress in the Caucasus. Russia has great political and military power in Abkhazia and South Ossetia, which declared their independence while once positioned under the Georgian umbrella. South Ossetia's joining the North and together affiliating to the Russian Federation and the Abkhazians' follow-up mean Georgia's de facto fragmentation. Karabakh is a common trump card between Russia and the US. It is also known that the United States time to time used the Chechen card too.

However, Russia has succeeded in undermining the US trump card as the latest terrorist incidents have stigmatized the Chechens as terrorists in the international public opinion. Even though the question of "Who is the benefiting?" may produce interesting answers, at this stage arguing that the terrorist acts in Moscow and Caucasus can be connected to the Russian or Western intelligence services means entering in the zone of the "conspiracy theory". However, it is also true that these attacks, in terms of results, evoke the moves in Caucasian chess. If this is true, dangerous developments in the form of ethnic conflicts, riots, wars or new terrorist incidents in the Caucasus, which already looks like a timed bomb with its complex ethnicity, should be expected. This implies that a process that can take Russia up to fragmentation can begin.

Amendment of the articles of the Constitution of Azerbaijan relating to the name and language of the nation, concern for the future of the Azerbaijanis highly educated by means of student exchange programs or higher education in Turkey, abolishment of Turkey's guarantor rights with an amendment to the Constitution of Nakhchivan Autonomous Republic are issues that can not be considered positive. On the other hand; issues such as: adoption of Latin letters by law enacted in 1991 thus providing unity of alphabet with Turkey, in the beginning three and later two Turkish TV channels' making live broadcast in Azerbaijan and following this an Azerbaijani TV channel' starting to make live broadcast in Turkey are positive developments. However, all these do not mean that a Turkic cultural strategy to be followed against Persian cultural imperialism is specified. The factor of "Armenia" is present at the center of Azerbaijan-Turkey-Georgia triangle just like the Azerbaijan-Turkey-Iran triangle. In this respect, it will be necessary to take a look at the ethno-social structure of Georgia. In Georgia Ossetians, Abkhazians, Ajars and Armenians as well as Turks live. Formation of a Turkic front between Azerbaijan and Turkey against the Persian-Armenian alliance will affect Georgia closely. Cevaheti is the Ahiska of the recent history. According to the decision of the European Security Council, the Turks who were deported from this region had the right to return to their homes within 10 years. While the Turkish population in

Georgia does not want the Turkish population to intensify, Armenians who do not want to evacuate Cevaheti for Turks can establish an anti-Turkish Armenian-Georgian alliance on this issue. An Armenian-Georgian-Persian solidarity may appear and this situation requires the intensification of Turkish-Azerbaijani relations.

While Armenia and Iran pursue anti-Western, pro-Russia policies, Georgia pursue anti-Russia and pro-Western policies such as Turkey and Azerbaijan. However, although the Adjara Autonomous Republic is connected to Georgia, it is not pro-Western and pursue pro-Russia policies linked with Armenia and Cevaheti. Turkey is not using its guarantor rights on Adjara in spite of the Treaty of Kars. If the Azerbaijan-Turkey and Iranian Turks form a front in Caucasus, the Turks of Georgia will not stay out of such development. Such a development can lead to the Georgian-Armenian-Persian Alliance. Not only that, it also includes Derbent, which is still part of the RF, which enhances the already existing Armenian, Persian and Russian solidarity. While Armenia and Iran pursue anti-Western, pro-Russia policies, Georgia pursue anti-Russia and pro-Western policies such as Turkey and Azerbaijan. When Azerbaijan -Turkey relations discussed in ethno-social ground, the strain factor is important. Territorial solidarity based on ethno-cultural factors involves Iran, one of the fundamental elements of the region, with its Persian ethno-cultural structure. Azerbaijan-Turkey solidarity featuring ethno-social factors will also include Georgia and Russia[3]

The powerful countries of the region Iran and Turkey had many similarities in terms of internal politics. While Mustafa Kemal Ataturk was performing a series of reforms to make Turkey a nation state based on Turkish culture instead of an religious community based on the Arab culture; in 1925, Shah of Iran, Reza Khan, took the example of Ataturk in his internal politics. Reza unlike the secular principles of Ataturk Khan could not put the secular principles of Ataturk in state administration, but by applying pressure to the mullahs opposing the application of similar reforms as Turkey has realized many innovations. Just like Atatürk's fight with Islamists in Turkey, Shah was also engaged in relentless conflict with the mullahs. The era of Atatürk and Reza Khan was the scene of very good neighborly relations and cooperation. Atatürk founded the Sadabat Pact, which included Iran and Afghanistan, against Soviet expansionism.[4]

In the 1990s, Iran built its politics on the environment and the region on three main pillars: Caspian Politics, Gulf Politics and Middle East Pol-

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[3]    http://strateji.cu.edu.tr/TURK_DUNYASI/02.asp ; 2 April, 2005

[4]    http://strateji.cu.edu.tr/TURK_DUNYASI/02.asp ; 2 April, 2005[4]    G E Y B U L L A Y E V, Giyaseddin; **Azerbaycan Türklerinin Teşekkülü Tarixinden (Azerbaycan Türklerinin Teşekkülü Tarihinden"From The History Of The Formation Of Azerbaijan Turks")**, Azerbaycan Devlet Neşriyyatı Publications, Baku, Azerbaijan, 1994, Page. 79

itics. After the collapse of the Soviets and declaration of independence of the Central Asian Turkish Republics one by one, a natural rapprochement between Turkey and these countries began. Both Iran and Russia were concerned with this rapprochement. Russia in the first place targeted the countries of Caucasus which could create a bridge between Turkey and Central Asia. While trying to establish its control on the region at any cost, has also led the Caucasus to political turmoil and conflict. The Azerbaijan-Armenia War and the occupation of Karabakh, the struggle in Georgia and Chechnya was always a product of this effort. For Russia, rather than Turkey gaining strength in Central Asia, Iran would be better.

Iran was obliged to establish political and economic cooperation with Russia, Azerbaijan, Turkmenistan and Kazakhstan having territory at the shores of the Caspian. However, his relations with Azerbaijan were gathered at a very gentle point. Azeri and Turkish population exceeding 30% in the country was the biggest fear of Iran. Especially if the Azerbaijanis gathered in the North and turned to a national awakening, the unification of North and South Azerbaijan was inevitable. So Iran who would lose its common border with Turkey, becoming a Gulf country and its effectiveness in the Caspian and Central Asia would be completely lost. For this reason, Iran did not have very cold or very warm relations with Azerbaijan. Iran implicitly supported every initiative against Azerbaijan. Russia provided to Armenia the nuclear warhead missiles titled S-125 missiles in early 1997, which will be used against Azerbaijan and Turkey was determined. Sold missiles were transported through Iran, and once again it became obvious Islamist Iran was an enemy with whom.[5]

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5   http://www.yesil.org/teror/iranbolgesi.htm ; 19 Nisan, 2005

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6    ASANİSHVİLİ, George; "Ist   International Silk Road Symposium on Media News, 24 SAAT", **Scientific and political aspects of the "Great Silk Road"**, 26 June, 2003, page. 78

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However, it is also true that these attacks, in terms of results, evoke the moves in Caucasian chess. If this is true, dangerous developments in the form of ethnic conflicts, riots, wars or new terrorist incidents in the Caucasus, which already looks like a timed bomb with its complex ethnicity, should be expected. This implies that a process that can take Russia up to fragmentation can begin. Turkish Minister of State Tuzmen met with Azerbaijani President Ilham Aliyev as part of his contacts in Baku. Minister of State Kürşad Tüzmen proposed to the President of Azerbaijan Ilham Aliyev, whom he met in Baku, for the export of goods and services against energy. Saying that this proposal could provide important inputs for both sides, Tuzmen added that if the proposal was accepted by Azerbaijan, it would contribute $ 1 billion to the trade volume. Saying that Azerbaijan does not want to base its economy on oil completely, Tüzmen pointed out that they want to shift from the energy sector to the service sector except petroleum products.Emphasizing that Turkey wants to do a lot of work in various fields in Azerbaijan and this country still has very pristine areas, Tuzmen underlined that Turkey already has numerous goods and services to provide to this country.Saying that the banking system is a deficiency in Azerbaijan and the banking system is seen to be developed in order to increase trade very well, Tuzmen underlined that there are many successful examples of trade in exchange of goods realized with many countries.

Saying that even though exchange of goods is normally made against payment of money Kursad Tuzmen emphasized that between the countries such as Turkey and Azerbaijan sharing a common language, religion and history union a number of mechanisms can easily be put into practice[9].

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7    EIU Azerbaijan Country Report July 2000
8    TİKA Publications
9    http://www.525ci.com ; 19-11-2004

## REFERENCES

ALLAHVERDİYEV, Nizameddin, GÖYÇAYLI, Şövqi; Azerbaycan Respublikasının İqtisadi ve Sosial Coğrafiyası (Azerbaycan Cumhuriyetinin İktisadi ve Sosyal Coğrafyası 'Economic and Political Geography of Azerbaijan Republic), Azerbaycan Öyretmen Neşriyyatı Publications, Bakü, Azerbaycan, 1996, page 46

ASANİSHVİLİ, George; "Ist   International Silk Road Symposium on Media News, 24 SAAT", Scientific and political aspects of the "Great Silk Road", 26 June, 2003, page 78-89

ALEKSANDROV, S. K.; Stranı Mira (World States), Rus Politik - Edebiyat Politizdat Publications, Moscow, USSR, 1989, page 13

ALLAHVERDİYEV, Nizameddin, GÖYÇAYLI, Şövqi; Azerbaycan Respublikasının İqtisadi ve Sosial Coğrafiyası (Azerbaycan Cumhuriyetinin İktisadi ve Sosyal Coğrafyası 'Economic and Political Geography of Azerbaijan Republic'), Azerbaycan Öyretmen Neşriyyatı Publications, Baku, Azerbaijan, 1996, Page 89-98

http://strateji.cu.edu.tr/TURK_DUNYASI/02.asp ; 2 April, 2005

GEYBULLAYEV, Giyaseddin; Azerbaycan Türklerinin Teşekkülü Tarixinden (Azerbaycan Türklerinin Teşekkülü Tarihinden"From The History Of The Formation Of Azerbaijan Turks"), Azerbaycan Devlet Neşriyyatı Publications, Baku, Azerbaijan, 1994, Page. 79

http://www.yesil.org/teror/iranbolgesi.htm ; 19 Nisan, 2005

ASANİSHVİLİ, George; "Ist   International Silk Road Symposium on Media News, 24 SAAT", Scientific and political aspects of the "Great Silk Road", 26 June, 2003, page. 78

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# BAKU-TBILISI-CEYHAN CRUDE OIL PIPELINE PROJECT

CHAPTER

7

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## INTRODUCTION

Azerbaijan, with its rich natural resources, was the focus of the West in 1991 when it regained its independence. The threats the country faced pushed him to find strategic partners and to attract considerable Western capital to the region. Azerbaijan has seen itself close to the US-Georgia-Ankara alliance in terms of the threats that the geopolitical siege of the Moscow-Yerevan-Tehran alliance would create for itself. In particular, Turkey has a special importance in the alliance. Turkey, being a connection between the Turkish Republics and NATO, has tried to make use of the role of this organization in the direction of expansion towards the Caspian Basin. Political, economic and geographical factors have led Turkey to struggle for Caspian Basin.

The topic which Turkey attaches the biggest importance in Azerbaijan and the Caspian region is the "oil". Turkey's foreign policy towards the region in recent years has actually indexed to oil and the Baku-Ceyhan pipeline. The US administration supports the Baku-Tbilisi-Ceyhan pipeline project. This project aims to reduce the dependence on Russia in a way. Because of the Karabakh conflict, Baku-Armenia-Ceyhan pipeline was not accepted as an alternative solution. Due to its proximity to the West, Georgia has assumed the role of the only gateway of Azerbaijan to Europe. In light of all this preliminary information, it is clear that Azerbaijan is a very important strategic country for Turkey. My aim is to follow the recent developments of the Baku-Tbilisi-Ceyhan pipeline and try to determine how successful Turkish foreign policy practices are on this issue.

Oil affects not only economically, but also politically, the countries that possess it in world politics. Thus, countries with rich reserves sometimes face various political intrigues depending on oil and sometimes make it a strategic threat.[1]

Nowadays, oil, also known as black diamond, is one of the most important energy sources in the world. On the one hand, the rapid increase in oil consumption along with industrialization, on the other hand, the fact that an alternative energy source to oil has not been found yet, has further increased the importance of oil. The fact that the oil reserves of the Western powers will end in the near future has led the US, EU and other European countries to focus their attention on Central Asia. The Republics that emerged after the collapse of the Soviet Union did not have the economic

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[1]    Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, syf. 67

potential to process the oil and natural gas reserves on, they own because of the insufficient capital and the obsolete technologies.[2]

For this reason, these oil-rich republics cooperate with major western oil companies to operate and develop their existing reserves. In Azerbaijan, oil is located on the Apsheron peninsula extending to the Caspian Sea, on the banks of the Kura river, in the Kabristan area and near Ganja. Given the fact that almost all of the USSR's oil needs were met in Azerbaijan during the war years, the geostrategic importance of Azerbaijan is understood more. Azerbaijan's known oil reserves are about 8 billion barrels, and according to 1989 data, 77% of the oil is supplied from the Caspian Sea.[3] However, Azerbaijan's energy reserves are not fully known. Some experts estimate that the potential oil reserves are about 40 billion barrels and the natural gas reserves are 500 billion cubic meters.

In September 1992, two state companies, namely Azerineft and Azneftkimya, were merged to operate the rich oil reserves of Azerbaijan, and the Azerbaijan Oil Company (The Azerbaijan Republic-SOCAR) was established.[4] An agreement was signed with Azerbaijan International Oil Consortium (AIOC) to prevent the development of oil fields. Then Russia was included in the consortium and the agreement was revised and 102% shares of SOCAR was transferred to Russia. On 20 September 1994, the contract called as "Mega Project" was signed between SOCAR and AIOC and AIOC was authorized to search and extract oil in Azeri, Güneşli and Çırak regions. The relevant agreement entered into force on 12 December 1994 after its approval by the Azerbaijani Parliament.

Turkey has been involved in both agreements in order to develop production of the Azerbaijani oil. The first of these is the Mega Projects, within the framework of which the share of the Turkey Petroleum Corporation (TPAO) is 6.75%. The second project is 9%. The Shah Sea Project is also the only project in which Iran joins but United States does not.[5]

According to the estimations, there are about 200 billion barrels of oil reserves in the Caspian Sea worth 4 trillion dollars. According to experts' claims, the Caspian Sea, situated in the middle of the world's richest underground resources, is on the way to becoming a region of oil and natural gas producer that can compete with some Iranian Gulf countries. Azerbaijan and Kazakhstan, which have the largest oil reserves in the region and do not want to share it with their neighbors, argue that the Caspian is a sea. Iran, Russia

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[2]  Doç.Dr.Kenan Çelik,Cemalettin Kalaycı, "Azeri Petrolünün dünü ve Bugünü", Avrasya Etütleri, TİKA, Sayı 16, 1999, s. 105
[3]  I.b.i.d., s.106
[4]  I.b.i.d., s.107
[5]  I.b.i.d., s.109

and Turkmenistan, not having so much reserves, argue that the Caspian is a lake and that the oil to be produced in this region should be shared[6]

Russia says that the Caspian Sea is a lake and that it is not subject to the International Maritime Law and opposes to the use of oil and gas reserves of the Caspian Sea solely by Azerbaijan. According to this view put forward by Russia and Iran, wealth in the Caspian Sea should not be used individually by the five coastal states but used together in collaboration by the five states. Chapter 9 of the Maritime Law Convention relates to closed and semi-closed seas. Considering this article, Caspian Sea is within the scope of the Maritime Law. This situation refutes the opinion of Russia that "Caspian is a lake and should be subject to international rules regarding the lakes, because, according to the relative chapter of the agreement, being closed does not prevent the acceptance of the Caspian as a sea."[7]

Russia applied to the first oil blackmail after the summer of 1994, after realizing not being able to prevent the signing of the Mega project. The aim of Russia was to use the Karabakh issue and the status of the Caspian as a means to put pressure on Baku. As for the status of the Caspian, Iran has assumed the role of a reliable ally of Russia since the first day. Russia and Iran's participation in oil agreements with Azerbaijan shows that they do not have a solid attitude in this regard.

Baku-Ceyhan pipeline, assiduously emphasized by Turkey, starts from the Sangachal terminal near Baku, entering in Turkey via Georgia and following the Erzurum, Erzincan and Kayseri route, ends at Ceyhan.[8]  In the long term, in addition to the oil of Azerbaijan, Kazakhstan oil and Turkmenistan natural gas as well as are thought to be transferred via the East-West corridor. Accordingly, Kazakh oil and Turkmen gas will be transferred to Baku first and from here to Turkey via the Baku-Ceyhan pipeline by means of the Transcaucasian line to be the laid under the Caspian Sea. In the project work carried out by Turkey, it is estimated that a total of 45 million tons of crude oil, 25 million tons of which from Azerbaijan and 20 million tons of which from Kazakhstan, will be delivered to Ceyhan terminal. The high investment and transportation costs of the Baku-Ceyhan pipeline are just one of the factors that hinder the realization of this line. Moreover, the dependence of the Turkish Republics on Russia will decrease due to oil and natural gas pipelines. Especially Russia and some Western countries are concerned that if the pipeline goes through Turkey, economic relations between Turkey and the Turkish Republics will further develop Therefore,

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6    I.b.i.d., s.110
7    I.b.i.d., s.111
8    I.b.i.d., s.117

it can be said that the obstacles in front of the Baku-Ceyhan pipeline are political as well as economic.

The route passing via Turkey is opposed on the grounds that it would be too costly. However, the developments occurring in this regard, in particular specially the declarations of the President of the USA and Aliyev's in favor of the Baku-Ceyhan pipeline and finally the signing of the Ankara Declaration, indicates that Turkey line is more fortunate than others.[9]

Turkey, with its rather limited resources, has been producing 23 thousand barrels per day (1.1 million tons per year) crude oil and is largely dependent on foreign oil.[10] With the adoption of the Baku-Ceyhan oil pipeline project, Turkey's oil imports can be carried out more easily and cheaply. It appears to be a strong possibility that when the main oil production begins, the Baku-Supsa route can be extended up to Ceyhan supplying oil to the international markets through Turkey. Upon acceptance of this project, Turkey will be able to meet the growing energy needs at low prices by buying the majority of oil that will pass via this route. Thus, it is estimated that Turkey will achieve 250-300 million dollars a year handling fee. However, this income is insignificant when compared with the billions of dollars of foreign investment opportunities and the volume of business to be generated with the establishment of the Baku-Ceyhan line, in the next five years in the Ceyhan region. Another advantage of this line is that it will prevent the increase of oil traffic in the straits.

Caspian oil has become a new power focus in world politics. The possibility of realization of the Baku-Supsa route, which will be cheaper than the Baku-Ceyhan route supported by the US also, does not happen to be warmly welcomed by Turkey.[11] Because Turkey will earn a substantial income from oil pipeline. This income will also contribute to the reduction of oil expenditures, as well as the control of energy resources on transport routes. Thus, the strategic importance of Turkey is located between Asia and Europe will increase further. If we consider cultural and ethnic ties of Turkey with the states newly gained independence; we can see how difficult it is for Turkey to pursue a realistic and pragmatic policy. Turkey's dependency on US in the Caucasus policy is an undeniable fact. US hopes to connect Turkey, Azerbaijan and Georgia to the West by means of the Baku-Ceyhan pipeline project.[12] Turkey's biggest goal is to reduce oil depen-

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[9]   I.b.i.d., s. 122

[10]   I.b.i.d., s. 119

[11]   Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, s. 70

[12]   Rainer Freitag-Wirminghaus,  "Turkey's Political Role in Central Asia and in the Struggle for New Energy Resources" , Südosteuropa Aktuell, Munchen,Südosteuropa-Gesellschaft, 1999, s. 49

dence on Russia and Iran. Enabling the countries in the region to diversify their export routes in a free competitive environment and in a sustainable way in place of remaining dependent to Russia to export their products will accelerate and consolidate their economic independence. This will be a matter of vital importance to ensure economic and political stability in the region, contributing to the long-term economic benefits of Turkey.

US considers Turkey as a strong state, a provider of security in the region as an extension of its Caucasus policy. Especially in the Clinton period, declarations made by the US shows that US has followed a pro-Ceyhan policy. The main purpose of the US is to increase the diversity of oil in the region by eliminating the Russian monopoly in this region, to strengthen the economic and political positions of the regional states by establishing a kind of cooperation in the region and to reduce the dependence on the Middle East on oil. [13] The US administration is more concerned with the political and strategic depth of the Baku-Ceyhan pipeline. Already, the US and European oil companies have accused the US administration of political action rather than economic thinking.

In the case of the use of Novorossisk and Supsa lines, oil is supposed to be transported by tankers. But Turkey has put various restrictions on the passage of oil tankers from Bosporus. Upon this development, the oil is to be transported through Bulgaria, Romania and Ukraine to the world markets without passing through the straits. The failure to reach a decision for the Baku-Ceyhan pipeline allowed the Russian Energy Minister to increase its activities for the introduction of Novorosissk.[14] However, discussions with Moscow on this issue can be considered as a method of disturbing Washington. When Russia originally offered the Baku-Novorossisk line for the early oil flows to the export pipeline, many Western states, particularly the US, were concerned about Russia's possible pressure during the transportation of oil and opposed to it. [15]

Russia has enough oil exports through the Black Sea. If the Caspian oil is added here, Istanbul and Dardanelles Straits will not be able to carry this heavy load. The use of small tonnage tankers will increase the cost. At the time of the discussion on the route to transport the early production oil, Russia has already claimed that there is a pipeline between Baku and Novorossisk port, and this line is the only alternative to be realized both cheaply and quickly. [16] According to this, the oil will be pumped from

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[13] I.b.i.d., s. 54

[14] Doç.Dr.Kenan Çelik,Cemalettin Kalaycı, "Azeri Petrolünün dünü ve Bugünü", Avrasya Etütleri, TİKA, Sayı 16, 1999,s. 118

[15] Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, s. 70

[16] I.b.i.d., s. 76

Baku to Novorossisk port, where the oil will be loaded into the tankers and will be delivered to the world markets via the straits. Turkey, however, based on the problems that arise because of increased oil tanker traffic in the Bosporus indicated that it is unacceptable to bring Kazakh and Azeri oil to the Black Sea due to environmental and strategic facts and has made serious warnings regarding the plan. Furthermore, Turkey accepted new regulations relating to the straits and put into effect in 1994. In accordance with the provisions of the Montreux Treaty, non-coastal states may enter commercial ships freely through the Straits. Turkey asserted that it has been 62 years since the Treaty of Montreux was signed, in the course of this time traffic in the Straits increased considerably, therefore the straits must be regulated and taken under control.[17] If the oil tankers are allowed to pass, the straits will be in great danger. Turkey therefore imposed some restrictions on the passage of oil tankers through the Straits by adopting new regulations.

On these developments, Russia made a new attempt to reduce the importance of the Straits. A protocol was signed in 1994 for the withdrawal of 350 km of pipeline from Russia to Bulgaria and Greece to Alexandrapolis port. On October 9, 1995, two routes were determined for the marketing of early production oil in Baku to the international markets. The first one is the North Pipeline, which extends from Baku to Novorossisk port of Russia, and the other is the Western Pipeline from Baku to Georgia's Supsa port.[18]

Apart from the Baku-Novorosisk and Baku-Supsa pipelines, there are different alternatives considered for the main oil transportation, especially Baku-Ceyhan, Baku-Basra and Baku-Pakistan. With Baku-Basra line, it is possible to deliver Azeri oil to the gulf via Iran and from there to the world with tankers. However, almost all major countries are opposed to this proposal. Us, in particular, is extremely worried about giving such a trump to Iran.[19] According to the parties defending the idea that Baku-Ceyhan line should pass via Iran instead of Turkey and Georgia this route is both costly economically and also it is not responding to Azerbaijan's strategy and therefore it is contrary to the alternative pipeline rationale. It also brings the concern that the export of oil from Georgia lead to the monopoly of this country on transfer of oil. Another issue discussed is the safety of the pipeline. Those who want the line to pass through Iran claim that Georgia is extremely unfavorable in terms of security, considering that Georgian territory is the scene of countless conflicts.[20]

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[17] Doç.Dr.Kenan Çelik,Cemalettin Kalaycı, "Azeri Petrolünün dünü ve Bugünü", Avrasya Etütleri, TİKA, Sayı 16, 1999,s. 115

[18] I.b.i.d., s.115

[19] I.b.i.d., s.116

[20] Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, s. 74

It seems attractive that the Iranian route at first glance is cheap. But then this ostensibly highly favorable route can create some strategic problems and cause major economic losses. Due to the security problems in the part of Baku-Pakistan which will pass through Afghanistan, the chance of these two lines is very low. Consequently, the route the main oil will be carried will most likely be one of the Baku-Novorossisk, Baku-Supsa and Baku-Ceyhan routes.

As mentioned earlier, it is very difficult for Turkey to pursue a pragmatic policy Caucasus. At the same time the US sphere of influence in the region it is so effective that the government of Turkey or another state in the region seem to be impossible to pursue an independent policy from the US. The Baku-Ceyhan project is a very sensitive and particularly noticeable issue for the Turkish military. During the Çiller period, the Baku-Ceyhan project ranked second in the party program and it was stated that the Bosporus would be closed if Baku-Novorossisk line was accepted.[21]

In fact, Turkey leans towards a pipeline project passing through Armenia. Azerbaijan's response to Ankara, which wants to soften its relations with Armenia, is clear: negative. Azerbaijan even reacted to Ankara's passivity during the 1997 Russian-Armenian crisis. What really needs to be questioned in policy of Turkey towards the region is, "while on one hand defending the Baku-Ceyhan and Turkmen gas pipeline via Caspian Sea within the scope of the "East-West Corridor" strategy, on the other hand giving priority to the Blue Stream Project which is clearly an alternative to the Turkmen gas and which makes Turkey largely depending on a single source ( Russia). The understanding that is effective in the decision-making process on this issue in Turkey, giving priority to the Blue Stream project caused the postponement indefinitely of the transfer of Turkmen gas from under the Caspian Sea in a parallel line to Baku-Ceyhan line reaching Turkey, which has resulted in the exclusion of an important element that would increase the chances of economic feasibility.[22]

The world's second largest oil company, British Petroleum, announced the construction of the Baku-Tbilisi-Ceyhan Pipeline in September. The project is expected to be completed in 2005. BP Azerbaijan President David Woordward has announced that another group led by BP will decide to invest $ 5 billion to develop oil fields on September 18th.[23]

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[21] Rainer Freitag-Wirminghaus, "Turkey's Political Role in Central Asia and in the Struggle for New Energy Resources" , Südosteuropa Aktuell, Munchen,Südosteuropa-Gesellschaft, 1999, s. 50

[22] A.Necdet Pamir, "Baku-Ceyhan: Bitmeyen Senfoni", Avsam Analizler, bknz: www.avsam.org.tr

[23] http://www.arkitera.com/haberler/2002/08/22/bakuceyhan.htm

### ENERGY RESOURCES AND BTC[24] PROJECT

Turkey's geographic location is close to Middle East and the Caspian Sea basin where 70 percent of the world's energy resources that have been identified to date is present. For the transport of Caspian Sea oil and gas reserves the route reaching the Mediterranean through the eastern Turkey is the shortest and the low-cost, convenient and reliable option from a technological and environmental standpoint. On the other hand, transporting such large amounts of oil from narrow and traffic-intensive Turkish Straits by tankers is not a valid way. For these reasons Turkey has focused her efforts on the realization of the transfer of Caspian oil and natural gas reserves to the Western market over the East-West Energy Corridor. The pipeline projects connecting the Caucasus and Central Asia to Europe are important for the integration of the region into the West. Safe and commercially profitable pipelines will help the region to achieve stability and prosperity. At this stage, the Baku-Tbilisi-Ceyhan Crude Oil Main Export Pipeline (BTC) Project was planned for both Central Asia and Azerbaijan oil. This is most commonly referred to as Baku Ceyhan (BTC). The construction works are currently in progress as of 2005 and will start to pump Azerbaijan's oil through BTC at full capacity starting from the second quarter of 2005 according to the approximate calculations. Within the scope of this project, Azerbaijan has launched a new project for an alternative route to Baku - Supsa and Baku - Novorossisk oil pipelines. Within the scope of this project, European markets, which are new markets for Azerbaijan Petroleum, are opened. Since Russia is against BTC, it is making all kinds of pressure on Azerbaijan side. Lastly since 1 January 2005, Russia has stopped exporting its natural gas to Azerbaijan. Russia says that the cause of the incident arose from the problems arising in the natural gas lines imported in Turkmenistan. However, the incident was echoed in Baku as a political game of Russia to Azerbaijan within the scope of the BTC project, which is almost to be completed. Around 1 billion dollars' worth of Azerbaijan oil per year will be exported to European markets over Ceyhan, Mediterranean route in the scope of BTC. It is estimated that both Azerbaijan s the oil producer and Georgia as a transit country as well as in Turkey will profit from the project.[25]

The legal framework of the BTC Project was completed at the end of 2000. Detailed engineering work was finalized in June 2002. The construction phase, which is the third and last phase, started on 10 September 2002 and is expected to last for 32 months. The groundbreaking ceremony for

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[24]   Bakü Tiflis Ceyhan ham petrol transferi için inşa edilmekte olan boru hattı projesine verilen addır.

[25]   http://www.ans.az ; Azerbaycan bağımsız ANS Televizyonundaki Ana Haber Bülteninde haber konusundan derlenmiştir. 9 Ocak, 2005 Tarihli ANS TV Ana Haber Bülteni

construction was made on September 18, 2002, with the participation of the Presidents of Turkey, Azerbaijan, Georgia and US Secretary of Energy in the Azerbaijan's Sengaçal region. In addition, in October 2002 between Turkey and Azerbaijan, in December 2002 between Turkey and Georgia BTC Project Environmental and Social Impact Assessment was approved. The first tanker to carry the Caspian oil is expected to be loaded in Ceyhan in the second half of 2005. Regional energy trends played an important role in the determination of the pipeline route. The BTC pipeline will not only transport Caspian oil to the Western markets, but also reduce tanker traffic in the Turkish Straits, safeguard navigation, protect the environment and contribute to the security of Istanbul's 15 million population.[26]

## CONCLUSION

The BTC Project provides a robust and viable option for Europe to diversify energy supply in a regular, safe and cost-effective way. This project is not only economic but also the safest and most strategically sound route in terms of the environment. Thus, Turkey will facilitate the transportation of Caspian oil and natural gas in a safe manner to the world market. Another important project of the East-West Energy Corridor is the Baku-Tbilisi-Erzurum (BTE) Natural Gas Pipeline. The legal framework of this project which will transfer the Azeri gas over Georgia to Turkey is completed and the delivery of Azeri gas is expected to begin in 2006. This also constitutes the first step of the Pipeline Project of the Caspian Pass, which will transport Turkmen gas to Europe. The transportation of Caspian oil and natural gas resources with more than one pipeline will allow European countries to diversify and secure their energy supply. South European Gas Ring project within the framework of the interconnection of natural gas pipelines in Turkey and Greece, will form an important part of the future of Europe's efforts to diversify energy sources. The Intergovernmental Agreement between Turkey and Greece on this subject was signed in February 2003; Natural Gas Sales and Purchase Agreement between DEPA and Botas was signed in December 2003 thus providing Turkey's energy network to that of EU. Turkey is an important energy partner and energy policy of Turkey is consistent with the EU's energy security policy. Energy strategy, constitutes an important area of cooperation between Turkey and the EU[27].

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[26]   http://www.mfa.gov.tr ; 2 Ocak, 2005
[27]   http://www.mfa.gov.tr/MFA_tr/DisPolitika/GenelGorunum/Genel+Gorunum.htm   ;   20 Kasım, 2004

## REFERENCES

Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, syf. 67

Doç.Dr.Kenan Çelik,Cemalettin Kalaycı, "Azeri Petrolünün dünü ve Bugünü", Avrasya Etütleri, TİKA, Sayı 16, 1999, s. 105

I.b.i.d., s.106

I.b.i.d., s.107

I.b.i.d., s.109

I.b.i.d., s.110

I.b.i.d., s.111

I.b.i.d., s.117

I.b.i.d., s. 122

I.b.i.d., s. 119

Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, s. 70

Rainer Freitag-Wirminghaus, "Turkey's Political Role in Central Asia and in the Struggle for New Energy Resources" , Südosteuropa Aktuell, Munchen,Südosteuropa-Gesellschaft, 1999, s. 49

I.b.i.d., s. 54

Doç.Dr.Kenan Çelik,Cemalettin Kalaycı, "Azeri Petrolünün dünü ve Bugünü", Avrasya Etütleri, TİKA, Sayı 16, 1999,s. 118

Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, s. 70

I.b.i.d., s. 76

Doç.Dr.Kenan Çelik,Cemalettin Kalaycı, "Azeri Petrolünün dünü ve Bugünü", Avrasya Etütleri, TİKA, Sayı 16, 1999,s. 115

I.b.i.d., s.115

I.b.i.d., s.116

Yrd.Doç.Dr.Nesrin Sarıahmetoğlu, "Hazar Petrol Boru Hattının Güzergahı ve Güvenliği meselesine Bir Bakış", Avrasya Etütleri, TİKA, Sayı 17, 2000, s. 74

Rainer Freitag-Wirminghaus, "Turkey's Political Role in Central Asia and in the Struggle for New Energy Resources" , Südosteuropa Aktuell, Munchen,Südosteuropa-Gesellschaft, 1999, s. 50

A.Necdet Pamir, "Baku-Ceyhan: Bitmeyen Senfoni", Avsam Analizler, bknz: www.avsam.org.tr

http://www.arkitera.com/haberler/2002/08/22/bakuceyhan.htm

Bakü Tiflis Ceyhan ham petrol transferi için inşa edilmekte olan boru hattı projesine verilen addır.

http://www.ans.az ; Azerbaycan bağımsız ANS Televizyonundaki Ana Haber Bülteninde haber konusundan derlenmiştir. 9 Ocak, 2005 Tarihli ANS TV Ana Haber Bülteni

http://www.mfa.gov.tr ; 2 Ocak, 2005

http://www.mfa.gov.tr/MFA_tr/DisPolitika/GenelGorunum/Genel+Gorunum.htm ; 20 Kasım, 2004

CHAPTER

8

A RESEARCH ON
THE PERCEPTION OF
CROWDFUNDING OF
UNIVERSITY STUDENTS: EGE
UNIVERSITY CASE*

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## 1. INTRODUCTION

Due to the bottlenecks and crises in the economy, liquidity shortages exist in the markets and access to capital is restricted. It is often seen that new investments or projects cannot find the funds they need and those who have excess funds cannot reach the appropriate investment or project. The need for funds should not be considered as necessary only for people who wish to provide an additional financial return. Social enterprises also need social financing. Rapid developments in technology, software and the internet are changing the traditional methods of financing. It can be said that the concept of crowdfunding has emerged as an alternative financing method in the form of funding via the Internet due to the spread of the Internet to the masses. Crowdfunding is the lack of funding needed for the realization of a project or initiative idea from various credit institutions for various reasons and the provision of funds needed through internet platforms that bring together the party in need of funding and the party willing to fund it.

As a direct financing method, it enables large capital to be obtained through small participation through internet platforms and realization of new enterprises or projects. In crowdfunding, entrepreneurs communicate with a large number of individuals over the Internet for the funds they need to implement an idea / project. Crowdfunding is basically the funding of a product or project. There are four models for crowdfunding, whether funding a product or capital funding for a project. These are donation-based crowdfunding, reward-based crowdfunding, debt-based crowdfunding and equity / partnership based crowd funding (Zengin et al., 2017; 23). In addition, these models can be classified as financial models (debt / credit or partnership / shares) and non-financial models (donations or awards) (Sancak, 2016; 101).

The aim of this research is to reveal the perspectives of young people (university students) who may be future crowdfunding investors and financiers. For this purpose, a questionnaire was applied to vocational school and undergraduate students of Ege University. University students' knowledge of crowdfunding, funding model preferences and fields were tried to be determined. In the introduction part of the study, briefly the crowdfunding and the purpose of the study are explained. In the second part, the concept of crowdfunding, its short historical development, crowd funding models and literature review about crowdfunding are given. In the third part, the scope and method of the research is explained and in the fourth part the findings are shared. In the conclusion part, the current situation of the university students' perception on crowdfunding, predictions about

future and research suggestions for those who will work in this field are included.

## 2. HISTORY OF CROWDFUNDING, CROWDFUNDING CONCEPT AND CROWDFUNDING MODELS

### 2.1. History of Crowdfunding

Due to the decrease in the confidence in the banks with the 2008 global economic crisis, crowdfunding platforms and parties wishing to benefit from crowdfunding via the internet have emerged. But the method of crowdfunding is to do something old in a new way. It is likened to the method of financing the work of societies in 3000 BC. Unlike in the past, crowdfunding uses the internet for capital formation. Before the emergence of banks and financial institutions, wealthy families provided loans to individuals to finance everything from trade to infrastructure in societies. A debt instrument has been created as a financial instrument and the interest rate has changed according to how well they know each other and how much capital is needed. The penalty for not repaying the debt was very severe. One of the first examples of crowdfunding was the use of Alexander Pope's Homer in 1713 to translate the ancient Greek poem Iliad, consisting of 15,693 lines. In Photo 1, the first edition of the translation of Homer's Iliad by Alexander Pope shows the contributors to the translation (Kickstarter, 2019).

**Photo 1.** *The first edition of the translation of Homer's Iliad by Alexander Pope*



As can be seen from Photo 1, 750 people who contributed to Alexander Pope's Iliad translation by giving two gold guinea were listed in the first edition of the book.

In 1783, Mozart used a similar model to present his newly composed piano concerto in the Vienna concert hall. Mozart requested donations to present his concerto and wrote the names of the donors to the manuscript invitation of his concerto (Kickstarter, 2019).

*Photo 2. Concerto Manuscript with the Names of the Supporters Donating to Present Mozart's Concerto*



In 1876, crowdfunding was also used to finance the Statue of Liberty, the most recognized monument in the world. French citizens paid for the statue and American citizens paid for the base of the statue. Meetings, theater performances, art auctions and campaigns were organized in both countries to raise the required funds.

Frédéric Auguste Bartholdi, the architect of the Statue of Liberty, offered to give all the donors a miniature of the statue with the donor's name on it. This proposal is similar to the reward system used to raise funds in today's crowdfunding (Dresner, 2014; 4).

**Photo 3.** *Newspaper Announcement for the Donation Campaign for the Construction of the Pedestal of the Statue of Liberty*

In 1885, Pulitzer published his donation project in his newspaper and announced that he would give a 6-inch statue of liberty to anyone who donated $ 1. A total of $ 102,006 was collected from 120,000 people (Kickstarter, 2019). Although it is difficult to relate the events of that time to the present, there are examples of institutions and icons that emerged in America in the late nineteenth and early twentieth centuries thanks to the masses. Before the Great Depression in the US, banks were established to finance infrastructure investments and government activities. In order to adapt to the change in agriculture with the industrial revolution, farmers were forced to take out loans for machine purchases. Businesses in different sectors have also faced difficulty in accessing capital due to this shift in technology. Construction and credit cooperatives provided capital to individuals and companies. People invested their savings in cooperatives, and when the union had enough money, it financed the activities of its members. However, these cooperatives were able to serve small groups or communities and did not have as many different types of services as banks.

The historical development of crowdfunding can be illustrated in a timeline from the Great Depression in 1929 to the Jumpstart Our Business Startups (JOBS) law in 2012. The major events in this chart were the Great Depression in 1929, the establishment of the American Capital Market in 1933, the Law in 1934, the Regulation D / Accredited Investor in 1982, the Worldcom and Enron company scandals in 2001, the Sarbanes-Oxley (SOX) Act in 2002, the The establishment of Kiva, the establishment of Kiva in 2008, the launch of the Kickstarter platform in 2009, and the JOBS law in 2012, known as the crowdfunding law (Dresner, 2014; 12).

### 2.2. Crowdfunding Concept

Definitions in the literature regarding the concept of crowdfunding are given in Table 1 (Atsan and Erdoğan, 2015; 301).

**Table 1.** *Definitions of Crowdfunding in Literature*

| Author(s) | Year | Definition |
|---|---|---|
| Kleeman, Voß and Rieder | 2008 | It occurs when a profit-making firm obtains certain work required for the production or sale of its product by making use of external sources through an open call to the public (the masses) via the Internet. Goal; It is the voluntary contribution of the people with a unobtrusive response to the production process of the firm or with a very humble response to the value provided to the firm. |
| Lambert and Schwienbacher; Schwienbacher and Larralde; Bellaflamme, Lambert and Schwienbacher | Marc 2010 Sptember 2010 2014 | Crowdfunding is an open call for funding the initiatives via the Internet for specific purposes as a donor, reward, lending or shareholder. |
| Ordanini et al. | 2011 | Crowdfunding is an attempt to raise funds for new projects offered by individuals by collecting small-medium-sized investment amounts from many people. |
| Giudici, Nava, Lamastra and Verecondo | 2012 | A large group of people invests capital in a project using a website or other online tools. |
| Ahlers, Cumming, Günther and Schweizer | 2012 | Crowdfunding is a form of creating a fund in which a group of people usually make very small individual contributions to support a particular purpose. |
| Ergen, Lau and Bilginoğlu | 2013 | Crodfunding is the ability of many small investors to come together, waiting for their investment in a project of their choice, or sometimes partnering in a form that requires a symbolic response, pre-ordering in product development, or making a donation of some kind to provide capital to entrepreneurs. |
| Wash | 2013 | Crowdfunding is the activity of requesting resources through open calls from a large number of supporters to realize a new idea. |
| Valanciene and Jegeleviciute | 2013 | Crowdfunding is a method of establishing a connection between entrepreneurs who want to acquire capital and those who are willing to invest in small amounts, creating a capital resource that develops through internet-based intermediaries. |
| Lehner | 2013 | Crowdfunding is the provision of small amounts of money to support a project or initiative by a broad spectrum of audiences called "the mass". |
| Joenssen, Michaelis, and Müllerleile | 2014 | Crowdfunding is the initiation of commercial or non-commercial projects by individuals or organizations with a public call to raise funds, evaluate market potential and build relationships with customers. |

Within the scope of these definitions, crowdfunding can be defined as a new financial resource creation system that brings together interested groups on the online platform to find the amount of financing needed for the realization of ideas / project initiatives and enables them to obtain the amount of financing. Crowdfunding, which is expressed as a new method in financing business ideas, can be confused with angel investment and venture capital. The affluent individuals' shareholding or convertible lending through shares brings together angel investment and surplus individuals and investors express venture capital.

### 2.3. Crowdfunding Models

Crowdfunding models can be classified into three categories: donation, debt and equity. Donation-based crowdfunding can be divided into donations and awards, debt-based crowdfunding can be divided into donable credit, pre-sale and traditional credit, equity-based crowdfunding investor and entrepreneur. In this research, it is classified as models based on donations, awards, debts and equity (Paschen, 2017; 180).

The donation-based crowdfunding model can be divided into two as donations or reward-based donations. There is no risk for the donor only in donation based crowdfunding. Donors do not receive any return on securities. Entrepreneurs cannot raise a significant amount of capital. In the award-based donation model, there are risks to donors due to incidents such as fraud. There is no real financial return. The potential return is small. No securities are acquired. It is difficult for many entrepreneurs to increase capital without a product.

The investment-based crowdfunding model is divided into debt-based and equity-based models. In equity funding based on equity, profit is shared when the enterprise makes a profit. There is no limit for financial gain. It can attract a large number of investors. Of course there is a risk of losing the investor. Owners of capital are liable to creditors in case of bankruptcy. Securities laws regarding crowdfunding investment can be complex. Debt-based crowdfunding is understood as a predetermined rate of return between the lender and the borrower. Lenders take precedence over capital owners in case of bankruptcy of the borrower (The World Bank, 2013; 20).

### 2.3.1. Donation Based Crowdfunding

In the donation-based crowdfunding model, fund transfers are accepted as donations since they do not provide any material and / or intangible returns or benefits to the project funders in return for the funds provided by the investors. Generally, this crowdfunding model includes non-profit and philanthropic social, environmental projects. Thus, these projects can

be implemented faster. The most important risk here is that the donation, charity and charity projects are unrealistic and vulnerable. This risk can be mitigated through a preliminary review of the mass funding platforms. (Paschen, 2017; 181).

### 2.3.2. Award Based Crowdfunding

In the award-based crowdfunding model, it is promised to offer products / services with material / intangible value predetermined by the project owner based on the size of the funds provided by the investors. These promises are a kind of incentive to reach the funds needed for the project. Non-financial rewards are often offered to stimulate the motivation of project contributors to earn rewards. For example, if a product with a project output is realized when the project is realized, it may be given to the donor of the product free of charge, giving a thank you letter, announcing the names of the donors from the product or website or giving the name of the product.

Award-winning crowdfunding to fund a new product is increasingly used for projects involving the arts, design, entertainment and technology sectors. For example, although "Extraordinary People" film needed 20.000TL for editing and post production, 39.500TL was provided with crowdfunding. The contributors were given invitations to the gala, postcards, photographs from the set, thanks to the website and the title of co-producer (Tekeoğlu, 2015; 301).

### 2.3.3. Debt Based Crowdfunding

In the debt-based crowdfunding model, the project in need of funding determines a maturity and interest according to the amount of funds through the crowdfunding platforms and tries to provide funds as loans. The investor who invests in the project receives a return based on the scope, maturity and interest rate of the project. Debt-based crowdfunding can be in the form of lending from person to person (P2P) or from person to enterprise (P2B). Although it is similar to borrowing from the bank, the required funds are demanded from individuals (Ziegler et al., 2017; 21).

### 2.3.4. Equity / Partnership Based Crowdfunding

In the partnership-based crowdfunding model, the project is introduced through crowdfunding platforms and funds are invested as share-based investment. When the project reaches the amount of funds it needs in the targeted time, this fund is given from the crowdfunding platform to the project owner company as paid-in capital.

Therefore, investors become partners to the company for the amount they fund. It is similar to the traditional share investment, but allows multiple small investors to become partners in companies that are not traded in organized markets without intermediaries. It is an alternative method of finance, usually created by enabling the masses to participate in equity capital in the financing of products that are likely to gain new start-ups and commercial innovation. While issuing equity capital depends on many and long legal regulations, the rapid growth in equity based crowdfunding and the newly established enterprises are taken into consideration to reduce the legal regulations regarding this method of financing (Hornuf and Schwienbacher, 2017; 579-580).

## 3. SCOPE AND METHODOLOGY

### 3.1. Scope

There is no research on the awareness of crowdfunding in Turkey, which is an alternative funding method that has increased awareness around the world and whose economic size is expected to increase.

This research was conducted to fill this gap. In this research, it was emphasized that new ideas and projects emerged predominantly from young population. Ege University vocational and undergraduate students are included in the study.

### 3.2. Methodology

In this research, a 5-point Likert-scale questionnaire was applied to determine the perception and awareness about crowdfunding among vocational and undergraduate students at Ege University.

With the questionnaire applied, it was tried to put forward the awareness of crowdfunding method, its usage and which sectors can be used with which crowdfunding model.

## 4. FINDINGS

Information about the vocational and undergraduate students participating in the survey is given in Table 2. These information is related with gender and age of participants who accepted to involve to survey.

**Table 2.** *Information about Vocational and Undergraduate Students Participating in the Survey*

| | Gender | | Total | Age | | |
|---|---|---|---|---|---|---|
| | Man | Woman | | 18-24 | 25-31 | 32-38 |
| Vocational | 178 | 292 | 470 | 466 | 4 | - |
| Undergraduate | 154 | 150 | 304 | 231 | 71 | 2 |
| Total | 332 | 442 | 774 | 697 | 75 | 2 |

The situation of knowing the crowdfunding method is given in Table 3.

**Table 3.** *Vocational and Undergraduate Students' Knowledge of Crowdfunding Method*

| | Do you know crowdfunding? | | Total |
|---|---|---|---|
| | Yes | No | |
| Vocational | 12 | 458 | 470 |
| Undergraduate | 22 | 282 | 304 |
| Total | 34 | 740 | 774 |

Information on crowdfunding and where vocational and undergraduate students learned, it is given in Table 4.

**Table 4.** *Sources of Vocational and Undergraduate Students About Learning the Concept of Crowdfunding*

| | **Where did you learn crowdfunding?** | | | | | |
|---|---|---|---|---|---|---|
| | Newspaper-Magazine | Internet | Social media | Friends | Other | Total |
| Vocational | 2 | 8 | 2 | 0 | 0 | 12 |
| Undergraduate | 2 | 10 | 0 | 6 | 4 | 22 |
| Total | 4 | 18 | 2 | 6 | 4 | 34 |

The results of the 5-point Likert scale survey that applied to vocational and undergraduate student are given in Table 5.

**Table 5.** *Survey Results According to 5-Point Likert Scale*

| | Questions / Judgments | Vocational (V) / Undergraduate (U) | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree | Total |
|---|---|---|---|---|---|---|---|---|
| 1 | The realization of a project is related to the number of participants. | V | 40 | 60 | 38 | 222 | 110 | 470 |
| | | U | 12 | 68 | 32 | 116 | 76 | 304 |
| 2 | The Internet is an adequate platform for the promotion of the project. | V | 26 | 166 | 46 | 180 | 52 | 470 |
| | | U | 12 | 122 | 32 | 110 | 28 | 304 |
| 3 | Institutions recognized on the Internet are required to act as intermediaries to fund the project. | V | 16 | 14 | 122 | 218 | 100 | 470 |
| | | U | 8 | 26 | 70 | 148 | 52 | 304 |
| 4 | Public institutions and organizations need to establish sufficient trust. | V | 26 | 8 | 34 | 162 | 240 | 470 |
| | | U | 12 | 14 | 24 | 140 | 114 | 304 |
| 5 | I support the projects of people and institutions I know and know. | V | 16 | 40 | 64 | 224 | 126 | 470 |
| | | U | 8 | 28 | 40 | 170 | 58 | 304 |
| 6 | I support the people and institutions that I believe in the outputs of the project. | V | 12 | 28 | 72 | 224 | 134 | 470 |
| | | U | 8 | 12 | 22 | 186 | 76 | 304 |
| 7 | I want to support my project from people and institutions which I know. | V | 20 | 14 | 46 | 206 | 184 | 470 |
| | | U | 12 | 14 | 26 | 176 | 76 | 304 |
| 8 | I would like support from people and institutions who will believe in the outputs of my project. | V | 22 | 14 | 42 | 200 | 192 | 470 |
| | | U | 10 | 16 | 20 | 164 | 94 | 304 |
| 9 | I'd rather fund my project for donation. | V | 18 | 40 | 172 | 174 | 66 | 470 |
| | | U | 12 | 26 | 126 | 98 | 42 | 304 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10 | I support the projects in exchange for donations | **V** | 16 | 34 | 134 | 212 | 74 | 470 |
| | | **U** | 8 | 36 | 74 | 146 | 40 | 304 |
| 11 | I prefer to fund my project with award-based. | **V** | 14 | 36 | 182 | 178 | 60 | 470 |
| | | **U** | 4 | 38 | 86 | 122 | 54 | 304 |
| 12 | I support the award-based projects. | **V** | 18 | 32 | 146 | 194 | 80 | 470 |
| | | **U** | 10 | 32 | 74 | 142 | 46 | 304 |
| 13 | I borrow funds (with interest) for my projects. | **V** | 78 | 124 | 130 | 102 | 36 | 470 |
| | | **U** | 28 | 60 | 84 | 108 | 24 | 304 |
| 14 | I support the projects by lending (principal + interest). | **V** | 54 | 90 | 148 | 130 | 48 | 470 |
| | | **U** | 22 | 68 | 100 | 88 | 26 | 304 |
| 15 | I get a partner and fund my projects. | **V** | 22 | 42 | 116 | 238 | 52 | 470 |
| | | **U** | 8 | 34 | 78 | 142 | 42 | 304 |
| 16 | I support the projects as a partner. | **V** | 20 | 26 | 90 | 276 | 58 | 470 |
| | | **U** | 10 | 36 | 58 | 154 | 46 | 304 |
| 17 | I want support for the technological projects. | **V** | 18 | 14 | 54 | 226 | 158 | 470 |
| | | **U** | 14 | 12 | 36 | 158 | 84 | 304 |
| 18 | I support the technological projects. | **V** | 22 | 12 | 52 | 246 | 138 | 470 |
| | | **U** | 10 | 16 | 40 | 152 | 86 | 304 |
| 19 | I want support for the green projects. | **V** | 32 | 10 | 34 | 200 | 194 | 470 |
| | | **U** | 10 | 10 | 24 | 146 | 114 | 304 |
| 20 | I support the environmental projects. | **V** | 30 | 8 | 34 | 200 | 198 | 470 |
| | | **U** | 10 | 14 | 26 | 150 | 104 | 304 |
| 21 | I want support for the agricultural projects. | **V** | 28 | 28 | 100 | 170 | 144 | 470 |
| | | **U** | 12 | 20 | 64 | 116 | 92 | 304 |
| 22 | I support the agricultural projects. | **V** | 28 | 16 | 98 | 176 | 152 | 470 |
| | | **U** | 10 | 22 | 48 | 124 | 100 | 304 |
| 23 | I want support for Culture & Art (Film, Video, Literature, Photography, Music etc.) projects. | **V** | 22 | 16 | 54 | 170 | 208 | 470 |
| | | **U** | 16 | 18 | 34 | 148 | 88 | 304 |
| 24 | I support the Culture & Art (Film, Video, Literature, Photography, Music, etc.) projects. | **V** | 22 | 20 | 48 | 158 | 222 | 470 |
| | | **U** | 14 | 8 | 40 | 154 | 88 | 304 |

## CONCLUDES

There is no research on the awareness and perception of crowdfunding in Turkey, which is an alternative funding method that has increased awareness worldwide and is expected to increase in economic size. This research was conducted to fill this gap. In this research, it was tried to determine the perceptions and awareness of university students, especially with regard to the idea that new ideas and projects emerged mainly from the young population. A total of 774 students, 470 from the vocational degree programs of Ege University and 304 from undergraduate departments, were included in the study. The recognition of crowdfunding is very low among the students in the research. The method of those who know the concept of crowdfunding is primarily by the internet. It is determined that the crowdfunding is known and used for funding in any project and not in vocational degree programs, but it is low level in undergraduate departments and it is preferred in short-term funds in overseas crowdfunding platforms in project types in agriculture, education and environment subjects. Donation or donation and reward model was preferred in these types of projects as crowdfunding model. The targeted total funds could not be reached but two projects reached the target fund amount and succeeded. Funding by the majority, which can be regarded as the basic philosophy of crowd funding, is considered important for the realization of the project by both vocational and undergraduate students in connection with the number of participants. There is no conclusive judgment that the project is sufficient for the majority of the project to be promoted by the internet. The fact that the institutions that will mediate the projects are recognized institutions on the internet attaches more importance to vocational students but not to the same extent for undergraduate students. It has been found that it is very important for the public institutions to make arrangements to ensure sufficient trust in crowdfunding in both groups. While the undergraduate students give more importance to the projects of recognized or known people / institutions in the projects to be funded, the perception of the vocational students is less important. It also shows that the project output is important for the recognition outside the recognized and well known persons / institutions. It is understood that the students will seek support from their familiar and familiar people and institutions for their own projects. In addition to this judgment, it can be said that people and institutions who believe in the output of the project are also important in connection.

When the preferences among the crowdfunding models are analyzed, it is concluded that they prefer funding less than donation projects and they find it more important to support them in return for donations. Here, undergraduate students pay more attention to donation support. The award-based model is similar. They are indifferent in borrowing or lending funding and

seeking support. It can be said that the most preferred model compared to all models is to ask for or support the projects by taking partners. When the project preferences of university students in crowdfunding are examined, it is seen that the most important type of project is culture and art, technology, environment and agriculture projects respectively.

As a result, since the public funding model, which is becoming increasingly popular abroad as an alternative financing method, is very low among university students, studies (meetings, seminars, etc.) should be conducted in order to introduce the method. The realization of the project was related to the number of participants and it was seen that more importance was given to the regulatory aspect of the public institutions to ensure trust. It would be appropriate for the public to establish the legal structure related to the introduction of the method, platforms, funding models and funding processes. It is seen that overseas universities have crowdfunding platforms on a university basis. This approach may also serve as a model for Turkish universities. Therefore, the method is not limited to specific platforms. For this, cooperation with existing platforms can be established or universities can create their own platforms. Thus, university students can have the opportunity to introduce and fund their new ideas / projects. In terms of project types, culture and art projects take the lead in their preferences, the second choice is technological projects and the third one is agricultural and environmental projects. For culture and art (film, music, painting, travel, etc.), agricultural and environmental projects, donation and reward models can be used, and for technological projects, the implementation of a partnership model is considered to be appropriate after the necessary legal arrangements.

# REFERENCES

Atsan, N., Erdoğan, E.O. (2015). Girişimciler İçin Alternatif Bir Finansman Yöntemi: Kitlesel Fonlama (Crowdfunding). Eskişehir Osmangazi Üniversitesi İİBF Dergisi, 10(1), Nisan, 297-320.

Cambridge Centre for Alternative Finance. (2017). Entrenching Innovation The 4th Alternative Finance Industry Report. https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/entrenching-innovation/#.Wxhs0UiFPb0

Çubukçu, C. (2017). Kitlesel Fonlama: Türkiye'deki Kitlesel Fonlama Platformları Üzerinden Bir Değerlendirme. Girişimcilik ve İnovasyon Yönetimi Dergisi, Cilt:6, Sayı:2, 155-172.

Dresner, S. (2014). Crowdfunding A Guide To Raising Capital On The Internet. Bloomberg Press, Wiley&Sons Inc.

EBRD. (2018). Support with the Crowdfunding Secondary Legislation in Turkey. https://www.ebrd.com/cs/Satellite?c=Content&cid=1395272519840&d=-Mobile&pagename=EBRD%2FContent%2FContentLayout

Ergen, M., Lau, J., Bilginoğlu, K. (2013). Dağıtık girişimci sermayesi: Kitle fonlaması", Bilim, Sanayi ve Teknoloji Bakanlığı'nın 2013 yılında düzenlediği 3. Sanayi Şurası, Ankara, Türkiye, http://girisimcilik.mustafaergen.com/uploads/1/0/5/9/10590997/dagitikgirisimcisermayesi-2.pdf

Erkılıç, H., Toprak, A.G. (2013). Kitlesel Fonlamanın Türkiye'de Belgesel Sinema Üzerindeki Olası Etkileri. Yeni Medya Çalışmaları: Kuram, Yöntem, Uygulama ve Siyasa I. Ulusal Kongresi, 7-8 Mayıs, Kocaeli, 292-306.

Fettahoğlu, S., Khusayan, S. (2017). Yeni Finansman Olanağı: Kitle Fonlama. Uşak Üniversitesi Sosyal Bilimler Dergisi, Cilt:10, Sayı:4, Aralık, 497-521.

Hornuf, L., Schwienbacher, A. (2017). Should Securities Regulation Promote Equity Crowdfunding?. Small Business Economics, Vol.9, 3, 579-593.

Kalkınma Bakanlığı. (2017). Onbirinci Kalkınma Planı, Kamuda Kurumsal Yönetimde Yeni Yaklaşımlar Özel İhtisas Komisyonu Ön Raporu, http://onbirinciplan.gov.tr/wp-content/uploads/2018/01/Kamuda-Kurumsal-Y%C3%B6netimde-Yeni-Yakla%C5%9F%C4%B1mlar-%C3%96zel-%C4%B0htisas-Komisyonu-%C3%96n-Raporu.pdf

Kickstarter(2019). https://www.kickstarter.com/blog/kickstarter-before-kickstarter

Paschen, J. (2017). Choose Wisely: Crowdfunding Through The Stages Of The Startup Life Cycle. Business Horizons, 60, 179-188.

Sancak, İ.E. (2016). Applicability and Readiness of Crowdfunding in Turkey. International Journal of Business and Social Science, Vol.7, No.1, January, 99-110.

Short, J.C., Ketchen Jr., D.J., McKenny, A.F.,Allison, T.H., Ireland, R.D. (2017). Research on Crowdfunding: Reviewing the (Very Recent) Past and Cele-

brating the Present. Entrepreneurship Theory and Practice, 41 (2), March, 149-160.

Tekeoğlu, N. (2015). Kitlesel Fonlama ile Alternatif Film Finansmanı Oluşturma ve Bir Film Analizi: Sıra Dışı İnsanlar. International Journal of Social Science, Number.38, Autumn II, 295-302.

The World Bank. (2013). Crowdfunding's Potential For The Developing World. infoDev, Finance and Private Sector Development Department, Washington, DC: World Bank. https://www.infodev.org/infodev-files/wb_crowdfundingreport-v12.pdf

Valenciene, L., Jegeleviciute, S. (2013). Valuation of Crowdfunding: Benefits and Drawbacks. Economics and Management, 18(1), 39-48.

Zengin, S., Yüksel, S., Kartal, M.T. (2017). Kitle Fonlaması Sisteminin Türkiye'ye Faydaları. Bankacılık ve Sermaye Piyasası Araştırmaları Dergisi, Cilt:1, Sayı:2, 22-32.

Ziegler, T., Reedy, E.J., Le, A., Zhang, B., Kroszner, R.S., Garvay, K. (2017). The (2nd) Americas Alternative Finance Industry Report Hitting Stride. Cambridge Centre for Alternative Finance, https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/hitting-stride/#. Wxhg7EiFPb0

Ziegler, T., Shneor, R., Garvey, K., Wenzlaff, K., Yerolemou, N., Hao, R., Zhang, B. (2018). Expanding Horizons The 3rd European Alternative Finance Industry Report, Cambridge Centre for Alternative Finance, https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/expanding-horizons/#.WxhY2EiFPb0

# DETERMINING HERD PSYCHOLOGY WITH BINARY QUALITATIVE PREFERENCE MODELS: TWITTER CASE

CHAPTER 9

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## 1. INTRODUCTION

Nowadays, social media platforms are of great importance because of the high rate of return, unlike traditional media. This platform has an interactive structure that provides opportunities for both consumers consuming and producing content for many reasons such as politics, sports, arts, economics and so on. The communication that has changed with social media tools has brought important innovations especially in the field of economy. Through the new channels brought into communication, it is seen that individuals are not only aiming to maximize benefit, especially when making decisions. This situation does not conform to the models in traditional economic theory. Behavioral finance has gained popularity as a result of differentiation of individuals in terms of psychological tendencies and supported by studies that may be especially in herd psychology in some cases and this popular-ity continues in both theory and practice. In line with these situations, it is also possible to conduct financial research on social media platforms where individuals are productive, have high social interaction and are prone to the formation of herd psychology as a result of the exchange of ideas. The behavioral finance field has gained popularity as a result of differentiation of individuals in terms of psychological tendencies, and in particular, cases supported by studies in herd psychology. Herd psychological is evident when people do what others are doing instead of using their own informa-tion or making independent decisions. As a result of any changes occurring in financial markets, social interaction between individuals will be directed to move with herd psychology.

## 2. LITERATURE

Kahneman and Tversky's "Prospect Theory: An Analysis of Decision Under" study in 1979 was accepted as the beginning of the field of behavioral finance and these two scientists are considered as founders. According to the Expectation Theory, investors are more sensitive to losses than earnings. Therefore, individuals who tend to avoid loss refer to a pre-viously determined result in the assessment of the current situation. In this study, it is revealed that the basic assumptions of the Effective Market Hy-pothesis are violated. Below are the studies in which this field is researched on social media platforms, respectively.

In 2011, Bollen, Mao and Zeng's Twitter Mood Twitter Mood Stock Market Forecasts "study analyzed tweets recorded on Twitter between February 28 - December 19, 2008. In this study, sentences containing clear expressions of moods such as " I feel (I feel)", "I don't feel (I don't feel)" were collected.

In the thesis titled "Twitter and Stock Returns" written by Blom in 2013, the effect of tweets (contents) obtained from Twitter on stocks was examined and as a result it was concluded that the effects were emotional.

In 2014, "Local Twitter Activity and Stock Returns conducted by Baik, Cao, Choi and Kim, the information role of social media in the stock markets was examined and it was seen that the sound in the tweet of local Twitter users predicted future stock returns. It was also stated that this un-predictability is not available for non-local users and that the positive rela-tionship between tone and stock performance is more pronounced in firms with high information asymmetry.

In a study by Ranco, Aleksovski, Caldarelli, Grčar and Mozetič called "The Effects of Twitter on Stock Price Returns", the relationship between Twitter and financial markets was examined and it was seen that Twitter contents expressed the cumulative aspect of abnormal return of emotional polarity. Here, cumulative abnormal returns were statistically significant for several days after the event.

In a study made by Peatfield in 2016, "Brexit, Twitter and Behavioral Finance", Bretix referendum votes were examined. Brexit's vote on the departure of Britain from the European Union found that Twitter had less influence on investors in the context of behavioral finance.

In 2017, Bartov, Faurel and Mohanram conducted the study "Can Twitter Help Estimate Firm Level Earnings and Stock Returns?, it was found that total ideas in individual tweets should be taken into consideration when evaluating future expectations and values of stock.

## 3. METHOD

Qualitative preference models vary according to the number of levels of the dependent variable. Binary-state models are in fact a special case of multi-state models. The three commonly used binary preference models are Logit, Probit and Gompit. Logit models are preferred because the lo-gistic function has a change in the range of 0-1. The model allows the risk to be estimated as any value between 01. In short, the risk in this function is not above 1 or below 0 (Hosmer and Lemeshow, 2000: 1043-1049). Probit model, the probability distribu-tion of is obtained under the assumption of normality. In the Probit model, the decision of the first individual is assumed to be based on an unobservable benefit index. In order to estimate the probit model using the cumulative normal distribution function, the function must be linear-ized (Cramer, 2003: 9). Gompit models distribution is strongly negatively skewed, approaching 0 very slowly for small values of Z, and 1 even more rapidly than the Probit for large values of Z. The Gompit model is also known as the extreme value model (Golet, 2014: 285). The characteristics of the three models are given in **Table.1**.

**Table.1:** *Binary Qoualitative Choice Models*

| Model | $P(Y = 1)$ | Cumulative Distribution Function (CDF) | Mean | Variance |
|-------|-----------|----------------------------------------|------|----------|
| Logit | $1/[1 + e^{-I(x)}]$ | Logistic | 0 | $p^2/3$ |
| Probit | $\Phi[I(x)]$ | Standard Normal | 0 | 1 |
| Gompit | $1 - exp[-e^{I(x)}]$ | Gompertz | $-\gamma$ | $p^2/6$ |

**Source:** Compiled by the authors.

In these models, coefficients are not interpreted directly, marginal effects are calculated and interpreted.

## 4. FINDINGS

In this study, the content analysis approach used in the process of data collection. The evaluation of Twitter content by similar features is made possible by this data collection technique. The psychological tendency determined by the categories was examined by using binary qualitative choice models. The analyses were performed with logit, probit and gompit models and as a result of some tests and criteria applied, it was decided that the most suitable model is logit model. The population of the study is the use of Twitter during April 2018, and the sample consists of tweets shared under #Borsa between 01.04.2018 - 30.04.2018. The main psychology category was created by dividing the obtained content into subcategories of social interaction and speculative interpretation. In the model, a total of 4000 content, including 585 in the context of social interaction and 4585 in the context of speculative interpretation, were analyzed. At this stage, content analysis was used based on the literature on the psycho-logical tendencies of investors. In this context, tweets containing the codes specified in the data set are listed according to the text recall operation in the analysis menu of the MAXQDA program. Then, the results of the esti-mated models are given in **Table.2**.

**Table.2:** *The Results of the Estimated Models*

| Models / Variables | Logit Model | Probit Model | Gombit Model |
|--------------------|-------------|--------------|--------------|
| Number of Retweets | + | + | + |
| Number of Favorites | - | - | - |
| Number of Total Tweets | . | . | . |
| User Information | . | . | . |
| Dollar | - | - | - |
| Euro | - | - | - |
| Bitcoin | + | + | + |
| Gold | + | + | . |
| BIST – 100 | . | . | . |
| BIST National | . | . | . |
| BIST All – 100 | . | . | . |
| BIST 100-30 | . | . | - |

(**Note**: In the table, "." means that the variable is not interpreted because it is statistically insignificant in the category, "-" means that the variable decreases the probability of psychological tendency and "+" means that the variable increases the probability of psychological tendency.)

After estimating logit, probit and gompit models respectively, it was de-cided that the most appropriate model was the logit model after performing hypothesis tests and using information criteria. The results of the link test to test the validity of the model are given in **Table.3**.

**Table.3:** *Link Test*

| Logistic regression | | | | Number of obs | = | 4585 |
|---|---|---|---|---|---|---|
| | | | | LR chi2(2) | = | 34.98 |
| | | | | Prob > chi2 | = | 0.0000 |
| Log likelihood = -1640.3979 | | | | Pseudo R2 | = | 0.0106 |

| SürüPsikol~i | Coef. | Robust Std. Err. | z | P>|z| | [95% Conf. Interval] | |
|---|---|---|---|---|---|---|
| _hat | .2533279 | .0560149 | 4.52 | 0.000 | .1435408 | .3631151 |
| _hatsq | .0270294 | .0193807 | 1.39 | 0.163 | -.010956 | .0650148 |
| _cons | -1.964459 | .0530296 | -37.04 | 0.000 | -2.068395 | -1.860523 |

In **Table.3**, the "_*hat*" value of the model is statistically significant (0.000 <0.05) indicating that the model is good. At the same time, the "_ *hatsq*" value is statistically insignificant (0.163> 0.05), which means that the model is correctly specified, there is no model identification error. For this reason, the logit model is continued in the study of herd psychology. In order to determine whether there is a multicollinearity problem in the model, the VIF results calculated by the variables are given in **Table.4**.

**Table.4:** *Multicollinearity Criteria - VIF*

| Variable | VIF | 1/VIF |
|---|---|---|
| RetweetSay~ı | 2.43 | 0.411401 |
| FavoriSayısı | 2.43 | 0.411988 |
| Bitcoin | 2.06 | 0.485207 |
| Altın | 2.04 | 0.489015 |
| Dolar | 1.80 | 0.554121 |
| Euro | 1.68 | 0.596273 |
| Mean VIF | 2.07 | |

**Table.4** shows that the variance inflation factor of any independent variable is 10 or higher. As a result, it was concluded that there is no multicollinearity between the variables in the model. The results of the goodness of fit test according to the Pearson $\chi 2$ statistics applied to the estimated model are given in **Table.5**.

**Table.5:** *Model Goodness of Fit Test*

```
Logistic model for SürüPsikolojisi, goodness-of-fit test

        number of observations =        4585
  number of covariate patterns =        1702
          Pearson chi2(1697) =        1964.15
                Prob > chi2 =          0.0632
```

Since the probability value of Pearson statistics is greater than 0.05 (0.0632>0.05), it is concluded that the fit of the established model is good. In addition, all values of the model are given in **Table.6** for the purpose of examining the goodness of fit of the model with information criteria.

**Table.6:** *Model Information Criteria Summary Table*

```
Measures of Fit for logit of SürüPsikolojisi

Log-Lik Intercept Only:   -1705.287   Log-Lik Full Model:    -1461.642
D(4585):                   2923.284   LR(5):                   487.290
                                      Prob > LR:                 0.000
McFadden's R2:                0.143   McFadden's Adj R2:         0.139
Maximum Likelihood R2:        0.093   Cragg & Uhler's R2:        0.093
McKelvey and Zavoina's R2:    0.971   Efron's R2:                0.174
Variance of y*:             113.842   Variance of error:         3.290
Count R2:                     0.911   Adj Count R2:              0.177
AIC:                          0.589   AIC*n:                  2701.565
BIC:                     -39440.324   BIC':                   -444.722
```

The fact that the BIC value has a very high negative value and that the AIC value is a low value is consistent with the results obtained by Pearson 2 statistics. In addition to this, the classification table which is formed in order to see the success of the estimated model is given in **Table.7**, and visual aspects of this classification table is given in **Figure.1**.

**Table.7:** *Classification Table*

```
Logistic model for SürüPsikolojisi

                    ──── True ────
Classified     |      D          ~D          Total

     +              143           3            146
     -              395         4044           4439

   Total    |      538         4047           4585

Classified + if predicted Pr(D) >= .5
True D defined as SürüPsikolojisi != 0

Sensitivity                    Pr( +| D)    26.58%
Specificity                    Pr( -|~D)    99.93%
Positive predictive value      Pr( D| +)    97.95%
Negative predictive value      Pr(~D| -)    91.10%

False + rate for true ~D       Pr( +|~D)     0.07%
False - rate for true D        Pr( -| D)    73.42%
False + rate for classified +  Pr(~D| +)     2.05%
False - rate for classified -  Pr( D| -)     8.90%

Correctly classified                        91.32%
```
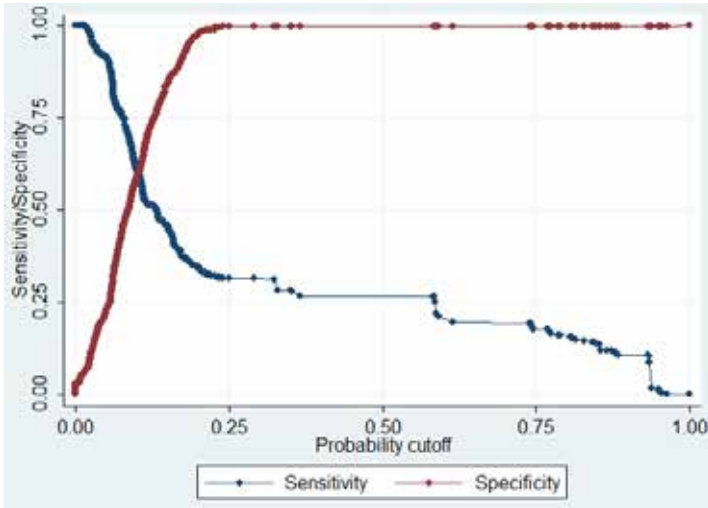
**Figure.1:** *Visual of the Classification Table*

It is seen that the overall success of the model established in **Table.7** is 91.32%. The number of correctly identified observations is 4187 and the number of incorrect observations is 398. In the case of social interaction (Y=1), the proportion of correctly observed observations is 26.58%, whereas in the case of speculative interpretation (Y = 0), the proportion of correctly identified observations is 99.93%. This is seen in the graph as the explan-atory variables selected, the speculative interpretation of the situation or the speculative interpretation variable, it is thought to have more units than the social interaction variable. ROC curve of binary logit model is given in **Figure-2**.
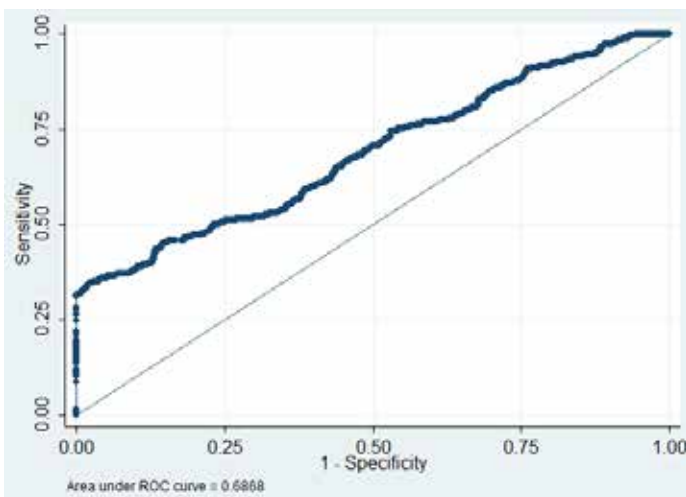


**Figure.2:** *Model's ROC Curve*

In the graph, the area under approximately 0.69 curves shows the acceptable separation for the model. As a result, the model has a good prediction curve with 68.68%. Since the estimated binary logit model provides all the assumptions, it was decided that model is suitable good model that can be used in the estimation process, and then the marginal effects for the model were calculated and interpreted.

$$Y_{HerdPsychology} = 0.000013 \cdot Number\ of\ Retweets - 0.0002611 \cdot Number\ of\ Favorites - 0.0001012 \cdot Dollar - 0.0010617 \cdot Euro + 0.0000109 \cdot Bitcoin + 0.0000196 \cdot Gold \tag{1}$$

According to the results of the binary qualitative preference model *(1)* for the tendency of herd psychology, the 1% increase in Dollar and Euro decreased the social interaction tendencies of the investors, while the 1% increase in Bitcoin and Gold increased the social interaction tendencies of the investors. This situation can be interpreted as the content owners do not show excessive confidence as a result of changes in Bitcoin and Gold and they want to learn the opinions of other individuals. However, as the increase in the number of restructuring increases social interaction, it can be interpreted that individuals want to learn their views in this way. For ex-ample, "When do gold prices for gold fall and when should we buy?" etc. It can be thought that the retweeting of tweets provides social interaction between users by communicating with other users as a result of tweeting. As a result of the elimination of user information in the model, the variable appears to be meaningless, and the social interaction tendency of user in-formation cannot be different.

## 5. CONCLUSION AND DISCUSSION

The aim of this study is to determine the tendency of herd psychology, which is one of the irrational psychological tendencies of investors in Twit-ter, a micro blog on social media platforms. For this purpose, irrational investor trends on social media platforms, Twitter, are analyzed with bina-ry qualitative preference models. While there is an increase in the studies conducted in the field of behavioral finance, it is seen that there is a signif-icant gap in the social media field, especially in the literature of Turkey. In general, it is observed that social media studies focus on market research, consumer behavior and politics. In the literature, it is seen that psycholog-ical tendencies of individuals are tried to be determined by survey tech-nique which is one of the data collection methods. Therefore, it is aimed to present a different approach in this study. As a result of the analyses carried out in this context, the herd psychology tendencies of the 4601 in-vestors on Twitter, one of the non-rational psychological tendencies, were determined by econometric analysis. Besides, the successful

application of econometric models in behavioral finance models has been shown. To-day, politics, sports, arts, economics and so on. Since social media is more important than traditional media in many fields, there is an increase in the studies carried out by both the private and public sectors in this field. It is aimed at the findings of this study can be used by both public and private sector based institutions and organizations. Apart from the academic con-tribution, for example, it may contribute to systems such as FinTech, which has been transitioned in the banking sector, strategies to be determined on the social media platforms it reaches its customers, stock analysis on the Stock Exchange and many other branches of activity. It can be stated that this study will be useful in the analysis of the relations in the contemporary media which has passed to the interactive structure and the dynamics of progress, and the economic structure having the same structure.

# REFERENCES

Baik, B., Cao, Q., Choi, S. and Kim, J-M. (2011). *Local Twitter Activity and Stock Returns.* R&R at Journal of Financial and Quantitative Analysis. 1-49.

Bartov, E. Faurel, L. and Mohanram, P. (2017). *Can Twitter Help Predict Firm-Level Earnings and Stock Returns?.* Rotman School of Management Working Paper No. 2631421. 1-65.

Blom, C. R. (2013). *Twitter and Stock Returns.* Yayınlanmamış Yüksek Lisans Tezi. Norveç: Business and Economics.

Bollen, J., Mao, H. and Zeng, X. (2011*). Twitter mood predicts the stock market.* Journal of Computational Science. 2, 1-8.

Cramer, J.S. (2003). *The Origins and Development of The Logit Model.* https://goo.gl/u2qi2y (04 April 2019).

Golet, I. (2014). Symmetric and Asymmetric Binary Choice Models for Corporate Bankruptcy. Social and Behavioral Sciences. 124. 282-291.

Hosmer, D.W. and Lemeshow, S. (2000). *Applied Logistic Regression.* 2.Edition. New York: John Wiley and Sons.

Kahneman, D. and Tversky, A. (1979). *Prospect Theory: An Analysis of Decision Under Risk.* Econometrica. 47, 263-265.

Peatfield, *Brexit, Twitter and Behavioral Finance.* https://goo.gl/93i3cK (26 Kasım 2018).

Ranco, G., Aleksovski, D., Caldarelli, G., Grcar, M. and Mozetic, I. (2015). *The Effects of Twitter Sentiment on Stock Price Returns.* PLoS One A Peer-Reviewed, Open Access Journal. 10.9, 1-21.

Scharfstein, D. S. and Stein, J. S. (1990). *Herd Behavior and Investment.* American Economic Review. 80, 475-479.

Skalski,  P. D.,  Neuendorf, K.A. and. Cajigas, J.A. (2017). *Content Analysis  in the Interactive Media Age.* in Neuendorf, K. A. The Content Analysis Guidebook. ,  2nd edition. California: Sage Publications.

# THE RELATIONSHIP BETWEEN FINANCIAL CRISES AND FINANCIAL INDICATORS: AN EVALUATION ON TURKEY[*]

CHAPTER

10

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## 1. INTRODUCTION

Financing activities constitute only the half of total economy. Along with the real economy, financial markets are the other completing part of the whole economy. The production economy of goods and services needs the financial system. The financial system, in turn, owes its own existence to the other part. The two are required to work in a compatible manner. In order to achieve macroeconomic targets in meeting the ultimate goal of increased social welfare, these two segments should act in accordance.

There are different types or sources of crisis within the economic system. Among them, it may be economic stagnation, liquidity crisis or a collapse in the stock market. However, more or less the damage occurs. The financial markets are based on trust. It is far clear that the most valuable asset of financial markets is its credibility. Thus, no such capital exists to fill in the space of confidence in these marketplaces. Independent from the source of subsector, the lack of confidence produces severely harmful effects to all. The result is called financial crisis.

Failures are almost inevitable in today's modern world. All types of crisis, whether economic or financial, interrupt an ongoing rhythm among segments of the economy hence leaving behind all participants of the economic system with the burden of a huge cost. After each crisis, it is claimed that it was the last. Yet, the history repeats itself. This may occur in different ways but the consequences are almost the same. The excuses of a financial crisis are simple. For example, bankers easily assert that in today's large, global and complex business environment, such drawbacks are inevitable. The recent history of financial crises during the last 40 years reflects common features. These are excessive amount of optimism -irrational exuberance in Alan Greenspan's words-, insufficiency in regulatory framework, accounting frauds, herd mentalities and unreasonably exaggerated sense of confidence.

During the periods of boom years, excessive risk appetite and lofty prices -or balloons in other words- occur almost across all asset classes. The crash is followed by regulations that assure all market participants to consider the last crisis was left behind and would never be back. But only until the next one that appears sometimes as soon as the next year. According to Rhodes (2014) many of these incidents are avoidable. He argues that the critical issue is how they are resolved. Above all measures, he considers the strong political leadership as the most important aspect. Experienced cases of Brazil in 1994, South Korea in 1998 and Turkey in 2001 are given as examples to support this argument.

In the literature, the relationship between financial variables and financial crisis has attracted researchers' attention hence has been investigated in a number of works. Exchange rates, interest rates and stock market volatility are among the most commonly analyzed variables. This study's focus is limited to interrelations between financial crisis and stock market. The issue is examined on Turkey. Even though the interactions between crisis and such variables as exchange rate, interest rate and stock market volatility are frequently examined in the literature, no study regarding stock market turnover ratio's relationship with crisis is identified, at least for the best of our knowledge. Therefore, this study, in addition to other selected variables, provides an unusual finding on the case of crisis and turnover ratio interactions. For the purpose of the study, movements of selected stock market indicators are observed with respect to pre, during and post crisis periods between 1993 and 2015. With no exception, all crises of national and international are covered in this time frame. The rest of this paper is organized as follows: the second section provides a brief on crisis' interaction with economy. The third section covers the literature on relations between financial crisis and economy. The fourth section provides an evaluation on the links of financial crisis with selected financial indicators in Turkey. The study completes with the conclusion section.

## 2. CRISIS AND ECONOMY

Crisis has become nearly an ordinary part of modern economies. Following a crisis, economic units take measures, rearrange its position and adapt to new normal. Everything seems normal until the next crisis reminds itself and hits once again. Recent crises prove that the time range between crises has shortened. Moreover, they have emerged as more international than national. It is presumably due to globalization and integration of economies ever more than before.

Harmful effects of a financial crisis may be observed within all segments of a given economy at varying degrees. There is a large body of literature to investigate different aspects or connections of crisis. In general, the literature focuses on causes and consequences of crisis. Especially, the relationship between economic or financial variables and crisis grabs much attention. The interactions between exchange rates and stock market data are one of the most popular topics among scholars. Because of today's globally integrated world economy, pricing in foreign exchange market possesses considerable impacts on different aspects of a local economy. The effects can be observed both at macro and micro level. For example, depreciation in national currency creates an anticipation of increase in inflation while export-driven sectors or companies benefit from a depreciating currency. Increased foreign exchange rates may create mixes effects.

Therefore, the final outcome will reflect the result of combined effects depending on each one's relative dominance.

## 3. RELATED LITERATURE

The literature, in general, provides evidence to prove that a joint determination exists between exchange rates and stock prices. Yet, there is no widespread agreement on the sign of the relationship. The works of both Ajayi and Mougoue (1996) and Granger et al. (2000) support the view that there is a two-way relationship between currency and stock markets. Ajayi and Mougoue (1996) study both the short and long term relationship between exchange rates and stock prices. They report that an increase in stock prices result in a depreciating currency in the US and the UK. On the other hand, stock prices drop following the depreciation of the currency. Granger et al. (2000) investigate the same relationship for Asian countries during the Asian Crisis of 1997. They find evidence that there is a bivariate causality between currency depreciation and stock price decline for several countries in the sample.

Kohler (2010) compares the recent global crisis with the Asian Crisis in 1997 and the Russian Crisis in 1998 from currency markets' point of view. The study reveals that the exchange rate dynamics during the recent global crisis are different from the other two. That is, unlike in two previous crises, depreciated currencies have strongly reversed back against major currencies within a year or so. The researcher explains this unusual development by safe heaven flows and the role of carry trade. Capital fleeing from other currencies to major currencies like USD, CHF and JPY reversed back in short term since the US banking system was the source of the crisis. This experience reflects a new dynamics in currency markets. In addition to an effect on a broader set of currencies, more articulated swings in exchange rates during and post crisis events are observed.

Currency and stock market interactions, if any, may be crucial for detecting a financial crisis hence preventing it. For instance, the works by both Ito and Yuko (2004), and Khalid and Kawai (2003) argue that the linkage between currency and stock markets has showed a contagion effect during the Asian Crisis in 1997. Dimitrova (2005) investigates the link between exchange rates and stock markets for the US and the UK. The findings provide an empirical proof that currency depreciation may depress the stock market but not vice versa. The result also implies that currency appreciation boosts stock prices.

Nath and Samanta (2003) investigate the causal linkage between returns in stock market and forex market of India. They report that despite the absence of a causal relationship in general, a strong causal effect is detected

from stock market return to forex market return in recent years. Applying Johansen's co-integration and Granger causality tests, Zubair (2013) estimates the causal relationship between stock market index and monetary indicators (M2 and exchange rate) for Nigeria during the recent global crisis. The findings indicate the absence of a long-term relationship before and during the crisis. Only one uni-directional causality from M2 to stock market is presented. This linkage is interpreted as the responsiveness of stock market to M2 whereas the absence of direct linkage between stock market and exchange rate is attributed to the inefficiency of the market. Aliyu (2011) also provides similar findings for Nigeria. The study features support to the rational expectations hypothesis argument for the Nigerian stock market. Kontonikas et al. (2013) examine the response of US stock returns to Fed Funds rate surprises between 1989 and 2012. They find that except for the crisis period, stock prices increased as a response to unexpected Fed Funds rate cuts.

Using data on four South Asian countries Muhammad et al. (2003) examines short and long run relationship between stock prices and exchange rates. Their findings provide evidence that there is no short run association between the variables for all countries. However, the study's long run results are mixed, indicating no linkage for two countries and a bi-directional causality for the other two. Analyzing the impact of the last global crisis on stock markets of India and Pakistan, Ali and Afzal (2012) assert that negative shocks possess more influence on the volatility than positive shocks. Focusing on the Asian crisis of 1997 and the recent global crisis for Australia, Singapore, the UK, and the US, Athukoralalage et al. (2010) investigate the relationship between stock market returns and their volatility. The results show no impact of the mentioned crises on returns of these markets although the crises significantly increased the stock return volatilities.

In a comprehensive work, Schwert (2011) studies the volatility of stock returns in the US between 1802 and 2010. The results reveal that the recent crisis is associated with historically high levels of stock market volatility. On the contrary to the prolonged volatility during the Great Depression, this was not anticipated to continue for long and so it did not. This finding carries implications about the link between stock market volatility and real economic activity. Sakthivel et al. (2014) examine the effect of the last global crisis on stock market volatility in India. They report that compared to the pre-crisis period, the volatility of mean returns shows an increase after the crisis. Rasheed et al. (2014) investigate the impact of exchange rate on shares turnover of Karachi Stock Exchange. The study provides evidence of a significant relationship between the two variables. This implies that trading volume of the stock market is subject to deviation in the exchange rate. Açıkalın et al. (2008) study the relationship between Istanbul Stock Exchange (now called BIST) and four macroeconomic variables, which are GDP, exchange rate, interest rate and current

account balance. They find long-term stable relationships between the stock market and macroeconomic variables. Unidirectional effects are detected from macroeconomic variables to stock market whereas the impact of stock market to interest rates is reported as an unusual finding.

## 4. DATA AND METHODOLOGY

The data set consists of such selected financial indicators as stock market turnover ratio, stock market trading volume, interest rate and exchange rate (USD/TL). The data is gathered from publicly available sources including World Bank, The Central Bank of Turkey, and Bourse Istanbul (BIST). The study contains no in depth analysis yet, provides only a general outlook of the relationship between financial crises and mentioned financial indicators over the period of 1993-2015. Consequently, there is no statistical analysis applied. Inferences are based on observations of rough data and graphs.

## 5. AN OBSERVATION ON SELECTED FINANCIAL INDICATORS DURING THE CRISES

The study provides a general review on the interactions of selected financial indicators for Turkey during the crises between 1993 and 2015. Over the time span, the notable crises and selected financial variables are listed in the Table 1 below.

**Table 1:** *Financial Crises and Selected Financial Variables*

| Years | The Crises | Turnover Ratio | Trading Volume (TL) | Interest Rate (%) | USD/TL* |
|---|---|---|---|---|---|
| 1993 | | 43,70 | 25.522.273.000 | 64,57 | 0,0145 |
| 1994 | Mexican Crisis | 100,29 | 65.147.548.500 | 87,79 | 0,0384 |
| 1995 | Turkish Crisis | 244,99 | 237.183.239.300 | 75,97 | 0,0611 |
| 1996 | | 119,53 | 301.118.531.700 | 80,75 | 0,1075 |
| 1997 | Asian Crisis | 71,51 | 904.872.077.500 | 79,49 | 0,2048 |
| 1998 | Russian Crisis | 169,92 | 1.802.996.663.900 | 80,11 | 0,3127 |
| 1999 | | 60,32 | 3.687.733.460.300 | 78,43 | 0,5401 |
| 2000 | Turkish Crisis | 238,08 | 11.077.814.899.400 | 47,16 | 0,6718 |
| 2001 | Turkish Crisis | 135,74 | 9.311.883.262.300 | 74,70 | 1,4396 |
| 2002 | | 188,58 | 10.630.137.241.000 | 50,49 | 1,6345 |
| 2003 | | 143,51 | 14.664.216.627.700 | 37,68 | 1,3958 |
| 2004 | | 149,10 | 20.841.395.198.000 | 24,26 | 1,3421 |
| 2005 | | 124,83 | 26.993.135.642.000 | 20,40 | 1,3430 |
| 2006 | | 140,77 | 32.515.133.606.600 | 21,65 | 1,4131 |
| 2007 | | 114,15 | 38.668.189.941.400 | 22,56 | 1,1647 |
| 2008 | Mortgage or Global Crisis | 188,15 | 33.261.479.198.500 | 22,91 | 1,5123 |
| 2009 | | 134,98 | 48.253.428.572.500 | 17,65 | 1,5057 |
| 2010 | | 133,33 | 63.566.439.762.600 | 15,27 | 1,5460 |
| 2011 | | 183,22 | 69.533.755.067.500 | 14,22 | 1,9065 |
| 2012 | | 113,87 | 62.333.293.306.000 | 16,35 | 1,7826 |
| 2013 | | 191,19 | 82.016.880.405.000 | 15,76 | 2,1343 |
| 2014 | | 168,25 | 85.635.122.500.613 | 16,77 | 2,3189 |
| 2015 | | 185,15 | 102.587.407.636.240 | 14,92 | 2,9076 |
| * In accordance with the subtraction of zeros in 2005, six zeros are dropped for the previous data of 1993-2004 period. | | | | | |

**Source: http://data.worldbank.org (28.04.2017)**

The evaluation covers all crises whether domestic or international. Followings are identified by the observations:

- Time series of stock market share turnover ratio[1]* shows the most dramatic interactions with respect to the crises. Except for the crises in 1997 and 2001, distinctive increases are observed in the share turnover ratio. Compared to 1993, the compounding effect of the Mexican and the Turkish crises in 1994 and 1995 reflects about a sextuple increase. In addition, a quadruple increase is detected during the Turkish crisis of 2000. Even though an increase is also notable over the global crisis of 2008, the change is relatively moderate. This detected course of share turnover ratio is visually presented in the Graphic 1.

**Graphic 1:** *Share Turnover Ratios*
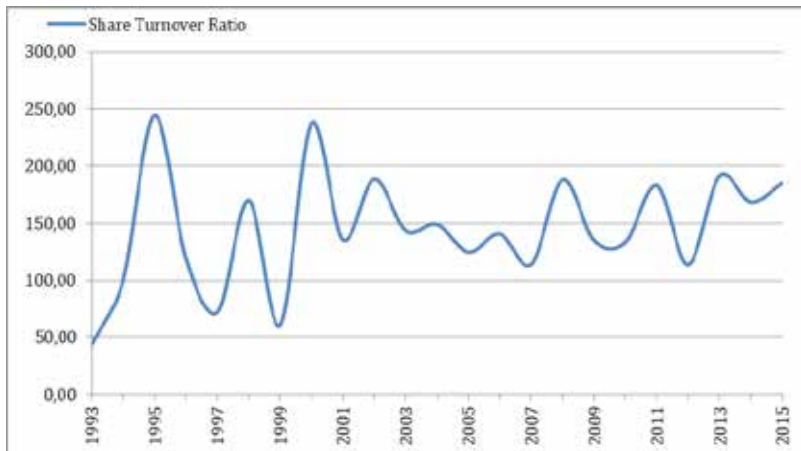


- As another stock market indicator, the trading volume in stock market is examined. The observations provide similar effects of crises on the stock market trading volume as share turnover ratio with two exceptions. The first one is during the Asian crisis of 1997. While share turnover ratio reflects no impact of the crisis in 1997, trading volume displays a triple increase compared to the precious year. A possible explanation to this case is the safe heaven effect. That is, the effect of the Asian crisis on Turkish market has been limited hence increasing stock purchases while prolonging the holding period. In 2008, on the other hand, a drop is marked in trading volume. This may be attributable to investors' trading more on shallow and/or low-priced shares. Below Graphic 2 shows the trend in trading volume.

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1    * A stock market's turnover ratio measures how often shares change hands. It is calculated by dividing the total number of shares traded over a particular period by the number of shares outstanding during that period. A high share turnover indicates that it is easier for investors to buy or sell the shares in the open market. Therefore, it is an indicator of the market liquidity.

**Graphic 2:** *Stock Market Trading Volume*
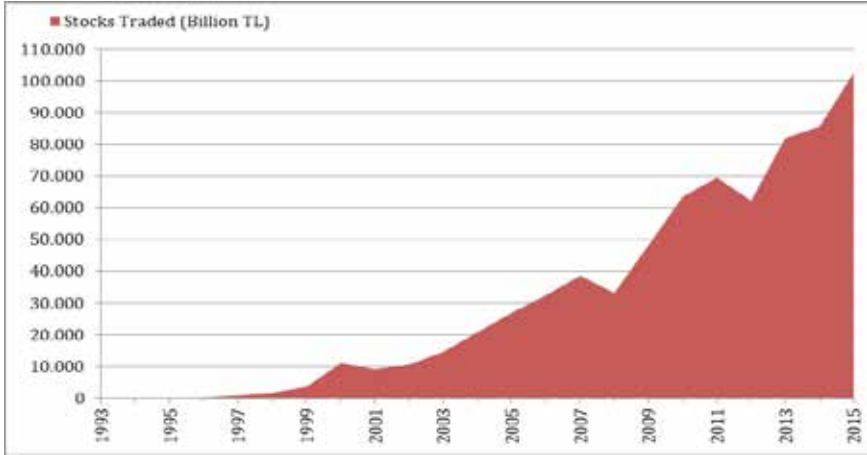


- The data on interest rate does not reflect a clear relationship with the crises. Only notable change is observed in the crisis of 2001. A sharp increase, with no surprise, is shown in 2001. The course of interest rate may be observed in the Graphic 3.

**Graphic 3:** *Interest Rate*
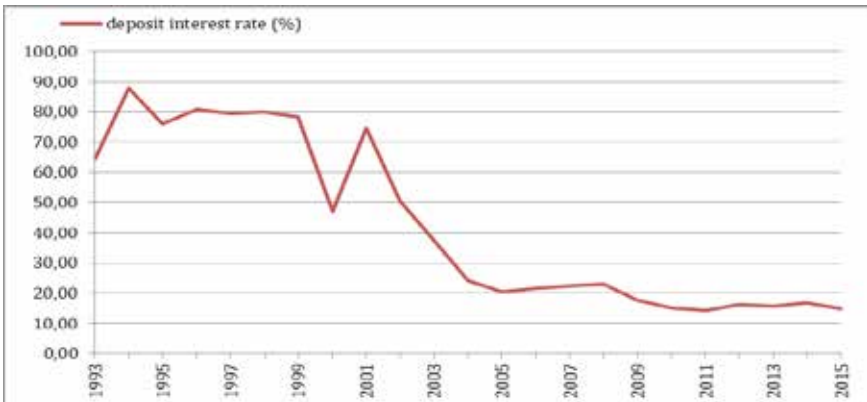


- Due to the high rates of inflation in Turkey over a long period of time, exchange market (namely USD) has the history of a general trend of depreciation in local currency. However, dramatic increases have occurred during the crises. The period between 2002 and 2008, though, constitutes an exception to this trend. In this period, an appreciation has been experienced in Turkish liras. This may be attributed to the serious amount of capital inflows observed during this period. The trend of exchange rate is presented in the Graphic 4.

**Graphic 4:** *Exchange Rate*
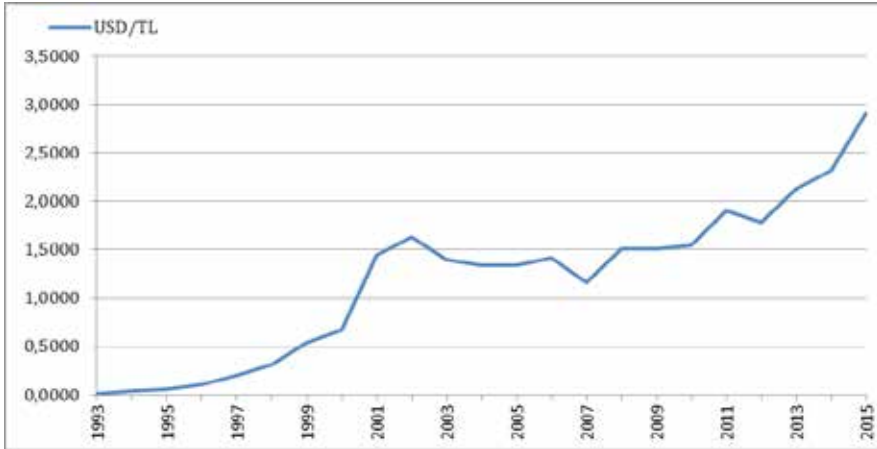


## 6. CONCLUSIONS AND RECOMMENDATIONS

The interactions between financial crisis and certain financial indicators have been subject to examination in numerous studies. In search for possible associations of the crises with share turnover ratio, stock market trading volume, interest rate, and exchange rate, this study tackles the issue for Turkey. Taking all national and international crises between 1993 and 2015 into account, a not in-depth examination is conducted. The observations indicate interactions of the crises with the selected financial variables. Among these associations, one with the share turnover ratio is particularly distinctive. Extraordinary increases in stock market share turnover ratio during crises may be interpreted as an indication of investors' preference to lower their share holding period. A possible safe heaven effect is detected in stock market trading volume during the Asian crisis of 1997. A safe heaven effect may also be a case to increasing USD while dropping stock market trading volume simultaneously in the beginning year of the global crisis in 2008.

This study is considered only a preliminary examination hence the findings are open to discussion. Therefore, an in-depth analysis on data set would be helpful to reach more solid results to interpret. It may be proposed as the subject of a future research.

# REFERENCES

Açıkalın, Sezgin, Aktaş, Rafet & Ünal, Seyfettin. (2008). Relationships Between Stock Markets and Macroeconomic Variables: An Empirical Analysis of the Istanbul Stock Exchange, Investment Management and Financial Innovations, **5**(1), pp.8-16.

Ajayi, R.A. & Mougoue, M. (1996). On the Dynamic Relation Between Stock Prices and Exchange Rates, The Journal of Financial Research, 19, pp.193-207.

Ali, Rafaqet & Afzal, Muhammad. (2012). Impact of Global Financial Crisis on Stock Markets: Evidence From Pakistan and India, Journal of Business Management and Economics, 3(7), pp.275-282.

Aliyu, Shehu Usman Rano. (2011). Reactions of Stock Market to Monetary Policy Shocks During the Global Financial Crisis: The Nigerian Case, Munich Personal RePEc Archive, Paper No. 35581.

Athukoralalage, Indika Karunanayake, Valadkhani, Abbas & O'Brien, Martin. (2010). The Effects of Financial Crises on International Stock Market Volatility Transmission, University of Wollongong Research Online, http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1017&context=buspapers (Accessed on March 3, 2017).

Dimitrova, Desislava. (2005). The Relationship Between Exchange Rates and Stock Prices: Studied in a Multivariate Model, Issues in Political Economy, 14.

Granger, C.W.J, Huang, B. & Yang, C.W. (2000). A Bivariate Causality Between Stock Prices and Exchange Rates: Evidence Form Recent Asian Flu, The Quarterly Review of Economics and Finance, 40, pp.337-354.

Ito, T. & Yuko, H. (2004). High-Frequency Contagion Between the Exchange Rates and Stock Prices, Working Paper, 10448, NBER.

Khalid, A.M. & Kawai, M. (2003). Was Financial Market Contagion the Source of Economic Crisis in Asia?: Evidence Using a Multivariate VAR Model, Journal of Asian Economics, 14, pp.131-156.

Kohler, Marion. (2010). Exchange Rates During Financial Crises, BIS Quarterly Review, March 2010, pp.39-50.

Kontonikas, Alexandros, MacDonald, Ronald & Saggu, Aman. (2013). Stock Market Reaction to FED Funds Rate Surprises: State Dependence and the Financial Crisis, Journal of Banking & Finance, 37, pp.4025-4037.

Muhammad, Naeem, Rasheed, Abdul & Husain, Fazal. (2003). Stock Prices and Exchange Rates: Are They Related? Evidence From South Asian Countries the Pakistan Development Review Vol. 41, No. 4, Papers and Proceedings PART II Eighteenth Annual General Meeting and Conference of the Pakistan Society of Development Economists, Islamabad, January 13-15, 2003, pp.535-550.

Nath, Golaka C. & Samanta, G.P. (2003). Relationship Between Exchange Rate and Stock Prices in India - An Empirical Analysis, http://dx.doi.org/10.2139/ssrn.475823.

Rasheed, Shahid, Baloch, Qadar Bakhsh & Irfanullah, Yasir Raheem. (2014). Effect of Exchange Rate on Shares Turnover of Karachi Stock Exchange, Abasyn Journal of Social Sciences, 7(2), pp.229-240.

Rhodes, William R. (2014). Reflections on "Banker to the World", Studies in Applied Economics, John Hopkins Institute for Applied Economics, Global Health, and Study of Business Enterprise, 14, pp.1-11.

Sakthivel, P., Kumar, Veera, Raghuram, G., Govindarajan, K. & Anand, V. Vijay. (2014). Impact of Global Financial Crisis on Stock Market Volatility: Evidence From India, Asian Social Science, 10(10), pp.86-94.

Schwert, G. William. (2011). Stock Volatility During the Recent Financial Crisis, http://www.nber.org/papers/w16976.

Zubair, Abdulrasheed. (2013). Causal Relationship Between Stock Market Index and Exchange Rate: Evidence from Nigeria, CBN Journal of Applied Statistics, 4(2), pp.87-110.

http://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS?locations=TR (Accessed on April 28, 2017).

# A SHORT HISTORY OF SCIENCE COMMUNICATION IN TURKEY: ACTORS, INSTITUTIONS AND POLICIES

**CHAPTER**

**11**

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## INTRODUCTION

Science emerged as a result of the human effort to understand and make sense of himself and the nature. Cahit Arf, who is the most esteemed Turkish mathematician and who created mathematical terms such as Arf constant and Arf rings, said in one of his speeches that *"The purpose of a scientist is to understand, but to understand in capital letters"*. The American astronomer and astrobiologist Carl Sagan also summarized what science is as the following: *"Because science carries us toward an understanding of how the world is, rather than how we would wish it to be, its findings may not in all cases be immediately comprehensible or satisfying*". It is the work of scientists to understand and give meaning to the universe that we live in, including nature, people, products, technology and to make predictions for the future, to warn against bad outcomes and to strive to create a more livable world. It is therefore of the utmost importance that scientists can communicate their findings and ideas to the public in order that common people are aware of new scientific developments and can use this knowledge in their own lives, taking adequate precautions and basing their decisions on scientifically verified truths. However, science can sometimes include formulas, concepts and theories that are difficult for the public to comprehend. At this point, science communication, which makes the complex nature of scientific activities clear to the public and makes science more popularly accessible, also contributes to science at the same time thanks to the spread of science culture, leading to a more interactive and democratic relationship between science and the general public. The importance of science communication is increasing steadily in the world as science is advancing rapidly in every field. By surveying the science communication studies that have been undertaken in Turkey until the present, we can better understand our current status and formulate plans for the future.

With reference to this knowledge, this study examines the historical development of science communication in the world and in Turkey. The aim of the study is to emphasize the importance of science communication; determine the status of science communication activities, policies, practices and problems in Turkey. Thus, science and science communication policies can be produced for the future with reference to these findings.

There are a limited number of studies have been made about science communication in Turkey, and the historical context of the subjects were ignored in these studies. It is important to discuss also the historical process of science communication and science journalism activities from the past to the present by reviewing the subject from a holistic perspective and under-

standing the current status of the field. This study is important because it examines the history of science communication in Turkey to the present day.

In this study, which has a descriptive research design, the situation was determined by the literature review. In this context, books and articles that contain theoretical and historical approaches and discussions about science communication in the world were examined. Then, the books and articles discussing the history of science communication in Turkey were reviewed, and the official reports and plans outlining this science policy were analyzed. The current data related to science communication activities in Turkey was obtained from the website of The Scientific and Technological Research Council of Turkey (TÜBİTAK). In addition, data related to science communication education has been collected from the websites of universities. Finally, the Higher Education Council Thesis Center (YÖK) database was analyzed for thesis studies related to science communication; and national and international databases were scrutinized for relevant articles as well.

## Why Science Communication?

Science communication is all the various activities aiming to increase public knowledge related to scientific awareness and literacy; providing effective communication and dialogue among the general public, media and scientists (Burns, O'Connor and Stocklmayer, 2003, p. 198-199). In this respect, science communication serves as a kind of bridge between actors, resources, and methods.

Science communication serves to raise the awareness of science in society, to arouse curiosity towards science and to create a perspective about science. Science communication is perhaps the only mechanism for most people to learn about scientific developments that affect everyone. In addition to providing information about what is happening in science, science communication also provides information on public policy about science and how public spending reserved to science is used and the benefits of scientific activities to society (Treise and Weigold, 2002, p. 311). It also improves scientific thinking of the public by making scientific information accessible. Scientific thinking, which is one of the prerequisites of economic and technological development, also contributes to the democratic progress of societies. The popularization of science through science communication not only leads to an increase in the level of scientific knowledge and reasoning on the part of the public, but also helps to support the academic scientific community of the future by warning, leading, and raising the awareness of new generations who would like to practice science.

Science communication is a field of study wherein people from many different fields come together. It has its own formal qualifications, professional education and research networks. It has not yet been established as an academic discipline; however, it has strong interdisciplinary characteristics and may constitute a sub-discipline in the nascent field of communication studies (Trench and Bucchi, 2010, p. 3). For almost thirty years, science communication has been a teaching and a research field in universities around the world. Although its position as an academic discipline continues to be discussed, graduate degree programs and doctoral research in the field are increasing (Trench, 2012).

Science communication includes activities such as communication through the conventional media (press, radio, television and science-themed contents on cinema), science and discovery centers, science museums, science fairs, social assistance by higher education institutions and adult education (Short, 2013, p. 39). In addition to these, internet forums, social media groups, science clubs and communities, science shows, theatrical plays, popular science book, scientific journals, scientific competitions and festivals are all activities that encourage scientific literacy and provide opportunities for effective science communication.

## Popularization of Science and Historical Development of Science Communication

Bauer (1998, p. 75) describes popularization as "all activities that distribute scientific knowledge, facts and methods among people who do not engage in scientific production or in whose lives the scientific research does not have an important place". The popularization of science and public-oriented science communication is certainly not a new phenomenon. Numerous popular science books were written in the 18th century to meet the increasing public interest. In addition, science communication practices were basically developed simultaneously with two different processes: the institutionalization of scientific research as a high-status and specialized profession; and the development and spread of the mass media (Bucchi, 2008, p. 57).

In parallel with the Industrial Revolution and the spread of capitalist production, people began to appreciate the power of science and technology in the 19th century and this increased the visibility of science in the press. In this century, science and technology began to manifest themselves in the media in a serious and sensational way. In the 1830s, a London newspaper, *Athenaeum*, included regular meetings of the London Geological Society. At the end of the 19th century, both European and American newspapers published the conference proceedings of scientists who wanted to popu-

larize their work, such as Thomas Huxley, Louis Agassiz and Asa Gray (Nelkin, 1994, p. 124). Again, during this period, many popular scientific journals were established in The United States and these afforded ample room for editors who wanted to fill their pages with science news. At the end of the 19th century, scientists assumed popularization as part of their scientific endeavors and engaged in activities in this direction (Dunwoody, 2008, p. 15-16).

At the beginning of the 20th century, especially with the new developments in physics, the idea that science was "too complicated" for most people to understand became widespread. The knowledge gap between scientists and ordinary citizens consequently grew, and, alongside the continuing interest in science, anti-science views emerged as well (Bucchi, 2008, p. 57; Nelkin, 1994, p. 126).

The First World War and its aftermath witnessed significant developments in the economy and science generally. The economic growth of the 1920s created an environment that was conducive for the popularization of science. Moreover, during this period, the spread of scientific studies and the increase in the interest in science had a major impact on the popular science press and science reporting became a staple of many newspapers. Alongside the growth in science book publishing in America in the 1920s, cinema and radio became new tools of science communication. In 1921, the national science news agency Science Service was established to distribute science news produced by science journalists to the press in the US (Gregory and Miller, 2010, p. 53-54). The Science Service, which was the first institution of its kind presented science in a marketable (i.e. readable) format and sold its articles to more than 100 newspapers in the 1920s reaching more than 7 million readers. By laying the foundation of contemporary science journalism, it brought a sense of purpose and style to the profession (Nelkin, 1994, p. 128).

In parallel with the economic depression of the 1930s, the slowdown in scientific production also reduced the relative interest in science. In these years, the National Science Writers Association was established to support science writing in the United States and to encourage media organizations involved in science writing. Since the number of science journalists was few and recruiting science journalists was costly, science writing had not become so widespread in the United States until the middle of the 20th century (Dunwoody, 2008, p. 16-17). In England, the emergence of professional science journalism and the institutionalization of science journalism coincided with the interwar period. The period also witnessed radical changes in newspaper publishing and, in the content, and composition of newspapers. The science journalists who emerged at this time were forced

to mediate between the journalistic culture in which they were embedded and the larger scientific community, and they sought to establish the practical rules of their profession. The 'news value' of science journalism emerged during this period in the negotiation between scientists, science journalists, and editors (Hughes, 2008, p. 11). While science became a part of the overall project of journalism in England in the 1940s, it also began to be afforded wide coverage in radio and on television. This increasing media attention motivated increasing numbers of journalists to enter science journalism, and the number of specialized science writers consequently increased. In 1947, the British Association of Science Writers was founded to conduct discussions on the working practices and ethical standards of science journalists (Bauer and Gregory, 2008, p. 37).

The technological innovations surrounding the Second World War served as a catalyst which enabled governments to invest in scientific research in the post-war period. After the Second World War, scientific studies were transformed into activities that were carried out by large research teams and large budgets were allocated for them by governments. For example, while the US had allocated $1.5 billion for research and development activities in 1930, 20 years later, this number reached $30 billion (Greco, 2013, p. 19). In the 1950s, science became an integral part of national economies, as well as national and international politics. In the late 1950s and early 1960s, there was a large expansion in the science content published in the media (Gregory and Miller, 2010, p. 73). In addition to newspaper articles and radio programs, scientists became famous celebrities because of the wide currency science had gained on television.

Nelkin (1994, p. 138) has described the 1960s as a period of scientific and technological 'breakthroughs' and 'revolutions' which ultimately gave rise to the golden age of science journalism. At the same time, however, the 1960s were a period in which criticism of popular science journalism also came to the fore. The expansion of a rival press, which had a critical and reformist ideology, forced the dominant press to revise the customs of journalism, and the news articles began to assume a more commenting, causal, and critical character. These trends were reflected in science news. Moreover, the fact that scientists became a party to the environmental and energy debates of this period, led scientists to question their own role as objective and impartial arbiters of truth. The admiration felt for the wonders of science and technology in the late 1960s and 1970s left in its place a sense of anxiety for the risks posed to the natural environment and social life. Journalists increasingly adopted a more critical view, which, rather than celebrating technological and scientific progress as an unmitigated good, emphasized the problems brought by technological change (Nelkin, 1994, p. 21).

In the 1980s, the technological enthusiasm of the 1960s was reborn, as the rise of neoliberal capitalism ensured the revival of science and technology and underscored their strategic importance. However, unlike previous decades, in this new era, interest in science and technology was concentrated more in private capital than in states, and scientific activities were increasingly financed by companies themselves. Science was commercialized as the inevitable consequence of its being financed by private capital (Bauer, 2008a, p. 8-9). The commercialization of science also served to enhance public relations and advertising activities in the field of science communication.

In the 1980s and subsequently, as the media was increasingly commercialized and public broadcasting was replaced by commercial broadcasting, a serious rupture occurred in the traditional relationship between the media and science, and a process that Weingart (2012, p. 17) has termed the 'medialization of science' was inaugurated. As part of this process, there has been a transition from science journalism, which pursues scientific reporting in the public interest, to commercial journalism.

In addition, the tendency toward tabloidization, which has been dominating journalistic practices since the 1980s, has also been reflected in science news. Tabloidization (Schönbach, 2000, p. 63), which means a greater emphasis on media products that have entertainment value or emotional appeal, and which can be presented in a simple, easy-to-consume form, has changed the nature of science news. Stories which are sensational can attract greater interest and their purpose is to entertain rather than to inform; these include mysterious natural events, miraculous cures, medicinal plants, as well as a focus on the private lives of scientists, all of which have become a staple of contemporary science news.

## Different Paradigms in Science Communication

Science and technology, which are at the heart of economic, military, and social development, require political and public support as well as enough financial resources and a qualified workforce. Public support for scientific studies and innovations can only be achieved by understanding science and connecting with science in a variety of ways. Throughout history, different paradigms and approaches have dominated science communication, though these have all be aimed at encouraging dialogue and communication with science fundamentally. Science communication activities since the end of the 20th century have included different paradigms such as the 'Public Understanding of Science', 'Public Awareness of Science', 'Public Engagement with Science' and 'Science in Society' (Short, 2013, p. 39).

Science and scientists were highly respected by the public in the period following World War II. However, 30 years later, in the 1970s, with the increasing concerns about issues such as industrial pollution and nuclear energy, the public's attitude toward science became more critical. At the same time, governments around the world began to reduce the budget that was allocated for scientific research. Science and technology have since faced a crisis of legitimacy. In the current climate, scientists and researchers have been forced to justify their work in order to receive public support. In the mid-1980s, with the 'public understanding of science' movement supported by the government in England, several measures were taken in this direction (Göpfert, 2008, p. 215; Gregory and Miller, 2010, p. 5). The importance of science and technology was explained in a report titled the 'Public Understanding of Science', which was published in 1985 by the Royal Society and which marked a watershed moment in the evolving relationship between science and society. The report bluntly stated that the public was unwilling to provide sufficient support for scientific research and that interest in science was waning, provoking concern on the part of scientific institutions and leading to some suggestions (The Royal Society, 1985).The Committee on the Public Understanding of Science (COPUS) was established upon the publication of the report, which stated that communication between scientists and journalists should be developed and science should explain itself to the public through the media (Gregory and Miller, 1998, p. 4).

Though the 'public understanding of science' movement was the result of a well-intentioned effort, it was based on the assumption that the neglect of science by the people was caused by the ignorance of the mass media and of the people, and if more attention were devoted to science, the problems would largely disappear. In this approach, which understood the public as passive recipients of knowledge and argued that their ignorance and hostility toward science could be eliminated by the appropriate implementation of science communication, the source and target were clearly demarcated and science communication was seen as a linear, unidirectional process that affected only the target audience (Bauer and Gregory, 2008, p. 39; Bucchi, 2008, p. 58).

The 'public understanding of science' movement has been widely criticized since the 1990s. One of the starting points of criticism is that this approach assumes that the public is an empty vessel, which simply needs to be filled with scientific knowledge (Gregory and Miller, 2010, p. 31). This paradigm was also criticized on the grounds that it distances scientists from the general public and assumes a somewhat paternalistic stance, leading to alienation, public distrust and even hostility toward science (Pitrelli, 2003, p. 2).

Since the 1990s, this approach has given way to several different perspectives such as the 'public engagement with science', which argues that communication should be reciprocal and interactive, or 'science in society'. The connection between the public and science or the science in society approach was set forth at an institutional level for the first time in a report entitled 'Science and Society' published by the House of Lords in England in 2000. According to many researchers, this report represents the end of an historical cycle. The message of the report is clear: Citizens, who want to convey their views on scientific issues that affect their daily lives, need more opportunities and interaction (Pitrelli, 2003, p. 3). In this new approach, the relations between the parties are more equal and more interactive (Bucchi and Trench, 2016, p. 157).

## Science Communication in Turkey from the Ottoman Empire to the Republic

In order to understand the present state of science communication in Turkey, it is necessary to look first to the historical development of science policy in the country. The developments in the military and technical innovations that were realized within the frame of the Westernization and modernization movements in the Ottoman Empire began during the 'Tanzimat' reform era. Dursun (2009, p. 38) defined this Westernization process as the reception of Western science and intellectual life from the Ottoman Empire to the present day. However, it is more appropriate to define science communication in the 'Tanzimat' reform era as the process of raising the individuals that will convey scientific developments to the public rather than reaching the people (Koloğlu, 1997, p. 26).

Although the emergence of science journalism as a field of expertise took place in the twentieth century, the history of news reporting that had a scientific content is synchronous with history of journalism. For example, the first Turkish newspaper in Egypt named *Vakayi-i Mısriye* published what might be regarded as the first scientific news article titled "The Cypress tree reaching 8 meters due to the humidity of the bath and the importance of the humidity (Issue:27)"; another concerns the "Importance given on planting trees in France (Issue: 162)"; yet another addresses the "5073-batman (an old weight unit used in Ottoman equals to 8 kg) cattle grown in state stables (Issue: 473)" (Koloğlu, 1997, p. 27). The first Turkish official newspaper, which was first published in 1831 and was named *Takvim-i Vekayi*, included science and technology news. Osman Bahadır (2001, p. 14) considers the formation of scientific institutions in the second half of the 18th century in the Ottoman Empire as having been motivated by the needs of the state and points out that the first scientific communities in the Ottoman Empire were formed after the declaration of Tanzimat. The

first scientific publication released in the Ottoman Empire was a medical journal, *Vakayi-i Tıbbıye* (1849). The first Ottoman science magazine was *Mecmua-i Fünun*, which was issued by Cemiyet-i İlmiye-i Osmaniye (the Ottoman Association of Science that was modeled on the Royal Society of England) in 1862 under the leadership of Münif Pasha (Cankaya, 2018, p. 8). In this journal, translations and articles on topics such as physics, chemistry, geology, medicine, astronomy, geography, economy, history, art history, forestry, transportation, public works, philosophy, ethnology, literature, education, language, urbanism, politics and the military were published (Bahadır, 2001, p. 15). The proliferation of scientific publications, which began at this time and continued until the end of 19th century, ended after the publication of a magazine called *Irtika* in 1897. No scientific magazine was published from this date to the Second Constitutionalist period. After this period, various monthly and weekly periodicals were published but none of them were able to sustain themselves into the Republican period (Bahadır, 2001, p. 15).

Alongside the noteworthy publications, some individuals played an especially important part in the history of the Turkish press. Ahmet Mithat Efendi, who was an important writer and journalist during Tanzimat reform era, was defined as a "model science journalist" by Koloğlu (1997, p. 46) due to his reportage on science and technology in a newspaper named *Tercümanı Hakikat* and in a weekly magazine named *Müntehabatı Tercümanı Hakikat*. For this reason, Ahmet Mithat is the first person to be commemorated in Turkish science communication.

After the declaration of the Republic, the main objective was to continue the modernization efforts under the influence of science, technology and the mind (Giritli, 1987, p. 366). Unfortunately, the Republic of Turkey has neglected a rich heritage inherited from the Ottoman Empire in terms of science and technology. Turkey, which, in the course of its struggle for independence, lost much of its qualified labor power and physical resources, set out on a path of progress based on science and technology. Mustafa Kemal Atatürk acted with the principle of "science for society and all life" in order to achieve this goal by imposing scientific values upon every field (Bahadır, 2005, p. 11). This principle was enunciated in Mustafa Kemal Atatürk's discourses on science. Atatürk stated the following in his speech to the teachers in Samsun, "*For everything in the world, for civilization, for life, for prosperity our true mentor in life is science. Seeking another mentor than science is blindness, ignorance, perversion. However, it is a must that we must follow the development of science and technique phase by phase in accordance with the necessities of the time*" (Atatürk Research Center, 2006, p. 202). Atatürk, who said that "*Raising the new generation with this quality and capability is only in your power*" in the Teacher's

Union Congress (Atatürk Research Center, 2006, p. 178), also underlined the importance of science in his Tenth Anniversary speech with the next sentence; "*The torch the Turkish nation holds in her hand and in her mind, while marching on the road of progress and civilization, is positive science*" (Atatürk Research Center, 2006, p. 318).

İsmet İnönü, like Atatürk, has considered one of the country's foremost proponents of development and an advocate of the progressive power of science. When the first popular science magazine of Republic period, *Fen Âlemi (World of Science),* was published on 10th February 1925, İnönü sent a congratulatory address to Mehmet Refik Bey, who was owner of the magazine, in order to state his appreciation and pride in the publication of such a magazine which could properly convey science to the public (Bahadır, 2005, p.13). *Tabiat* Âlemi *(World of Nature)* was published following *Fen Âlemi* between the years of 1925 and 1927. Bahadır (2005, p.14) states that no magazine was released during the forty years from when *Tabiat Âlemi* was closed in 1927 until TÜBİTAK published a magazine named *Bilim ve Teknik (Science and Technique)* in 1967. Arca (2004, p. 51-52) describes this period as the 'dark age' of popular science in Turkey. In this forty-year period, the only activity in the area of science communication was the publication of popular science books by commercial publishers and the ministry of education. However, according to a study by Orhan Bursalı, almost 98 percent of popular science books that were published from 1920 to 1998 had been translated from other languages.

The importance that Atatürk gave to science and education continued with the university reforms in 1933. Daru'l Fünun (Ottoman University), which was founded in 1863, was transformed into Istanbul University during a two-year period on the grounds that it could not keep up with the Republican revolutions (Kazdağlı, 1998; Türkcan, 1999, p. 471). The Higher Engineering School was initially affiliated with Istanbul University as a faculty after its foundation in 1933 but was later transformed into Istanbul Technical University in 1944 by uniting the Architecture and Communication branches (Türkcan, 2013, p. 424). Other institutions followed the establishment of Istanbul Technical University, with Ankara University in 1946, Atatürk University in 1953, Karadeniz Technical University and Ege University in 1955, Middle East Technical University in 1956 and Hacettepe University in 1967.

In addition to the university initiatives of the Republic, many scientific research centers and institutes were established in order to carry out scientific studies. However, these research centers and institutes were mostly intended to conduct research in agriculture and animal husbandry and also to train researchers. In addition, mining enterprises, aircraft, textiles, cement,

iron and steel factories were established in different cities in order to encourage the growth of industry following the İzmir Economy Congress held in 1923.

The economic hardship that was experienced during the Second World War also led to significant stagnation in the fields of science and industry. Turkey aligned itself more closely with the USA in foreign policy after World War II due to economic and political conditions imposed by the war. This geopolitical shift was also manifest in the postwar economic development model adopted by Turkey, which was predicated to a large extent on American guidance and which produced long-term changes in the orientation of the society. In terms of economics, Turkey assumed a more liberal posture, becoming dependent on the private sector and external resources. This new economic model was closely tied to the twin developments of the Truman Doctrine and the Marshall Plan and these undoubtedly contributed to Turkey's NATO membership in 1952 (Türkcan, 2013, p. 429). The Republic's statist industrialization policy and the large industry initiatives were likewise deeply affected by Turkey's inclusion in NATO in 1952 and the ensuing political and economic conditions stemming from the Marshall Plan, which included economic aid to Western European countries, as well as the military implications of the Truman Doctrine. Afterwards, Turkey was directed toward new economic goals such as more limited industrialization and investment in the agricultural sciences, unlike the large-scale industrialization initiatives of the 1930s (Uğural, 2016, p. 127). Had it endured, this orientation might have led Turkey to remain an agricultural country in the long term instead of developing its scientific and technological infrastructure.

Formulating science and technology policies as a multifaceted academic research program became possible for the first time in the early 1960s. Within the scope of the planned economy period that was brought into force after the 1960 military coup, 1 billion and 142 million Turkish Liras were allocated for scientific research as part of the first Five-Year Development Plan (1963-1967). In detail, the budget included 170 million TL for general scientific and technological research, 225.6 million TL for social and economic research and 764.4 million TL for research of determined sector schedules. Moreover, the Scientific and Technological Research Council of Turkey (TÜBİTAK)[1] was founded in 1963 in order to implement a science policy throughout the country; to stimulate, arrange and coordinate research in the natural sciences, the fundamental and applied sciences; as well as to strengthen the collaboration between these disciplines (Türkcan, 1999, p. 255).

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[1]    The name of the institution was changed as "Scientific and Technological Research Council of Turkey" with the 5376 numbered Law of which effective date is 7 July 2005.

The foundation of TÜBİTAK was of great significance in that it led to the institutionalization as well as the popularization of science. Another goal of TÜBİTAK has been to publish popular science articles. It has aimed to convey scientific information to the public with the publication of a monthly magazine called *Bilim ve Teknik (Science and Technique)* beginning in 1967. As a result of these initiatives, the public's interest in scientific developments increased and the newspapers began to devote more importance to science and technology news. An important publication in the context of science popularization and science communication is a magazine named *Cumhuriyet Bilim Teknik (Cumhuriyet Science and Technique)* which was published weekly in 1987 under Orhan Bursalı's editorial directorship. Following the last publication of the science and technology magazine supplement in March 2011, a new magazine named *Herkese Bilim Teknoloji (Science Technology for Everyone)* was established under Orhan Bursalı's editorial consultancy from 2016.

A monthly magazine named *Bilim* Çocuk *(Science Kid)* and published by TÜBİTAK from 1987 was an important development in science communication in that it was addressed to children and based on the recognition that children can contribute to the world of science. This magazine has sought to arouse the desire to do research, ask questions, wonder and read, revealing that science is a part of everyday life. While TÜBİTAK has attempted to ensure that children over 3 years of age are engaged with science through a magazine called *Meraklı Minik (Curious Little)* from 2007, another free of charge electronic magazine named *Bilim Genç (Science Youth)* is available for teens over 12.

The foundation of TÜBİTAK represented a vital breakthrough in the development and planning of science and technology in Turkey. However, there had been unplanned and unscheduled policies prior to the 1983 formation of "Turkish Science Policy (1983-2003)" (Uğural, 2016, p. 130). "Turkish Science Policy (1983-2003)" has great importance for its being the first official and complementary science policy document but this report was not implemented thoroughly. Elmacı (2015, p. 67) argues that the reason for this was insufficient adoption by state and public layers and inadequate overall support.

Turkey embraced a neoliberal market economy following the stabilization decisions of January 24, 1980. Since that time, the Turkish media has undergone a profound transformation, evolving into a monopolistic entity based entirely on a commercial logic. The proliferation of commercial radio and television broadcasting in the 1990s greatly altered the media landscape in the country significantly. This change has brought about a change and transformation in terms of the representation of science in the

media. In parallel with the increase in the number of media organizations, the amount of science content in the media has increased significantly. Despite this quantitative increase, the quality of science news stories has gradually decreased. Issues such as monopolization, media coverage of multinational corporations, commercialization of the media, and the quest for ratings over and above concerns over 'accuracy' have led to the rise of a more sensationalistic brand of news and wholesale tabloidization. As a result of this, as in all areas of journalism, the news value of science news stories declined throughout the 1980s. Those reports which are sensational, surprising, exaggerated or absurd have become featured as the 'news'. In this period, as Nelkin (2004, p. 16-17) points out, imagination and sensational reporting came to the fore in science journalism, and commercial competition preceded scientific knowledge. Infotainment techniques were adopted in science news in order to draw attention and this generally distorted the principle of accuracy and transformed newsworthiness into fun worthiness. For this reason, scientific knowledge transfer is often lacking, and sensationalistic features come to the fore instead of scientific realities.

## The Current View of Science Communication in Turkey

Today, much of the science communication that is carried out in the country is overseen by TÜBİTAK. The most popular scientific journals in the country are published by TÜBİTAK. In addition, many popular science books for different age groups have been published by this institution. In the field of popular science journalism, there are other journals that are published outside of TÜBİTAK. *Popüler Bilim*, *Bilim ve* Ütopya, *Bilim ve Gelecek*, *Popular Science*, *How It Works*, *National Geographic Türkiye*, *Herkese Bilim Teknoloji* are widespread popular science journals.

In addition to its role in popular science publishing, TÜBİTAK also conducts science communication through other means. For instance, science centers have been established in some cities within the scope of TÜBİTAK's science and community support programs. In these science centers, workshops, educational camps, and science festivals especially for children and young people are organized. Also, these centers contain science exhibitions, film screenings, and planetariums. Besides scientific interviews, science fairs and festivals that are carried out by the Department of Science and Society of TÜBİTAK, the support and cooperation of universities, local administrations, and non-governmental organizations aim to introduce science to the public through science fests, festivals and competitions. However, it should be noted that such activities are usually carried out in large cities and therefore reach a limited audience. Furthermore, there are serious shortcomings with respect to science communication education in Turkey. There are currently no undergraduate or graduate

programs providing science communication education directly at any of the nation's universities. However, in the faculties of communication that raise media professionals, the lessons on the production of science content are extremely limited. Sixty-three of the universities affiliated with the Council of Higher Education (YÖK) have a communication faculty. Only thirteen of these faculties offer any course related to science communication. Moreover, all these courses, which include "Science Journalism, Science Reportage, Science and Technology Journalism, Science and Technology Reportage, Health-Science and Technology Journalism, Science and Technology Journalism, Health Journalism, Health Communication, Health Journalism" are electives. Although they are not directly related to science communication and science journalism, there are graduate and doctoral programs in the "Department of Science and Technology Policy Studies" at Middle East Technical University, a graduate program in the "Department of Science and Society Studies" at Ankara University, and a graduate program in the "Department of Science, Technology and Society" at Istanbul Technical University.

The number of academic studies carried out in the field of science communication in Turkey is quite limited. Only 13 academic studies on science communication and science journalism could be located. Seven of the current studies are master's or doctoral theses, one of them is a book, four of them are articles and one of them is a declaration presented in an international symposium. These studies and topics are as follows:

Ekin Arca (2004) focuses on the interaction in the creation of communication models between scientists and journalists in her master's thesis titled "Science Communication Model of Turkey: The Importance of the Role of Scientific Journalism". In this study, he proposed an interactive science communication model instead of a hierarchical science communication model.

İrfan Erdoğan carried out a study, which was supported by TÜBİTAK, titled "Journalism and Science Communication in Turkey" in 2007. The study, which is published in the form of a book, evaluated the organizational and contextual structure of journalism in the context of science communication by interviewing daily newspaper owners/managers in Turkey.

Çiler Dursun's (2010) study is an article titled "The Development of Science Communication in the World and Different Approaches: From Science for Society to Science in Society. The author examined different approaches in science communication comparatively and questioned the context of this approach in Turkey.

Persude Erdem (2011) examined the status of nationalist discourse in science news in the written press in Turkey in her master's thesis study titled "Nationalist Discourse in Science News in the Written Press in Turkey".

Sema Becerikli (2013) tried to present a general profile of journalists who are engaged in production related to science, technology and innovation news in Turkey and tried to determine the tendencies of journalism in this subject by discussing these journalists' practices of making news in her article titled "Thinking on Profile of Science, Technology and Innovation Reporters and Their Making News Practice in Turkey".

Onur Berk Arslanoğlu (2014) explored the boundaries of the gatekeeping action applied by science journalists in his master's thesis titled "Gatekeepers of Science, Science Journalism from The View of Journalists in Turkey". He examined the factors affecting the subject choices through interviews with journalists who were engaged in science news in Turkey's mainstream media.

Seçil Utma (2015) questioned perceptions of science journalism in Turkey and evaluated the way in which science news was presented in the written press in her doctoral thesis titled "Science Communication and Science Journalism: Ege University News Agency for Instance, for The Production of a Study of University Science News".

Oğuz Ömer Eser (2015) set forth how scientific facts and science news in the basic newspapers and national publications were undermined by the lack of expertise, populism and commercial logic in his graduate thesis titled "The Disruption of Reality in Science Journalism".

Mehmet Emir Yıldız (2015) examined popular science publishing specific to popular science journalism in terms of critical political economy in his master's thesis titled "Critical Political Economy Analysis of The Popular Science Magazines in Turkey: The *'Bilim ve Teknik'* and *'Popular Science'* examples".

Sevinç Gelmez Burakgazi (2017) examined and evaluated national and international studies that have discussed science communication since 2000 in Turkey in her article titled "Science Communication in Turkey in The Light of Critical Events, Politic Documents, Reports and Research".

Onur Dursun (2018) examined the status of science journalism in Turkey by analyzing the science news in *Cumhuriyet, Hürriyet, Milliyet, Sabah* and *Sözcü* newspapers in his article titled "Hegemony of Popularization's and Positive Sciences in Science Journalism".

Gülsen Saray (2018) examined the Turkish press's stance on nuclear energy, public disclosure success, 'news-representation' and 'news-reality' relations in the context of science journalism and science communication during Turkey's transition to nuclear power projects between 1945-2016, in her doctoral thesis titled "Science Journalism in Turkey: Analyses of Nuclear Energy News Reporting of the Press Between 1945-2016".

Finally, Salih Tiryaki (2018) reviewed a total of 635 news in his declaration titled "Presentation of Science and Technology News in Internet Newspapers" through the following websites: www.haberturk.com,www.trthaber.com,www.internethaber.com and www.gazetevatan.com under the rubric of science and technology.

## EVALUATION AND CONCLUSION

In many ways, Turkey was late to embark upon a concerted strategy of science communication. Although science news was part of the Ottoman and Early Republican Era press, carrying out science communication activities in a programmatic and organized way became possible only with the foundation of TÜBİTAK in 1963. Prior to this, activities were disjointed and disorganized and could not extend beyond the mere aim of transmitting science news to the public.

The course of scientific development was decisive in this delay. Institutionalization of science in Turkey, which has lagged far behind the West since the Ottoman Empire, is long overdue. The first step in this process of institutionalization was taken in 1963. In addition, the importance of science communication as a field that needed to be supported and regulated through public policies was recognized only belatedly, with knock-on effects to related science and technology policies. The first official and holistic science policy was put forward in 1983, but unfortunately, the measures proposed in this document could not be implemented.

Following the establishment of TÜBİTAK, several measures were taken in the area of science communication, especially in relation to popular science publishing, but these steps remained limited. The notion that an interactive and democratic relationship between science and the public should be encouraged was only mentioned in the 'National Science and Technology Policies: 2003-2023 Strategy Document' published by TÜBİTAK in 2004. This document underscored the importance of creating awareness in social strata as one of its strategic goals, stating that *"social perception and support is the biggest driving force behind the activities to be carried out to create the desired future"*. Even the science centers that have existed

in Western countries since the 19th century as important venues for science communication could only be established in the last 25 years in Turkey.

Science communication as an academic research field is an area introduced belatedly and not yet institutionalized in Turkey. Academic studies have started to be conducted in this field within the last 15 years, but these have not yet reached an enough level in terms of both quantity and quality. Most of the limited number of studies that do exist approach science communication from the perspective of science journalism and other important dimensions of science communication are neglected. In addition, science communication education at the academic level has not yet been institutionalized. In this respect, there are serious deficiencies in the training of professionals who will conduct science communication activities and science journalism.

There are also problems in the structure of the media, which is one of the most important actors for science communication, and in science journalism practices as well. The media, after all, represents one of the only avenues through which the public can acquire scientific knowledge easily and cheaply. However, the capitalist relations of production and the overriding profit motive remain the chief determinants with respect to the content of science journalism. Studies of science journalism reveal that the news media in Turkey affords little coverage to science news; and existing news concentrates on areas such as medicine and the natural sciences, ignoring other important disciplines (Dursun, 2018). There are very few professional science journalists/writers featured in the Turkish media. Science news is conducted by journalists/writers who are not trained in this field or by reporters working in different departments. The reason for this is the apparent lack of interest in science news. In addition to this, news coverage that is lacking basic scientific competence and journalistic ethics is commonplace due to understaffing of these media organizations and an excessive workload. Another problem is that the media is influenced by politics, and scientific developments are communicated through ideological and political filters (Erdoğan, 2007; Arslanoğlu, 2014). Most importantly, science journalists do not yet have a strong awareness of what science journalism is and what is its scope and they often assume science news is simply news that 'fills the gap' (Becerikli, 2013).

With respect to all these various problems and deficiencies, the role of political authorities, public and private institutions and organizations, universities, and the media as policy makers and practitioners in the field of science communication is of great importance. Nevertheless, the public's indifference to the policies and decisions made in the name of science and their unwillingness to participate must also be called into question.

The low scientific literacy in the country as well as the lack of democratic participation channels in Turkey undoubtedly plays a role. According to the Eurobarometer 2010 Science and Technology Report, Turkey was the country wherein the interest in new scientific and technological developments was the lowest by 51% among the European Union member and candidate countries (Eurobarometer, 2010).

A comprehensive science communication agenda has yet to be developed in Turkey on a par with the West. If the report of the Royal Society in England was indeed a turning point in that country's approach toward science communication, the meaning and significance of science communication in Turkey has yet to be fully appreciated. Considering the nature of the activities in communication sciences in Turkey, it is possible to say that still the approach of 'public's understanding of science' is prevalent. Unfortunately, the social, cultural, and political environment in the country is not especially conducive to establishing better public engagement with the science or promoting 'science in society'. In order to remedy this situation, policies should be crafted which can engender public interest in science and help to spread scientific literacy. What these policies are and how they should be produced may be the subject of another research.

# REFERENCES

Arca, E. (2004). *Science communication model of Turkey: the importance of the role of scientific* (MA Thesis). Université de Strasbourg, France.

Arslanoğlu, O. B. (2017). *Bilimin eşik bekçileri: Türkiye'de gazetecilerin gözünden bilim haberciliği* (MA Thesis). İstanbul Bilgi Üniversitesi, Türkiye.

Atatürk Research Center. (2006). *Atatürk'ün söylev ve demeçleri II.* Ankara: Atatürk Kültür, Dil ve Tarih Yüksek Kurumu.

Bahadır, O. (2001). *Cumhuriyet'in ilk bilim dergileri ve modernleşme.* İstanbul: İzdüşüm Yayınları.

Bahadır, O. (2005). *Erken cumhuriyet ve bilim.* Ankara: Türkiye Bilimler Akademisi.

Bauer, M. W. (1998). La longue durée' of popular science 1830-present. In Deveze-Berthet, D. (Ed.), *La Promotion De la Culture Scientifiqueet Technique: Ses Acteur et Leurs Logic, Actes du Colloque des 12 et 13 Decembre 1996* (pp.75-92). Paris: L'Universite Paris Diderot.

Bauer, M. W. (2008a). Paradigm change for science communication: commercial science needs a critical public. In Cheng, D. et al. (Eds.), *Communicating Science in Social Contexts. New Models New Practices* (pp.7-26). Berlin: Springer Science + Business Media B.W.

Bauer, M. W. and Gregory, J. (2008). From journalism to corporate communication in post-war Britain. In Bauer, M. W. and Bucchi, M. (Eds.), *Journalism, science and society, science communication between news and public relation* (pp.33-51). New York: Routledge.

Becerikli, S. (2013). Türkiye'deki bilim teknoloji yenilik habercilerinin profile ve haber yapma pratikleri üzerine düşünmek. *İstanbul Üniversitesi İletişim Fakültesi Dergisi, 45,* 1-18.

Bucchi, M. (2008). Of deficits, deviations and dialogues theories of public communication of science. In Bucchi, M. and Trench, B. (Eds.), *Handbook of Public Communication of Science and Technology* (pp.57-76). London: Routledge.

Bucchi, M. and Trench, B. (2016). Science communication and science in society: a conceptual review in ten keywords. *TECNOSCIENZA (Italian Journal of Science & Technology Studies),7* (2), 151-168.

Burns, T. W., O'Connor, D. J. and Stocklmayer, S. M. (2003). Science communication: a contemporary definition. *Public Understanding of Science, 12*(2), 183-202.

Bursalı, O. (1997). Türkiye'de bilim gazeteciliği. *Bilim ve Teknik Dergisi, 30* (350), 22.

Cankaya, M. (2018). Osmanlı'dan Cumhuriyet'e sanayi, bilim ve teknoloji yayıncılığı örneği: Fen ve San'at mecmuası. *ERDEM* İnsan *ve Toplum Bilimleri Dergisi, 74,* 5-34.

Dunwoody, S. (2008). Science journalism. In Bucchi, M. and Trench, B. (Eds.), *Handbook of Public Communication of Science and Technology* (pp.15-26). London: Routledge.

Dursun, Ç. (2010). Dünyada bilim iletişiminin gelişimi ve farklı yaklaşımlar: Toplum için bilimden toplumda bilime. *Kurgu Online International Journal of Communication Studies, 23*(1), 1-35.

Dursun, O. (2018). Bilim gazeteciliğinde popülaritenin ve pozitif bilimlerin hegemonyası. *İleti-ş-im,* 29, 83-114.

Dursun, Y. (2009). Geçmişten bugüne Türkiye'nin bilim ve teknolojide katettiği mesafe. *Ankara Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 1*(1), 36-69.

Elmacı, İ. (2015). Bilim politikası çalışmalarında bütünsellik arayışı ve Türk bilim politikası 1983-2003. *Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Dergisi, 55*(1), 55-68.

Erdem, P. (2011). *Türkiye'de yazılı basında bilim haberlerindeki milliyetçi söylem* (MA Thesis). Ankara Üniversitesi, Türkiye.

Erdoğan, İ. (2007). *Türkiye'de gazetecilik ve bilim iletişimi, yapısal özellikler, sorunlar ve çözüm önerileri.* Ankara: Gazi Üniversitesi İletişim Araştırmaları Merkezi.

Eser, O. Ö. (2015). *Bilim gazeteciliğinde gerçekliğin bozumu* (MA Thesis). İstanbul Üniversitesi, Türkiye.

Eurobarometer. (2010). *Science and technology report.* Available at: http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_340_en.pdf (accessed 02 April 2019).

Gelmez Burakgazi, S. (2017) Kritik olaylar, politik dokümanlar, raporlar ve araştırmalar ışığında Türkiye'de bilim iletişimi. *Selçuk İletişim, 10*(1), 232-261.

Giritli, İ. (1987) Atatürkçü çağdaşlaşmada bilim ve teknoloji. *Atatürk Araştırma Merkezi Dergisi*, *3*(8), 359-370.

Göpfert, W. (2008). The strength of PR and the weakness of science journalism. In Bauer, M. W. and Bucchi, M. (Eds.), *Journalism, Science and Society, Science Communication Between News and Public Relation* (pp.215-226). New York: Routledge.

Greco, P. (2013). Science and society. In Bruyas, A. M. and Riccio, M. (Eds.), *Science Centres and Science Events, A Science Communication Handbook* (pp.15-25). *İtalia:* Springer-Verlag.

Gregory, J. and Miller, S. (1998). The public understanding of science. In Wilson, A. (Ed.), *Handbook of Science Communication* (pp.3-16). UK: IOP Publishing.

Gregory, J. and Miller, S. (2010). *Science in public: communication, culture and credibility.* Sydney: Assessible Publishing Systems Pty Ltd.

Hughes, J. (2008). Insects or neutrons? Science news values in interwar britain. In Bauer, M. W. and Bucchi, M. (Eds.), *Journalism, Science and Society, Science Communication Between News and Public Relation* (pp.11-20). New York: Routledge.

Kazdağlı, G. (1998). *Atatürk ve bilim.* İstanbul: İnterpro Yayınları.

Koloğlu, O. (1997). *Halka doğru bilim.* İstanbul: Türk Bilim Tarihi Kurumu Yayınları.

Nelkin, D. (1994). *Bilim nasıl satılır.* İstanbul: Şûle Yayınları.

Pitrelli, N. (2003). The crisis of the "Public Understanding of Science" in Great Britain. *Journal of Science Communication* 2(1), Available at: https:// jcom.sissa.it/sites/default/files/documents/jcom0201%282003%29F01.pdf (accessed 02 April 2019).

Saray, G. (2018). *Türkiye'de bilim gazeteciliği: 1945-2016 arasında yazılı basında yeralan nükleer enerji haberlerinin analizi* (PhD Thesis). Gazi Üniversitesi, Türkiye.

Schönbach, K. (2000). Does tabloidization make german local newspapers successful? in sparks, C. and Tulloch, J. (Eds.), *Tabloid Tales: Global Debates Over Media Standards* (pp.63-74). Lanham, MD: Rowman and Littlefield.

Short, D. B. (2013). The public understanding of science: 30 years of the Bodmer report. *School Science Review, 95*(350), 39-44.

Tiryaki, S. (2018). İnternet gazetelerinde bilim ve teknoloji haberlerinin sunumu. *Uluslararası Dijital Çağda İletişim Sempozyumu*, Mersin, Türkiye, 18-19 October 2018.

Treise, D. and Weigold, M. F. (2002). Advancing science communication: a survey of science communicators. *Science Communication, 23*(3), 310-322.

Trench, B. (2012). Vital and vulnerable: science communication as a university subject. In Schiele, B., Claessens, M. and Shi, S. (Eds.). *Science Communication in the World: Practices, Theories and Trends* (pp.241-258). Dorderecht: Springer.

Trench, B. and Bucchi, M. (2010). Science communication, an emerging discipline. *JCOM, 9*(3), C03, Available at: https://jcom.sissa.it/sites/default/ files/documents/Jcom0903(2010)C03.pdf (accessed 11 March 2019).

Türkcan, E. (1999). Türkiye Cumhuriyeti'nin 75. yılında bilim ve teknoloji politikaları 1923-1998: tarihi bir perspektif. *Türkiye Cumhuriyeti'nin 75. Yılında Bilim "Bilanço 1923-1998" Ulusal Toplantısı II. Kitap* (pp.245-264). Ankara: TÜBA Yayınları.

Türkcan, E. (2013). *Tarihten teknolojiye.* İstanbul: Destek Yayınları.

Uğural, C. (2016). Cumhuriyet'in bilim ve teknoloji politikası (1923-1950). *Dört Öğe Dergisi, 5*(10), 113-132

Utma, S. (2015). *Bilim iletişimi ve bilim gazeteciliği: Ege* Üniversitesi *Haber Ajansı örneğinde üniversitelerde bilim haberlerinin üretilmesine yönelik bir inceleme (*PhD Thesis). Ege Üniversitesi, Türkiye.

Weingart, P. (2012). The lure of the mass media and its repercussions on science. In Rödder, S., Franzen, M. and Weingart, P. (Eds.), *The Sciences' Media Connection –Public Communication and its Repercussions* (pp.17-32). Dordrecht/ Heidelberg/ London/ New York: Springer.

Yıldız, M. E. (2015). *Türkiye'de popüler bilim dergilerinin eleştirel ekonomi politik* çözümlemesi*: 'Bilim ve Teknik' ile 'Popular Science' örnekleri (*MA Thesis). Anadolu Üniversitesi, Türkiye.

GASTRONOMY AND
SUSTAINABILITY

CHAPTER

12

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## INTRODUCTION

Tourism, in most general sense, refers to and embodies the individuals' short or long term travels from their permanent resident places to different regions in order to rest, have fun, learn and gain different experiences. Today, the opportunities on transportation, communication and knowledge acquisition improve in the light of technological developments, which allow individuals to have more different experiences for lower prices. This situation brings along an increase in the interest in different types of tourism. Gastronomy tourism, which can be defined as the most delicious tourism activity, is a sub-genre of tourism that can be explained, at its simplest, as experiencing the local tastes in the visited regions. Gastronomy tourism allows tourists to experience the visited regions both visually and sensually. Therefore, gastronomy tourism is a tourism activity gaining popularity day by day. However, the tourism mobility revived by the increasing demand on different types of tourism may harm natural environment and the sustainability of cultural element as a result of the excessive use of capacities. Here, the strong interaction between the concept of sustainability and tourism comes to forefront. Sustainable tourism mobility will not only protect and maintain ecological, cultural, economic and social order but also will ensure the elements subject to tourism to be transferred to next generations as they are.

This chapter will explain the gastronomy tourism, which is a popular tourism activity, the global importance of the concept of sustainability and the requirements for developing sustainable tourism awareness.

## 1. Gastronomy

Tourism is an important activity that allows individuals to move away from the daily life stress and gain new experiences. Along with its benefits such as relaxation, learning and entertainment, its contribution to the economies involved in this activity is also of great importance. Tourism ranks among the industries that bear great economic importance in many countries across the world. Its importance for economic growth is undeniable. Thanks to technological developments and globalization today, individuals have the opportunity to be involved in tourism activities and have different experiences more often, which has resulted in the emergence of different types of tourism activities. Gastronomy is one of these different tourism experiences (Gheorghe et al., 2014: 12).

Etymologically, gastronomy is derived from the combination of the word ''gastros'' which means stomach and the word ''gnomos'' meaning knowledge or law in Greek. Gastronomy mostly refers to the art of food and beverage and qualified food. However, these elements only explain a

part of the science and art of gastronomy. Gastronomy is also interested in the relationship between culture and food. A person interested in gastronomy also becomes highly interested in tasting, preparing, experiencing, researching, discovering, examining, understanding and writing about food and beverages. The fields directly related with gastronomy can be listed as chemistry, literature, biology, geology, history, agriculture, anthropology, music, philosophy, psychology, sociology and nutrition. In this regard, gastronomy can be expressed as an interdisciplinary activity (Kivela & Crotts, 2006: 354-355). Figure 1 illustrates the relationship between gastronomy and the other branches of fine art and science.



**Figure 1:** *Gastronomy and Related Branches of Fine Art and Science*

Gastronomy has a very wide scope embodying the production of food and the methods related with the production process; storage, transport and preparation by processing, presentation after cooking, chemistry, digestion and physiological effects, local food preferences and options, and food-related customs and traditions (Jong et al., 2018: 134).

Food is one of the most important matters that tourists take into consideration in their destinations preferences. In a way, every tourist is a traveling gourmet. In this context, three elements have been emphasized in defining the gastronomy. These are as follows (Sandybayev, 2016: 2);

- Gastronomy is a comprehensive cuisine created by generations of cooks as a result of inertia and delicate processes. This fact indicates that gastronomy has deep historical roots. The gastronomic structure of a region is an important mirror reflecting the local communities' social structure and cultural characteristics from past to the present. There are various methods of preparation and presentation of a specific food or beverage in

different regions. For instance, a vegetable can be consumed as an appetizer with olive oil in some regions, while it can be combined with meat in another region and served as a main dish. Each region describes the way of preparation as their traditional presentation. This is an outcome of the way local people of the region have processed the food or the drink from past to present. It is also an indicator of the local culture and interregional differences.

- Gastronomy examines the physical components of food including their quality. It also seeks to better understand the processes starting from food production to consumption. In fact, this element reveals the fact that the science and art of gastronomy is not only about eating and drinking habits and presentation of food. Gastronomy, as a scientific field, is also concerned with rendering the food and beverages high quality and healthier with the help of increased public awareness. For instance, the production and consumption of food with GMO (genetically modified organisms) content increase day by day. Intensive use of GMO raw materials in food preparation may have negative consequences for human health in the medium and long term. This has led to an increase in the importance of organic production methods and organic products. As a result, organic cuisines have started to emerge as a new trend. Gastronomy attempts to determine the products and preparation processes that will yield the best results for human health by the better identification of the physical and chemical components of the ingredients used for food production.

- Gastronomy is a source of food, inspiration and pleasure.

Gastronomy is a source of food, inspiration and pleasure. This element sheds light on the relationship of gastronomy with tourism. It is an indicator of why gastronomy, which has come to the forefront among the tourism needs and alternatives that have significantly varied in recent years, has become so popular. Different flavors attract the attention of people and experiencing different tastes satisfy and motivate them through changing their perspectives on new things, and as a result, people feel satisfied with their experiences. Hence, the popularity of gastronomy tourism increases day by day.

## 2. Gastronomy Tourism

Up to ten years ago, the terms of tourism or vacation used to bring into mind the trio of sea-sand-sun. However, with the increasing technological developments and opportunities and the demand on diversity and adventure, the definition of tourism has transformed into excitement-ed-

ucation-entertainment. Gastronomy is one of the important sources that motivate people in this new trend tourism (Çetin, 2017: 102).

Consumption is an inevitable and inseparable part of all individuals as well as tourist experiences. When tourists visit a region to enjoy their leisure time, they do not only benefit from the visual beauties in the region. They also taste local flavors. Tasting local food enables a region to be experienced not only at the intellectual level but also at the sensory level. In other words, while tourists gain intellectual knowledge and experience thanks to the visual information they acquire in the regions they visit, they also experience sensory experiences by tasting the flavors in the region (Shenoy, 2005: 1).

The importance of the relationship between food and tourism is undeniably great. Each region has a different level of tourism attractiveness and equipment. Local delicacies and beverages also play a role for the region to become a touristic attraction. Food culture is an important factor in increasing the number of tourists visiting the region and the sustainability of their interest. Local flavors can be listed among the tourism resources of a region. In addition, a region can also utilize local food and beverages directly as a tourism and marketing tool. In other words, regions can define and maintain their tourism capacity and planning based on food (Sandybayev, 2016: 2). Taking into consideration the importance the tourists place on tasting the local delicacies of the destinations they visit, it is not surprising that gastronomy tourism comes to forefront as a main travel motivation and type.

Approximately one third of the budget allocated by individuals to vacation is spent on food and beverage consumption. As a matter of fact, while planning their vacations, individuals search and pin the places they may taste the local delicacies of the regions they are going to visit. This is an indicator of the importance of local cuisine, and of the fact that gastronomy transforms into a tourism phenomenon. Gastronomy tourism is a type of travel that aims entertainment and allows recreational experiences in the regions rich in gastronomical sources.

The scope of gastronomy tourism embodies all activities including the primary or secondary producers of gastronomic products, gastronomy festivals, fairs, cooking shows, food tasting or any food-related activity. Gastronomy tourism strives to find a perfect balance between the fact that tourists have useful and pleasant experiences on local cuisine and that their daily need for food is fulfilled. Tourists' consumption is an inseparable part of touristic experiences such as visited places, involvement in different tradition and customs, and tasting local food (Gheorghe et al., 2014: 13-14).

Gastronomy tourism can be defined as the trips organized with the purpose of preparing food and drinks, tasting, having unique experiences of different cuisines, having fun and learning. As it is understood from the definition in question, gastronomy is not solely a food-oriented science, art and tourism type. It is also interested in region-specific drinks and all culinary components (Kivela & Crotts, 2006: 356).

Gastronomy tourism is a phenomenon that provides tourists with unique experiences and offers all the natural, cultural and traditional components of a region. With gastronomy tourism, tourists find the opportunity to experience all stages of preparation, presentation and tasting of the food specific to the regions they visit. The elements highlighting the importance of gastronomy tourism are listed as follows (Singsomboon, 2014: 17-19):

- To raise awareness among tourists about the importance of the culture in the regions they visit,

- Being an important tool in tourism marketing,

- To support agricultural, economic and regional development of the regions subject to gastronomy tourism,

- Providing competitive power in tourism industry,

- To become a regional, national and global development index in the framework of tourism,

- To render tourism activities more valuable by increasing the added value of tourist experiences,

- To help host regions promote and preserve their local values.

Gastronomy tourism offers individuals the opportunity to learn and experience while having a pleasant time. In recent years, with the increasing interest in gastronomy tourism, the regions hosting tourism activities have also become aware and started to protect cultural, historical and local tastes in the region. In this regard, they promote and, in a sense, register the local food by presenting it within the context of tourism. Individuals getting familiar with new tastes and their historical background get a different and higher satisfaction from the food or beverage. Any information about this new flavor will increase the recognition and revisit of the host region. On the one hand, gastronomy offers tourists with new satisfactory experiences, and on the other hand, regional sustainability and development are reinforced.

## 3. The Concept of Sustainability and General Framework

Sustainability is mainly related to the concepts of time and permanence. The concept of sustainability is the fact that a structure (social, environmental, cultural, political etc.) is economically feasible, socially fair and equal, culturally acceptable, and ecologically safe and sound. These can be achieved only through proportional and fair consumption and protection. The sustainability of available resources is possible only if they are of renewable nature or consumed carefully (Slow Food, 2013: 2).

The concept of sustainability is an element that is closely related to social responsibility and emerges as a result individuals and institutions fulfill their social responsibilities. Therefore, it is likely that the terms are used interchangeably. Corporate social responsibility is a concept that arises and is used mainly in the context of the social responsibilities of enterprises and legal entities. The most important part which differentiates sustainability from corporate social responsibility is its etymological origin in meaning. Sustainability is a concept that has emerged in response to destruction and devastation of natural life in the first half of the 20th century. Its examination in the context of enterprises has started by a process and reciprocal relationship that progress simultaneously with corporate social responsibility (Eccles & Krzus, 2010: 129). There is no sharp line that separates these two concepts from one another. Therefore, it can be claimed that sustainability is realized by the fulfillment of responsibilities.

Sustainability is a delicate balance between the economic developments and the negative impacts on the environment that may occur in the process of development in question. The common objective of not only the tourism industry but all other industries operating in economy structure is to provide continuous social benefits to ensure the sustainability and continuity of their activities. At the same time, it refers to the fact that the needs of future generations are taken into consideration while providing the benefit in question and gaining competitive advantage. In the simplest terms, sustainability can be defined as the symbiotic relationship between public welfare and a healthy natural environment (Middleton & Hawkins, 1998: 123).

The use and emergence of the concept of sustainability in the context of institutions and enterprises have been related to business competition. The concept of sustainability, which is used within the framework of competitive advantage, emphasized the importance of competitive advantage for the survival of enterprises. However, enterprises may harm their business and natural environment while competing. The use of sustainability in the context of enterprises in all aspects has actually emerged with the purpose

of avoiding the damages to be caused by the enterprises under the influence of the motive of competition. Thanks to the concept of sustainability, enterprises have become a multi-faceted structure that operates within the framework of economic, social and environmental phenomena, rather than being a finance-oriented structure that acts solely for profit. Enterprises should also take into account the interests of the natural and social environment in which they operate. Otherwise, environmental negativities may lead to limitations in the activities of the enterprise and hinder the sustainability of the enterprise over time. Responsibilities undertaken by enterprises to minimize or eliminate the enterprise's negative impacts on the environment are the foundation of corporate sustainability. Enterprises' maintaining their production activities is possible to the extent they remain in harmony with the environment in which they operate (Eccles & Krzus, 2010: 131-133). Especially in the tourism industry, the harmony in question comes to more prominence. Since tourism enterprises would attract less number of customers after the destruction of the natural, social and cultural environment which they operate in, the future and sustainability of the enterprise will become uncertain. To avoid it, they have to fulfill all their responsibilities for the protection of the environment. In addition, they should ensure that the historical and cultural elements and gastronomy infrastructure of the region are accurately presented to tourists in order to prevent possible cultural and social corruption.

The increase in technological, economic and social opportunities as well as the increase in the number of conscious consumers have brought along the necessity for enterprises to fulfill their social responsibilities. Up to approximately 50 years ago, enterprises' main objective was to gain profit. For this purpose, they developed cost and return-oriented strategies and carried out their activities in such a framework which was not accessible by society. However, in the light of the social developments, it has started to be realized that the profitability of the enterprises cannot be ensured only with financial and closed circle strategies. Today, the operational sustainability and profitability of the enterprises have become proportionate with their social responsibility activities, as well as the financial strategies they adopt. Society which gains more awareness day by day has forced enterprises to act and work in a more sensitive way both on their own sustainability and on social and environmental sustainability. This situation plays an important role in the development of social and environmental sustainability activities and the establishment of sustainable environmental awareness. Enterprises operating taking into consideration environmental and social sustainability gain a two-sided advantage as they also ensure the sustainability of their own activities. Enterprises that are aware of this fact

are not only preferred more but also fulfill their responsibilities with the help of their contributions to the environment.

## 4. Sustainable Development

Sustainable development has emerged as one of the frequently used concepts with the growing importance of sustainability. Sustainable development as a concept was mentioned at first in the Brundtland Report (Joint Future Report), which was published in 1987, and was described as a limitation. According to the report, sustainable development refers to the non-absolute limits on human activities in the context of environmental, technological and economic opportunities. Poverty, which is regionally present throughout the world, is one of the obstacles hindering the sustainable development. In order for sustainable development to be realized effectively, the population and the growth rate of the population must be in harmony with the production capacity of the ecosystem. Thus, individuals will benefit from the natural environment in a fair way and prevent disproportionate resource use and ecological disasters (Brundtland, 1987: 16).

Sustainable development is a phenomenon that brings together all units, professional groups and individuals in all parts of the society. From the industrialist who operates for making profit and earns high income to the agricultural workers who have low wages and to the social service workers who supports equality, from the ones who carry out environmental protection activities to the politicians, all components of the society meet on a common ground on the necessity and importance of sustainable development (Gössling, Hall & Weaver, 2009: 8). While sustainable development affects all individuals, it is directly affected by the activities of the society. Therefore, the reciprocal relationship between the individual and sustainable development and the responsibilities of individuals' cannot be ignored.

Since the publication of the Brundtland Report, the concept of sustainable development has been reshaped and finalized in light of environmental, technological and social developments. Sustainable development can be described as the fact that individuals living in the present time rather prefer actively using all available resources in order to maximize their well-being, or protecting those resources so that future generations can make use of them, as well. In this context, sustainable development focuses on three elements as follows: economic development, protection of the natural environment and social equality (Dau, 2015: 18-19). Sustainable development argues that the elements of economic growth and environmental conservation are not only in harmony with each other but also are compulsory partners of one another. One cannot be successful in long run without the other (Harris et al., 2002: 36). The sustainable development

objectives which are set by the United Nations Development Program and pave the way for the vision for future strategies focus on three main matters. These are (UNDP Turkey) sorted as below;

- Elimination of poverty on global scale

- Protecting the planet, the common and only living space for humans

- All individuals and communities in the world live in peace, prosperity and  safety

Examining the concept of sustainability as a single component, it can be described as the maintenance of the positive elements embraced by the whole society. However, when the concept of sustainability is adapted to social development, particular uncertainties and expression difficulties may arise. Sustainable development can be considered as a more political concept. From this point of view, the fact that our needs are met without harming the ability of future generations to meet their needs allows the development to occur in a sustainable way (Scarpato, 2002: 137). All individuals and institutions are responsible for the realization of sustainable development. However, the tourism industry as a source of cultural and social interaction and the areas and institutions operating under the umbrella of this industry should pay more attention to the matter in question. Gaining economic advantage by motivating individuals to visit different destinations leads to disproportionate use of the natural environment and cultural heritage. Therefore, tourism enterprises are liable to ensure the protection and sustainability of the environment in which they operate while gaining economic advantage.

## 5. Sustainable Tourism

The concept of sustainable tourism was born as a result of the emergence of literature driven by the increase in the number of academic researches on the field of sustainable tourism between 1980 and 1990. Sustainable tourism can be expressed as applying the idea of sustainable development to the tourism industry, in other words, it refers to the tourism development. Tourism enterprises that wisely use their resources ensure the long-term survival of resources and guarantee their potential for attracting customers and for operational sustainability. In addition, they also fulfill their responsibility on ecological sustainability (Weaver, 2006: 10-11).

Sustainable tourism constitutes the infrastructure of tourism. It refers to operating within natural capacities in order to ensure the renewal of natural resources and to maintain their productivity in the present and future time. Sustainable tourism by nature can grow effectively and efficiently, taking

into account the existing accommodation capacity, the local population and the natural environment. At the same time, it does not neglect the contribution of people, communities, traditions, culture and lifestyles into the tourism experience. As a consequence of these perspectives, sustainable tourism acknowledges that the local community in the host region takes a share of the social and economic benefits of tourism activities (Ritchie & Crouch, 2003: 36).

Sustainable tourism refers to the conservation and improvement of the existing resources and opportunities for the future while meeting the current needs of the host region where tourists pay visits and tourism enterprises operate in. Resource management, which maintains important elements such as cultural integrity, ecological processes and balance, biodiversity and social structure while economic, social and aesthetic needs are fulfilled, is the predictor tool of sustainable tourism. Self-sustaining tourism indicates that tourism activities are carried out in an environmentally friendly manner, that the natural resources are consumed by effective management of production capacities, and that the substitution resource management strategies are implemented (Liburd & Edwards, 2010: 6-7).

From time to time, there may be conflicts between tourism advocates and nature conservationists. Tourism and nature are closely related to one another like parts of an integral whole. Therefore, they are depended on each other to remain in good condition. However, an unplanned increase in tourism activities and excessive use of natural resources may cause a breakdown in the ecological order. This situation not only elevates the destruction in nature and but also results in irreversible natural disasters and the loss of tourism potential in the region due to lack of touristic attractiveness. Consequently, both tourism industry and natural life suffer from severe damages (Budowski, 1976: 27). Therefore, sustainable tourism is of vital importance.

Budowski (1976) listed the activities for sustainable development to be carried out by the tourism authorities and economic units as follows (Budowski, 1976: 30-31);

- The tourism industry can provide financial investment and assistance to the environmentalist institutions and organizations that protect the environment, regardless of the state aid or within the framework of an economic plan, so that they maintain their own interests. With the driving force of the financial support, the environmentalist institutions will act more actively and be able to contribute to the conservation and sustainability of the regions which bear a significant tourism potential.

- It is necessary to create natural parks, protected areas and reserves in parallel with the increasing demand in the tourism industry. In this way, the unplanned and disproportionate use of nature and destruction in nature will be avoided, and the volume of tourism activities will increase.

- Further cooperation is required between the tourism authorities and the national parks and wildlife centers with regard to the planning of areas and the construction of hotels and related facilities. In this regard, the priority is on access routes.

- Competent authorities and conservative groups should prepare guidelines for the tourists visiting the destination, and thus, ethical and protective rules should be communicated to tourists.

- Tours and tourism facilities in contact with natural areas should provide schools, university students and similar groups with special discounted prices. In this way, tourism will be revived and groups will visit natural areas in a more controlled way.

- Tourism units should assist in the establishment and protection of interpretation and information centers linked to national parks and other natural areas.

- Touristic units should assist in the preparation and editing of the publications on natural resources and the qualifications of natural resources to inform public. These should enable tourists to understand the ecological functioning of natural parks, why zoning and long-term planning are necessary, and why some areas are not allowed for visiting.

- Touristic units can play a role in supporting education and training activities related to the tourism-protection relationship. For example, courses can be provided for the tourist guides taking tourists to specific areas and the staff in natural parks.

- The concept of sustainable tourism is related to all components of development, such as communities, environment and natural resources, economic systems, agriculture and conservation. Therefore, it can be claimed that sustainable tourism is important and necessary for sustainable development. For tourism to be region-specific or sustainable in general, it is important to embrace the following characteristics: (Scarpato, 2002: 138):

- Sustainable tourism acknowledges the importance and value of the host regions which constitute the basis for tourism,

- It identifies and applies advanced standards to ensure that individuals working in the tourism industry operate in better conditions.

- Sustainable tourism is environment and nature friendly. It develops awareness on the importance of ecological balance.

- The pace of development in sustainable tourism follows a low course in order not to harm the natural, cultural and social structure.

- Sustainable tourism provides an economic advantage for the hosting local region and the host communities in the region. It maximizes the economic return of tourism for the local community.

- Tourists are also aware of their responsibilities for sustainable tourism. The responsibilities of tourists for sustainable tourism are as follows: causing no harm while visiting the natural environment, awareness-raising by seeking information about the characteristics of the region to be visited, and learning the languages spoken in the region at a degree to suffice for tourism activities.

To ensure sustainable tourism is of great importance for national economies, organizations in the tourism industry, natural environment and local people. The development of such a multi-faceted approach will be effective in the development of the present and future generations. Sustainable tourism is important and even necessary for economy as well as for natural resources. Therefore, creating awareness on sustainable tourism and increasing the number of relevant studies should be considered as an inevitable requisite of the social, cultural and economic well-being of people.

## 6. The Importance of Gastronomy in Sustainable Tourism and Development

As the tourism industry constitutes one of the most important locomotives of the country economies, it expands globally more and more every single day. The number of tourism enterprises (in all scales and constructs) and the number of tourists travelling for touristic purposes increase every year. This situation poses a great danger to ecological structure and biodiversity due to the close relationship of tourism enterprises with the natural environment. Therefore, it has become an inevitable requisite for all tourism enterprises to strive for the sustainability of tourism. Otherwise, the gradual destruction and collapse of the global ecological systems, particularly the tourism industry, cannot be avoided (UNESCO, 8).

Despite of different expressions in various resources, what is common in the definitions of sustainable tourism is the emphasis on the use of nat-

ural resources in a "smart" and "balanced" way. This situation brings forefront the ecological, social and economic characteristics of tourism. The wise use of resources is related to the values of the parties involved in the subject matter. In this case, the value of resources can vary for producers, local people or tourists. Sustainable tourism can be considered as an attempt to reconcile the set of multifaceted values that lead to certain contradictions related to the environment. In this respect, sustainable tourism refers to a perspective rather than a definite and bounded definition (Tolvanen et al., 2005: 2).

Sustainable tourism is a concept which develops within qualitative process in a slow but planned way, focuses on the long term, and ensures the regional control. For tourists, it is characterized by a structure that provides individuals with mental rest, entertainment and learning, may lead them to learn the cultural and social language in the region, enables them to enjoy the region-specific experiences, and thus evokes the desire to repeat the tourism activity (Swarbrooke, 1999: 14-15). In this respect, its relation with gastronomy comes to the forefront.

Tourists are quite interested in local culture and flavors during the tourism experience. It indicates the importance of gastronomy in tourism sustainability. Pleasant food experiences and involvement in relevant activities not only increase the likelihood of revisiting the region but also allow for the recognition and spread of regional culture. It is one of the most important grounds for cultural exchange.

Nowadays, individuals may have larger free time thanks to advanced technology. Combined with the increase in income level, it enables individuals to tend towards new hobbies and areas to improve themselves and relax. In metropolitan cities, many people are interested in food programs and courses. There is also a growing interest in food and cuisines of different regions. Individuals who are interested in learning different cuisines give weight to practical experiences, in addition to the information they have gained in courses. With this purpose, they may be involved in gastronomic tourism activities as much as their economic conditions allow. Furthermore, it is an undeniable fact that individuals take into account the cuisine of the region while deciding on where to visit.

The fact that touristic destinations maintain their valuable historical and touristic attractions is of great importance for the sustainability of tourism. In this way, they will continue to be an attraction center and maintain their tourism potential. However, in order to fully satisfy the expectations of the tourists, it is important to bring into the forefront and effectively use the gastronomic elements that shed light on the cultural structure. In des-

tination preferences, tourists wonder also about the cuisine of the region they visit. If the host regions market their cuisines and regional specialties more effectively, they can increase the touristic preferability of the region. This enables the region to attract more tourists, generate higher tourism income, and develop further. A tourist who is satisfied with the landscape and local tastes in the visited destination is likely to intend to re-visit the region. At the same time, the tourists with high satisfaction will leave positive impressions on people in their social circles, and thus, will increase the recognition and preferability of the region.

Food and gastronomic elements have started to be considered as determinants of the sustainable development potential of tourism destinations. Gastronomy enhances the attractiveness and competitiveness of tourism facilities, local flavors and the places offering those local flavors. It also contributes to the economic, social, cultural and ecological sustainability of the regions and places where gastronomy activities take place (Rinaldi, 2017: 1).

To ensure sustainability in tourism, it is inevitable to highlight the unique characteristics of the regions, as well as protecting the natural resources. In this regard, gastronomy can be defined as one of the most important means of sustainable tourism.

## 7 Sustainable Gastronomy Tourism

Local flavors emerge as a combination of the basic cultural, historical and social characteristics of a region. These flavors also contribute local places to turn into an attraction center and become an important part of the tourist experiences. In other words, they become an important element of tourism production and consumption. Dining outside is not only a necessity for tourists but also a tourism activity that provides them with the opportunity to have learning-oriented experiences. In recent years, advanced technology and communication network has brought the tourists' desire to taste the local delicacies of the regions they visit to the top of tourism and travel motivations. It is a rising tendency that tourists give weight to experience also the local tastes of the regions that they visit mainly for entertainment and learning purposes (Shenoy, 2005: 1-2).

Sustainable gastronomy foresees an eco-nutritional diet in order to ensure ecological sustainability and that individuals have optimal level of health. Accordingly, it emphasizes that communities will be able to develop in social and economic aspects in this way. In this respect, sustainable gastronomy can also be referred to as eco-gastronomy. As in sustainable tourism, sustainable gastronomy interacts with all other components related to the development of society. From a more specific perspective, sustainable gastrono-

my is concerned with the production of environmentally and society-friendly food. It also indicates to the preparation and consumption of food, which is produced in order to satisfy the minds of individuals as well as their stomachs, in appropriate conditions. Access to good quality food has become a political and agenda-raising issue as much as environmental issues. Sustainable gastronomy is also an indicator of the contribution of food quality to individuals and social welfare. The effects of sustainable gastronomy on social order and diversity of life are as follows (Scarpato, 2002: 139-140):

- Sustainability and increase of local food production and the protection of local sales areas and markets where fresh food is sold,

- Increase in the applicability and range of application of home-made food,

- To preserve and communicate the knowledge about local and traditional

- cuisines and ensure that the employees working in this field are trained on cuisines through tasting,

- To ensure satisfaction while preserving the variety of flavors,

- To act with the awareness of the impact of tourism on gastronomic authenticity and community welfare.

Gastronomic tourism has emerged as a combination of the great influence of food culture on people and the need for recreational activities. Tourists who have no choice than dining outside to meet their need for food find also the opportunity to taste the unique flavors in the region. In this way, they gain both cognitive and sensory experiences. The combination of these two activities increases the popularity of gastronomic tourism day by day, which is a fun and experience-oriented tourism type. The destinations which are successful at becoming an attraction center with the help of local flavors as well as local touristic values in the region both increase the revenue they gain from tourism and offer the most delicious form of intercultural interaction.

It is important to raise the awareness of the host region so that gastronomy tourism contributes to tourism and environmental sustainability. It is necessary to communicate the value of the resources they have in reserve and the importance of offering them to other parties with the least deformation. In this way, the cultural values will continue to exist for years without losing their characteristics, and the sustainability of the region as a tourism center will be ensured.

Information is also important for consumers, namely, tourists. In general, tourists visiting a different region aim to have a dining experience, as

well. However, especially when it comes to gastronomic tourism, specific information should be provided so that the individuals who prefer such tours and trips can enjoy their experiences more. The concept of the trip should be clearly explained to the tourists participating in a gastronomic trip. Tourists should be able to observe and experience historical culinary cultures and tastes as well as the historical touristic areas of the regions they visit. They should also be able to participate in gastronomic festivals that are unique to the region and become more popular day by day (Sandybayev, 2016: 2). Gastronomy festivals are important driving forces of gastronomy tourism. The person who participates in a region-specific gastronomy festival can perform all kinds of activities such as tasting historical and regional flavors of the region and experience how they are prepared.

Sustainable gastronomy tourism refers to the unity on a common ground of individuals and communities that are separated by social loneliness and intensive working tempo resulting from technological developments. The impact of tourism on gastronomic sustainability is not only about harmful nutrients, famine and nutritional conflicts. Nowadays, the effects of tourism on sustainable gastronomy include all components related to gastronomy such as food trade, food processing, retail sales, attitudes, behaviors and food preferences of individuals. Tourism and sustainable gastronomy have become a structure that progresses and develops in a reciprocal interaction. Therefore, sustainable gastronomy efforts and practices provide important contributions needed in the tourism industry (Scarpato, 2002: 140).

In order to develop sustainable gastronomy tourism, local flavors should be preserved and regional and international flavors should be included in hotel cuisines. Meals as universal cultural ambassadors should be presented in original forms and regional promotions should be introduced. Tourist satisfaction as an outcome of touristic visit is of great importance for the sustainability of tourism and gastronomy. Tourists should be provided with the opportunity to obtain culinary experiences related to the products produced in the region they visit. In this way, tourists may have the chance to have a teaching, delicious and enjoyable tourism experience.

## CONCLUSION

In recent years, tourism has turned into a kind of activity which is integrated with more interaction and experience through going beyond the classical pattern with the effect of developing technology and globalization. While the growing population and working tempo put more stress and responsibility on individuals, the volume of leisure time has also increased. In order to breathe within the intensive tempo of daily life, individuals have started to look for different relaxation alternatives in every season.

This situation can be considered as the starting point of the diversity in tourism activities. Individuals who desire to have a different experience in convenient places and weather conditions have begun to be involved in different tourism activities. Gastronomy tourism is a kind of activity that has existed in tourism industry since the beginning; however, has become popular as a tourism movement recently. In the context of gastronomy tourism, individuals visit different places and also experience the tastes unique to the culture and region of the destination they visit. As a result, the need and requirement for food and drink which ranks at first lines for tourists due to the matter of cost and for tourism destinations due to its potential for income in the context of tourism mobility has come to forefront as a type of tourism which puts both parties into a win-win situation. In the scope of learning and experiencing, tourists transform their need for food and beverage into an entertainment event beyond the cost by way of tasting the unique flavors or experiencing their preparation process.

Tourism, which meets the needs of individuals for entertainment, learning and experience by developing into different aspects, is also an important force in terms of regional and global economy. Tourism is one of the leading sectors which are important not only for the sustainability of tourism mobility and survival of the destinations hosting the tourism but also for the maintenance of economic, social and ecological balance. For sustainable tourism, tourism destinations should be visited without being destroyed and under protection, and the objects and activities subject to tourism should be presented by honoring their essence. This is an inevitable requirement for the sustainability of tourism activity. Thus, the potential to attract tourists will remain the same for the present and future generations, and tourism will continue to contribute to the economy. At the same time, all the efforts to be put in place for the sustainability of tourism will yield positive outcomes for the global environmental problems, even if they are not related to the region, by ensuring the protection of the ecological environment. Hence, the environmental rights of the future generations will be preserved by raising awareness on sustainable environment and natural environment mobility.

Gastronomy tourism takes over an important responsibility in protection and sustainability of cultural tastes and local flavors. In this way, not only the tourism industry and the economy develop but also the local flavors in the regions are preserved and introduced to distant regions, and as a result, the tourist satisfaction is assured. This multifaceted benefit provided by gastronomy tourism is of great importance for the regional and cultural sustainability of tourism. Development of the awareness on sustainable tourism and welfare both in the regions hosting the tourism and for the tourists will bring a successful life style which results in spontaneous settlement of many natural, environmental and economic problems.

# REFERENCES

Brundtland, G. H. (1987). *Report of the World Commission on Environment and Development: Our Common Future.* Oslo: United Nations World Commission on Environment and Development.

Budowski, G. (1976). Tourism and Environmental Conservation: Conflict, Coexistence, or Symbiosis? *Environmental Conservation*, 27-31.

Çetin, E. B. (2017). *Second Global Report on Gastronomy Tourism-Tourism and Gastronomy in Turkey.* Madrid: World Tourism Organization (UNWTO).

Dau, K. (2015). *The role of facilities in supporting the sustainable street food scene in Finland Attitudes and Perceptions of Street Food experts.* Finland: Jamk University of Applied Sciences.

Eccles, R. G., & Krzus, M. (2010). *One Report Integrated Reporting for a Sustainable Strategy.* New Jersey: John Wiley & Sons, Inc.

Gheorghe, G., Tudorache, P., & Nistoreanu, P. (2014). Gastronomic Tourism,A New Trend For Contemporary Tourism?? *Cactus Tourism Journal*, 12-21.

Gössling, S., Hall, C., & Weaver, D. (2009). *Sustainable Tourism Futures Perspectives on Systems Restructuring and Innovations.* New York: Routledge.

Harris, R., Griffin, T., & Williams, P. (2002). *Sustainable Tourism:A Global Perspective.* Oxford: Butterworth-Heinemann.

Jong, A. d., Palladino, M., Romeo, G., & Nadia, F. (2018). Gastronomy Tourism: An Interdisciplinary Literature Review of Research Areas, Disciplines, and Dynamics. *Journal of Gastronomy and Tourism*, 131-146.

Kivela, J., & Crotts, J. (2006). Tourism And Gastronomy:Gastronomy'S Influence On How Tourists Experience A Destination. *Journal of Hospitality & Tourism Research*, 354-377.

Liburd, J. J., & Edwards, D. (2010). *Understanding the Sustainable Development of Tourism.* Oxford: Goodfellow Publishers Ltd.

Middleton, V. T., & Hawkins, R. (1998). *Sustainable Tourism: A Marketing Perspective.* Oxford: Butterworth-Heinemann.

Rämet, J., Tolvanen, A., Siikamäki, P., Törn-Laapio, A., Kinnunen, I., & Orell, M. (2005). Sustainable tourism. A. Jalkanen, & P. Nygre içinde, *Sus-*

*tainable use of renewable natural resources — from principles to practices* (s. 1-10). Helsinki : University of Helsinki Department of Forest Ecology.

Rinaldi, C. (2017). Food and Gastronomy for Sustainable Place Development: A Multidisciplinary Analysis of Different Theoretical Approaches. *Sustainability*, 1-25.

Ritchie, J. B., & Crouch, G. (2003). *The Competitive Destination A Sustainable Tourism Perspective.* USA: CABI Publishing.

Sandybayev, A. (2016). Gastronomic Tourism as a Destination Attraction in Kazakhstan. *Case Studies Journal*, 1-7 /www.casestudiesjournal. com/.

Scarpato, R. (2002). Sustainable gastronomy as a tourist product. G. Richards, & A.-M. Hjalager içinde, *Tourism and Gastronomy* (s. 132-152). Routledge.

Shenoy, S. S. (2005). *Food Tourism And The Culinary Tourist.* South Carolina, USA: Clemson University, PHD Thesis.

Singsomboon, T. (2014). *Marketing Strategies For Thai Gastronomic Tourism Promotion.* Bangkok: National Institute of Development Administration- PHD Thesis.

Slow, F. (2013). *Slow Food's Contribution to the Debate on the Sustainability of the Food System.* 03 10, 2019 tarihinde Slow Food: www. slowfood.com adresinden alındı

Swarbrooke, J. (1999). *Sustainable Tourism Management.* London : CABI Publishing.

UNDP, T. (tarih yok). *Birleşmiş Milletler Kalkınma Programı Türkiye.* 03 15, 2019 tarihinde UNDP Türkiye: http://www.tr.undp.org adresinden alındı

UNESCO. (tarih yok). *Sustainable Tourism Development in UNESCO Designated Sites in South-Eastern Europe.* 03 12, 2019 tarihinde docplayer.net adresinden alındı

Weaver, D. (2006). *Sustainable Tourism: Theory and Practice.* Oxford: Elsevier Butterworth-Heinemann.

# THE LONG RUN EFFECTS OF EXPORTS AND INVESTMENT ON ECONOMIC GROWTH IN OECD COUNTRIES

CHAPTER

13

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## INTRODUCTION

Efforts to assess the role of exports and capital formation in economic growth are not new and go back to the classical economic theories. Since sustainable economic growth is considered to be a precondition for higher living standards, this task is of obvious importance for ramifications of development strategies. Therefore, considerable attention has been devoted to quantifying the effects of the driving forces of economic growth. Export expansion is viewed as a powerful force for economic growth due to the role granted to exports in fostering output growth through various channels. Export growth is expected to increase the ability of an economy to finance its imports of capital and intermediate goods, which raises capital formation, thus in turn leads to output growth. Exports also stimulate productivity growth through more efficient allocation of resources, greater capacity exploitation and utilization of scale economies, as a result of increasing foreign market competition, transfer of knowledge and production technologies. Furthermore, exports expansion is viewed as an engine for increasing employment opportunities and incomes creating a multiplier effect. These virtues attributed to exports growth is known as exports-led growth (ELG) hypothesis and well documented in the empirical literature (Emery, 1967; Michaely, 1977; Balassa, 1978 and 1985; Krueger, 1978; Tyler, 1981; Feder, 1983; Kavoussi, 1984; Ekanayake, 1999; Sampath and Anwar, 2000; Love and Chandra, 2004 among others). These empirical inquiries, however, have been criticized for the shortcomings of the methodologies they had employed.

ELG paradigm has become the dominant strategy after 1970s replacing import substitution solutions for industrialization. The example of economic success of East Asian Tigers (South Korea, Hong Kong, Taiwan and Singapore) adapting export driven growth strategies had been followed by a number of newly industrializing economies in Latin America and Southeast Asia. However, a number of studies argue that the ELG hypothesis may not always sound (Krugman, 1984; Jung and Marshall, 1985; Dodaro, 1993; Blecker and Razmi, 2010). Therefore, the underlying motive of this study to re-examine and quantify the long run effects of exports on economic growth by eliminating the drawbacks of time series analyses and problems related to the panel data models (i.e. dynamics, reverse causality, heterogeneity and cross-sectional dependence).

For this purpose, we employ data on a panel of 28 OECD countries for the period 1969-2017. The empirical approaches we employ in this study require a sufficient number of time periods to have consistent estimates of country-specific coefficients, so that our analysis only included countries

with 30 consecutive annual observations on the variables. The list of the OECD countries we include in our sample is presented in Table 1.

The data on exports (% of GDP), gross capital formation (% of GDP) which is a proxy for investment and GDP (constant 2010 US$) are extracted from World Development Indicators provided by World Bank. The OECD countries are highly integrated as they are vulnerable to economic and financial shocks coming from the others and vice versa. Therefore, the model specification requires taking account of the financial and economic ties of these countries. Furthermore, the assumption of parameter homogeneity and ignoring cross sectional dependence across units in such models may lead to misleading empirical results. For this reason, we adopt recent approaches proposed by Chudik and Pesaran (2015) and Chudik et al. (2003 and 2016) which enables estimating the long run coefficients in dynamic heterogeneous panels with cross sectionally dependent errors. Specifically, we employ a cross section augmented ARDL approach (CS-ARDL) and a cross section augmented distributed lag (CS-DL) framework to estimate the long run coefficients in dynamic heterogeneous panels with cross sectionally dependent errors.

**Table 1.** *Countries Studied*

| Australia | Austria | Belgium | Canada |
|-----------|---------|---------|--------|
| Chile | Denmark | Finland | France |
| Germany | Greece | Iceland | Ireland |
| Israel | Italy | Japan | Korea, Rep. |
| Luxembourg | Mexico | Netherlands | New Zealand |
| Norway | Portugal | Spain | Sweden |
| Switzerland | Turkey | United Kingdom | United States |

## METHODOLOGY

One of the options to assess the long run effects is the traditional panel ARDL approach. ARDL model can be estimated consistently irrespective of whether the underlying variables are I (0) or I (1) or a mixture of the two and if they are exogeneous or endogenous (Pesaran and Smith, 1995; Pesaran, 1997; Pesaran and Shin, 1999; Chudik et al., 2013). These features enable one to account reverse causality among the variables which is highly likely in our case, as indicated by the trade literature. The basic panel ARDL (p, q) specification can be represented as in the following equation:

$$y_{i,t} = \sum_{l=1}^{p} \varphi_{i,l} y_{i,t-l} + \sum_{l=0}^{q} \beta'_{i,l} x_{i,t-l} + u_{i,t}$$

(1)

$$u_{i,t} = \gamma'_i f_t + \varepsilon_{i,t}$$

(2)

for i = 1, 2, …, N (units) and t = 1, 2, …, T (time periods), where $f_t$ is an mx1 vector of unobserved common factors and $\gamma'_i$ is the corresponding factor loading, and p and q are lag orders of the dependent variable and independent variables, respectively, chosen to be sufficiently long so that error term ($u_{i,t}$) is a serially uncorrelated process across all units. $y_{i,t}$ is the dependent variable of the $i^{th}$ cross section units and $x_{i,t}$ is the *kx1* vector of regressors. Then, the vector of long run coefficients is given by

$$\theta_i = \frac{\sum_{l=0}^{p} \beta_{i,l}}{1 - \sum_{l=1}^{q} \varphi_{i,l}}$$

(3)

One way to estimate the long run coefficients is to estimate the short run coefficients ($\varphi_{i,l}$ and $\beta_{i,l}$) and substitute these estimations in equation (3) to estimate the long run effects. Alternatively, Chudik et al. (2013) propose another approach ('distributed lag (DL) approach to the estimation of long run effects') estimating the long run coefficients directly without estimating the short run coefficients first. They show that this can be done by rewriting the ARDL model in equation (1) as follows:

$$y_{i,t} = \theta_i x_{i,t} + \alpha'_i L \Delta x_{i,t} + \tilde{u}_{i,t},$$

(4)

where $\tilde{u}_{i,t} = \varphi(L)^{-1} u_{i,t}$, $\varphi_i(L) = 1 - \sum_{l=1}^{p} \varphi_{i,l} L^l$, $\theta_i = \delta_i(1)$, $\delta_i(L) = \varphi_i^{-1}(L)\beta_i(L) = \sum_{l=0}^{\infty} \delta_{i,l} L^l$, $\beta_i(L) = \sum_{l=0}^{q} \beta_{i,l} L^l$, and $\alpha_i(L) = \sum_{l=0}^{\infty} \sum_{s=l+1}^{\infty} \delta_s L^l$.

Chudik et al. (2016) argues that, based on the least square regression of $y_{i,t}$ on $x_{i,t}$ and $\{x_{i,t-l})\}_{l=0}^{p}$, a consistent estimate of $\theta_i$ can be obtained. The truncation lag order p is chosen as an increasing function of the sample size (specifically, it is chosen as the integer part of $T^{1/3}$). However, there are a number of conditions to hold to have consistent estimate of $\theta_i$. First,

the coefficients of $\alpha_i(L)$ should be exponentially decaying, which requires the usual assumption on the roots of $\varphi_i(L)$ falling strictly outside the unit circle. In addition, there should not be feedback effects from lagged values of $y_{i,t}$ onto $x_{i,t}$. Chudik et al. (2015), on the other hand, note that strict exogeneity is not necessarily required for consistency of DL framework. Once the individual estimates $\theta_i$ are obtained using either ARDL or DL framework, they can be averaged across units to obtain a consistent estimate of the average long run effects ($\bar{\hat{\theta}} = N^{-1} \sum_i^N \hat{\theta}_i$).

However, ARDL methodology assumes that the errors are cross sectionally independent. This assumption, on the other hand, may not hold as there are a number of unobserved or omitted global factors which are likely correlated with the regressors, which in turn lead to biased estimates. To capture the cross sectional correlation in the error term, we employ the CS-ARDL approach which augments the ARDL model given in Equation (1) with a linear combination of the cross sectional averages of all the variables including dependent variable and sufficient number of lagged variables.

Nevertheless, Chudik et al. (2013) note that the sampling uncertainty could be large when the time is not very large and choosing the correct specification of the lag orders is too crucial for the performance of estimators. To overcome these issues, we also employ the cross sectional distributed lag (CS-DL) approach of Chudik et al. (2013) which only requires that a truncation lag order is selected and exhibit better small sample performance. However, they note that CS-DL estimator is not consistent when the feedback effects are present.

Given that all the techniques discussed above have their own merits and limitations, it should be emphasized that they are not substitutes, but complementary models. Each estimator that comes up with a solution to a specific econometric problem may cause a different type of bias (Chudik et al. 2015).

## EMPIRICAL ANALYSIS

This section starts with the analysis of long run effects of exports and investment on economic growth based on the standard panel ARDL approach, of which the error correction form is given by

$$\Delta y_{i,t} = c_i + \sum_{l=1}^{p} \varphi_{i,l} \Delta y_{i,t-l} + \sum_{l=0}^{p} \beta'_{i,l} x_{i,t-l} + u_{i,t},$$

$$(5)$$

where $y_{i,t}$ is the log of real GDP, $x_{i,t} = (ex_{i,t}, inv_{i,t})'$, $ex_{i,t}$ is the log of exports to GDP ratio, and $inv_{i,t}$ is the gross fixed capital formation to GDP ratio. We consider the same values of p ranging from 1 to 3 for all countries/variables. Table 2 summarizes the fixed effects (FE) estimates are in Panel (assuming slope homogeneity), and presents the Mean Group (MG) estimates in Panel B (allowing for slope coefficients to vary across countries). The FE estimators will be inconsistent in the presence of slope homogeneity even if T is sufficiently large (Pesaran and Smith, 1995). In contrast, the MG estimates, so long as the errors are cross-sectionally independent, are consistent under fairly general conditions (Chudik et al., 2013). The table also reports average estimates of the long-run effects of export/GDP ($\theta_{ex}$) and investment/GDP ($\theta_{inv}$) on economic growth, and the mean estimate of the coefficients of the error term ($\lambda$).

The results suggest a direct relationship between exports/GDP and economic growth. Specifically, the coefficients of the variable are always positive and significant at 1% significance level across various lag orders, with MG and FE estimates providing close magnitudes for coefficients. However, the sign of the coefficients of investment/GDP vary across lag orders and insignificant with one exception when considering the FE estimates. MG estimates, on the other hand, always produce positive (with larger magnitude) and mostly significant estimates of coefficients of investment variable. Furthermore, across both estimation techniques, the speed of adjustment to long-run equilibrium is very quick.

As mentioned earlier, the possible cross sectional error dependencies due to unobserved global factors which might affect both the dependent variable and independent variables simultaneously and might be correlated with the regressors, which may lead to biased estimates. We observe that the statistics of the CD test of Pesaran (2004, 2015) reported in Panel A and B CD are highly significant with very large test statistics implying the presence of the cross-sectional dependence. Therefore, it can be argued that the estimates of traditional ARDL model might be misleading. To overcome this issue we employ CS-ARDL approach, an augmentation of the ARDL regressions, and obtain the MG estimates for different truncation lag orders. The CS-ARDL regressions are given by

$$\Delta y_{i,t} = c_i + \sum_{l=1}^{p} \varphi_{i,l} \Delta y_{i,t-l} + \sum_{l=0}^{p} \beta_{i,l}' x_{i,t-l} + \sum_{l=0}^{3} \psi_i' \bar{z}_{t-m} + e_{i,t} \qquad (6)$$

where $\bar{z}_t = (\bar{y}_t, \bar{x}_t')'$, and all the other variables are as defined in equation (5).

The estimation results of the CS-ARDL framework are summarized in Panel C of Table 2. MG estimates provide similar results to those based on the ARDL approach for exports, as the coefficients are positive and always significant across different lag orders. We also observe that the long run estimates of investment are positive and highly significant across different specifications. It is also worth noting that the CD test statics are substantially lower compared to the ones in Panel A and B, and confirm a gradual decline in the average pair wise correlation of errors when considering the CS-ARDL model. Finally, the speed of convergence to equilibrium is very quick in all cases and faster than in the case of the ARDL model. However, Chudik et al. (2013) note that these values should be viewed as indicative due to the small sample bias in the estimates of the short-run dynamics.

As noted earlier, the ARDL and CS-ARDL approaches have their own shortcomings and limitations. Therefore, we estimate the CS-DL versions of the previous frameworks. Specifically we run the following regression

$$\Delta y_{i,t} = c_i + \theta'_i x_{i,t} + \sum_{l=1}^{p-1} \delta'_{i,l} \Delta x_{i,t-l} + \omega_{i,y} \overline{\Delta y}_t +$$
$$\sum_{l=0}^{3} \omega'_{i,xl} \bar{x}_{t-l} + e_{i,t} \qquad (7)$$

where the regressors are defined as in equation (5). The MG estimates are presented in Table 4. The results are somewhat similar to those based on ARD and CS-ARDL. Specifically, the long run effect of exports on economic growth is significantly positive and investment has a positive significant effect on growth in the long run as is in the case of CS-ARDL.

Overall, all the estimation techniques agree on the positive long run effect of exports and investment on economic growth. It can be expected that the true magnitude of the effects to be somewhere in between the two estimates based on CS-ARDL and CS-DL (Chudik et al. 2013), ranging from 0.211 to 0.281 for exports and from 0.055 to 0.103 for investment.

**Table 2:** *Estimates of the Long-Run Effects, 1969-2017*

| | Panel A: ARDL (FE) | | | Panel B: ARDL (MG) | | |
|---|---|---|---|---|---|---|
| | 1 lag | 2 lag | 3 lag | 1 lag | 2 lag | 3 lag |
| $\theta_{ex}$ | 0.216*** | 0.255*** | 0.313*** | 0.234*** | 0.268*** | 0.247*** |
| | (.031) | (0.026) | (0.032) | (0.022) | (0.025) | (0.067) |
| $\theta_{inv}$ | 0.005 | 0.033 | 0.073*** | 0.049** | 0.080*** | 0.103*** |
| | (0.025) | (0.025) | (0.021) | (0.022) | (0.025) | (0.032) |
| $\lambda$ | -0.790*** | -0.757*** | -0.757*** | -0.753*** | -0.732*** | -0.694*** |
| | (0.051) | (0.055) | (0.067) | (0.041) | (0.066) | (0.066) |
| *CD test statistics* | 40.64 | 38.43 | 36.11 | 28.14 | 24.48 | 21.36 |
| *NxT* | 1265 | 1237 | 1209 | 1265 | 1237 | 1209 |
| | Panel C: CS-ARDL(MG) | | | Panel D: CS-DL(MG) | | |
| | 1 lag | 2 lag | 3 lag | 1 lag | 2 lag | 3 lag |
| $\theta_{ex}$ | 0.259*** | 0.258*** | 0.281*** | 0.211*** | 0.225*** | 0.257*** |
| | (0.031) | (0.037) | (0.048) | (0.023) | ().028) | (0.031) |
| $\theta_{inv}$ | 0.100*** | 0.070** | 0.105** | 0.055** | 0.055* | 0.065* |
| | (0.038) | (0.031) | (0.043) | (0.028) | (0.030) | (0.035) |
| $\lambda$ | -0.867*** | -0.922*** | -0.815*** | | | |
| | (0.049) | (0.080) | (0.069) | | | |
| *CD test statistics* | -1.58 | 0.04 | 0.06 | -1.15 | -0.78 | -0.97 |
| *NxT* | 1209 | 1209 | 1209 | 1212 | 1212 | 1212 |

## CONCLUSION

In this paper, we empirically reexamine the effects of exports and investment on economic growth in the long run using data on 28 OECD countries for the period 1969-2017. For the purpose of taking account of error cross-country dependence and cross-country heterogeneity, we employ cross-sectionally augmented distributed lags (CS-DL) which is robust to misspesification of dynamics and error serial correlation unlike the standard panel data estimators that are based on autoregressive distributed lag (ARDL) specifications. It is worth noting that all these estimation techniques have their own drawbacks and limitations. They should be considered as complementary to each other rather than substitutes. The empirical evidence extracted from all these three different analyses is that exports and investment have a positive log run effect on economic growth, supporting the popular ELG hypothesis in OECD countries. Specifically, it can be expected that the true magnitude of the long run effect of exports on growth to be somewhere in between the two estimates based on CS-ARDL and CS-DL.

Given that most of the OECD countries are considered to be developed economies, the empirical evidence also may suggest the crucial role of absorptive capacity for capturing so-called spillover effects that arise from foreign competition with export expansion. Therefore, this argument has important policy implications for less developed economies as well, highlighting the importance of required ramifications in trade and development strategies to be able to absorb potential gains from international trade.

# REFERENCES

Balassa, B. (1978). Exports and economic growth: further evidence. *Journal of development Economics*, *5*(2), 181-189.

Balassa, B. (1985). Exports, policy choices, and economic growth in developing countries after the 1973 oil shock. *Journal of development economics*, *18*(1), 23-35.

Blecker, R. A., & Razmi, A. (2010). Export-led growth, real exchange rates and the fallacy of composition. *Handbook of alternative theories of economic growth, Cheltenham: Edward Elgar*.

Chudik, A., Mohaddes, K., Pesaran, M. H., & Raissi, M. (2013). Debt, inflation and growth: robust estimation of long-run effects in dynamic panel data models. *Cafe research paper*, (13.23).

Chudik, A., & Pesaran, M. H. (2015). Common correlated effects estimation of heterogeneous dynamic panel data models with weakly exogenous regressors. *Journal of Econometrics*, *188*(2), 393-420.

Chudik, A., Mohaddes, K., Pesaran, M. H., & Raissi, M. (2016). Long-run effects in large heterogeneous panel data models with cross-sectionally correlated errors. In *Essays in Honor of man Ullah* (pp. 85-135). Emerald Group Publishing Limited.

Dodaro, S. (1993). Exports and growth: A reconsideration of causality. *The Journal of Developing Areas*, 227-244.

Ekanayake, E. M. (1999). Exports and economic growth in Asian developing countries: Cointegration and error-correction models. *Journal of Economic Development*, *24*(2), 43-56.

Emery, R. F. (1967). The relation of exports and economic growth. *Kyklos*, *20*(4), 470-486.

Feder, G. (1983). On exports and economic growth. *Journal of development economics*, *12*(1-2), 59-73.

Jung, W. S., & Marshall, P. J. (1985). Exports, growth and causality in developing countries. *Journal of development economics*, *18*(1), 1-12.

Kavoussi, R. M. (1984). Export expansion and economic growth: Further empirical evidence. *Journal of Development Economics*, *14*(1), 241-250.

Krueger, A. O. (1978). Liberalization attempts and consequences. *NBER Books*.

Krugman, P. (1984). Import protection as export promotion: International competition in the presence of oligopoly and economies of scale. *Monopolistic competition and international trade*, 180-93.

Love, J., & Chandra, R. (2004). Testing export-led growth in India, Pakistan and Sri Lanka using a multivariate framework. *The Manchester School*, *72*(4), 483-496.

Michaely, M. (1977). *Theory of commercial policy: trade and protection*. Allan.

Pesaran, M. H. (1997). The role of economic theory in modelling the long run. *The Economic Journal*, *107*(440), 178-191.

Pesaran, M. H. (2004). General diagnostic tests for cross section dependence in panels. CESifo Working Paper No. 1229.

Pesaran, M. H. (2015). Testing weak cross-sectional dependence in large panels. *Econometric Reviews*, *34*(6-10), 1089-1117.

Pesaran, M. H., & Smith, R. (1995). Estimating long-run relationships from dynamic heterogeneous panels. *Journal of econometrics*, *68*(1), 79-113.

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American Statistical Association*, *94*(446), 621-634.

Sampath, R. K., & Anwar, M. S. (2000). Exports and economic growth. *The Indian Economic Journal*, *47*(3), 79-88.

Tyler, W. G. (1981). Growth and export expansion in developing countries: Some empirical evidence. *Journal of development Economics*, *9*(1), 121-130.

# PROXIMITY ANALYSIS OF HIGHWAYS AND ACTIVE LANDSLIDES IN ÇANKIRI PROVINCE

CHAPTER

14

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## INTRODUCTION

The most common natural disaster type in Turkey is landslide. Landslides are in the second place among disasters that cause the most building damage (Gökçe vd., 2008). The term landslide is defined as the displacement of a mass of rock, debris cover or soil mass with gravity effect (Erinç, 2000). The factors that cause landslide events are listed by Sür (1973) as the change of slope gradient, the effect of accumulation, vibrations, changes in the amount of water, the effects of ground water, the effects of frost events, crushing of rocks and destruction of vegetation. Landslides cause building damage in many places. Roads and agricultural areas are also frequently affected by landslides.

Turkey's mountainous structure and steep slopes triggers landslides during road construction (Anaçali ve Şirin, 2015).

Since the early 1990s, many studies have been conducted about landslides have caused damage to the roads in Turkey (Öner, 1991; Uzun, 1992; Şahin, 1996; Bulut vd, 2000; Erginal ve Bayrakdar, 2005).

Yapraklı district of Çankırı among the most damaged in 20 districts on the basis of the number of victims of the landslide ranks 19th with 469 disaster-victims in Turkey (Gökçe vd, 2008). Between 1950 and 2010, the number of landslides that caused great damage in the Çankırı province was 24 (Köle ve Ataol, 2015).

In this study, areas where active landslides within the boundaries of Çankırı province can affect the highways have been identified. There are three different state road routes within the borders of Çankırı province. The most commonly used route is the D-100 highway. The others are the Ankara-Kastamonu route and the two-way Çankırı-Çorum route.

The area occupied by Çankırı Province is 7546 km$^2$. There are 470 km state road (423 km of which is divided road), 326 km provincial road and 1850 km village road in this province.
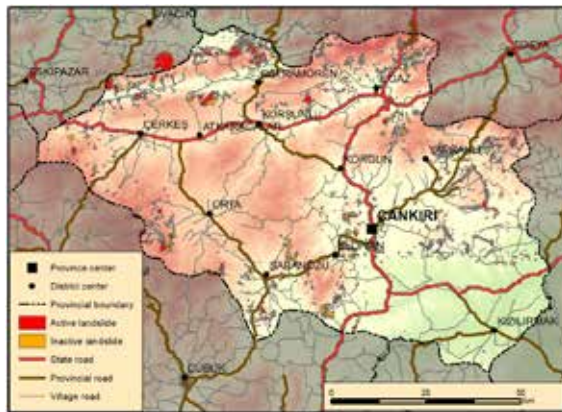


**Figure 1**: *Highways and landslides in Çankırı Province*

The North Anatolian Fault Zone passes north of Çankırı. Therefore, especially the northern part of Çankırı is very active in terms of seismic activity. Seismic activities also cause landslides. The three largest earthquakes recorded within the boundaries of Çankırı province occurred in 1951, 1953 and 2000, respectively. 1951 Çerkeş earthquake was 6.9 magnitude, 1953 Kurşunlu earthquake was 6.0 magnitude and 2000 Orta earthquake was 5.9 magnitude (Köle, 2016).

When the geological maps of Çankırı Province are examined (Dönmez and Akçay, 2010), it is seen that landslides mostly occur on evaporite sedimentary rocks and clastic and carbonate rocks. The landslides in the eastern part of the province were developed on evaporite sedimentary rocks. The landslides in the western and northern parts of the province are mostly formed on clastic and carbonate rocks.

There are 1244 active landslides within the borders of Çankırı province according to Turkey Landslide Inventory that created by General Directorate of Mineral Research and Exploration (Duman et al. 2005; Duman et al., 2007). More than half of these landslides were collected in four districts. These are Çerkeş, Yapraklı, Merkez and Ilgaz districts (Table 1). The number of landslides is at minimum level in Kızılırmak and Korgun districts.

**Table 1.** *Number of active landslides by district*

| District | Number of active landslides |
|---|---|
| Atkaracalar | 20 |
| Bayramören | 116 |
| Çerkeş | 211 |
| Eldivan | 85 |
| Ilgaz | 193 |
| Kızılırmak | 6 |
| Korgun | 7 |
| Kurşunlu | 47 |
| Merkez | 198 |
| Orta | 123 |
| Şabanözü | 66 |
| Yapraklı | 198 |

## MATERIALS AND METHODS

1/500000 scaled landslide inventory maps of Turkey were created by General Directorate of Mineral Research and Exploration. The data for the province of Çankırı are on two separate sheets. These are Sinop and Zonguldak sheets with a scale of 1/500000 (Duman et al. 2005; Duman et al. 2007). The landslide areas in Çankırı Province were transferred to GIS environment using ArcGIS 10 software. The data for the highways in Çankırı were obtained from the OpenStreetMap database.

Buffer areas of 50, 100, 150, 200, 250 meters width were created by buffer analysis in the vicinity of active landslide areas. In the landslides in Çankırı province, the accumulation zone does not exceed 250 meters. Therefore, further distances are not taken into account when creating buffer areas. With overlay operations, buffer areas of active landslide areas are overlapped with highways data. Highways likely to be affected by landslides were determined on the basis of road type and district. The data obtained were transformed into maps and tables.

## RESULTS

In the province of Çankırı, more than 13 km of state roads are less than 250 meters from active landslides. The 780 m section is located directly on the landslide area (deposition zone). State roads are the roads that connect cities to each other. Therefore, these roads are very heavy traffic. The locations with the highest risk for landslides are shown in Fig.2. These are the most important places to take precautions. 11 km of the provincial roads connecting the districts are close to 250 meters of active landslides. On village roads, this distance reaches 217 km (Table 2). 43 km of the village roads are directly on the landslide area. It is seen that most of these roads are located in mountainous areas. It is observed especially in the north of Bayramören and Çerkeş districts and in the west of Orta district.

**Table 2:** *Proximity of roads to landslides*

| Road class | On the landslide (meter) | Proximity to landslides (meter) | | | | |
|---|---|---|---|---|---|---|
| | | <50 | <100 | <150 | <200 | <250 |
| State road | 780 | 1201 | 2683 | 4177 | 8664 | 13592 |
| Provincial road | 1056 | 1304 | 3542 | 6113 | 8203 | 11166 |
| Village road | 43010 | 29509 | 66507 | 110746 | 162083 | 216953 |

When we look at the proximity of the roads to the landslide areas on the basis of districts, it is seen that the most affected district is Bayramören. Less than 10% of the active landslides in Çankırı are located in this district. However, the most road under the threat of landslides in this district. Almost all of these roads are village roads. Very large part is located in mountainous areas. The roads themselves can be the cause of landslides in such areas. Road cuts disrupt the steep slopes and trigger the formation of landslides.

Çerkeş district is the district with the highest number of landslides among Çankırı districts. It is the second district with the road under the landslide threat.

Although the Kızılırmak district consists of lithologically largely evaporite sedimentary rocks, it has very low landslides due to its topography. There are no roads under the landslide threat within the boundaries of this district.

There is no landslide in the central part of Çankırı. Therefore, there is no road affected by landslides in this area. Due to the fact that the central parts of Çankırı province consist mostly of volcanic rocks, a solid ground has been formed.
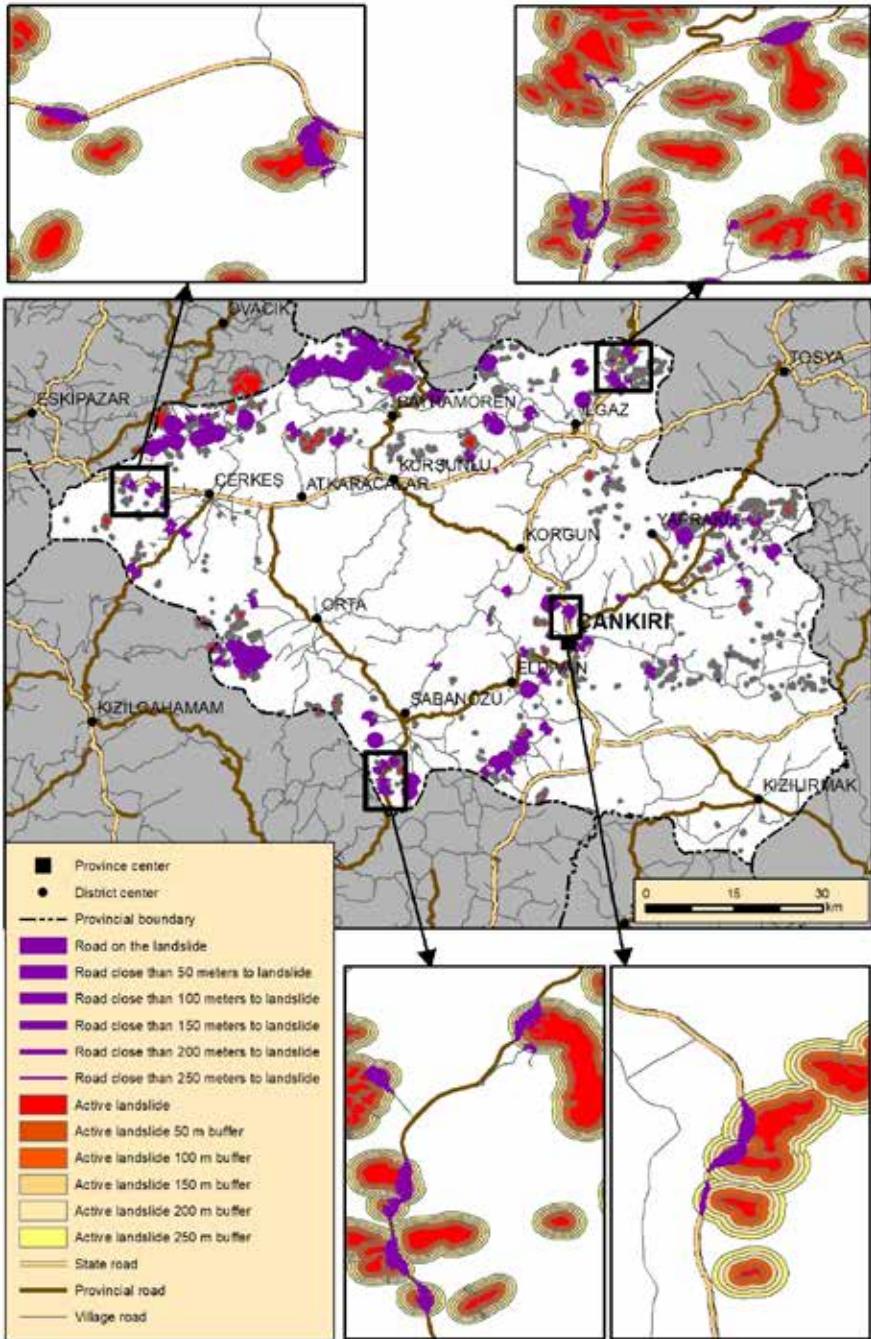
**Figure 2:** *Roads near landslides and buffer areas*

**Table 3:** *Proximity of roads to landslides by district*

| District | On the landslide (meter) | Proximity to landslides (meter) | | | | |
|---|---|---|---|---|---|---|
| | | <50 | <100 | <150 | <200 | <250 |
| Atkaracalar | 813 | 354 | 679 | 1342 | 1831 | 2344 |
| Bayramören | 19433 | 9521 | 20650 | 31985 | 45884 | 59693 |
| Çerkeş | 7113 | 5581 | 14570 | 24288 | 36056 | 49150 |
| Eldivan | 2867 | 2269 | 5976 | 10068 | 14294 | 18099 |
| Ilgaz | 3264 | 1967 | 4367 | 8253 | 14413 | 21843 |
| Kızılırmak | 0 | 0 | 0 | 0 | 0 | 0 |
| Korgun | 120 | 130 | 267 | 767 | 1418 | 1948 |
| Kurşunlu | 429 | 504 | 861 | 1206 | 1782 | 2377 |
| Merkez | 1280 | 1345 | 3536 | 6994 | 11363 | 15869 |
| Orta | 4646 | 5469 | 11352 | 18382 | 26265 | 34610 |
| Şabanözü | 2426 | 1879 | 3979 | 7039 | 10240 | 14470 |
| Yapraklı | 2455 | 2995 | 6495 | 10899 | 16037 | 21881 |

## CONCLUSION

In Çankırı province, more than 13 km of state roads are close to active landslides. The district where the roads near the landslide areas are most frequently seen is Bayramören. Çerkeş follows this district. The roads of Kızılırmak, Korgun and Kurşunlu districts are the least affected by landslides.

If the land consisting of evaporite sedimentary rocks and clastic and carbonate rocks also has a high slope, the number of landslides is increasing. The roads themselves can be the cause of landslides in such areas. Road cuts disrupt the steep slopes and trigger the formation of landslides.

In areas with lithological units suitable for landslide formation, slope load should be reduced and terracing should be done.

Landslide sites should be avoided as much as possible in route selection. Steep slopes become more steep with road extension works. Instead, alternative routes should be explored where possible.

# REFERENCES

Anaçali, İ., Şirin, A. (2015). *Heyelan Tanımlama ve Veri Oluşturma Kılavuzu*. Karayolları Genel Müdürlüğü Araştırma ve Geliştirme Dairesi Başkanlığı Jeolojik Hizmetler Şubesi. Mayıs 2015, Ankara

Bulut, İ., Girgin, M., Gök, Y. (2000). Kalecik Heyelanı-Karlıova. *Doğu Coğrafya Dergisi*, *6*(3).

Dönmez, H., Akçay, A.E. (2010). *Türkiye Jeoloji Haritaları, Çankırı-H30 Paftası ve Açıklaması*, MTA Jeoloji Etütleri Dairesi, No:138.

Duman, T.Y., Olgun, Ş., Çan, T., Nefeslioğlu, H.A., Hamzaçebi, S., Durmaz, S., Emre, Ö., Ateş, Ş., Keçer, M., Çörekçioğlu, Ş. (2007). *Türkiye Heyelan Envanteri Haritası 1/500000 Ölçekli Sinop Paftası*, MTA, Ankara

Duman, T.Y., Emre, Ö., Çan, T., Nefeslioglu, H.A., Keçer, M., Doğan, A., Durmaz, S., Ateş, Ş. (2005). *Türkiye Heyelan Envanteri Haritası 1:500000 Ölçekli Zonguldak Paftası*, MTA, Ankara

Erginal, A.E., Bayrakdar, C. (2005). Karayolu Heyelanlarına bir örnek: İnecik Heyelanı (Tekirdağ). *İstanbul Üniversitesi Coğrafya Dergisi*, 14, 43-53.

Erinç, S. (2000). *Jeomorfoloji I*, Der yayınları, Yayın No: 284, İstanbul

Gökçe, O., Özden, Ş., Demir, A. (2008). *Türkiye'de Afetlerin Mekansal ve İstatistiksel Dağılımı Afet Bilgileri Envanteri*, Bayındırlık ve İskan Bakanlığı, Afet İşleri Genel Müdürlüğü, Afet Etüd ve Hasar Tespit Daire Başkanlığı, Ankara

Köle, M.M. (2016). Çankırı İli İçin Deprem Olasılık Tahmini. *Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 7(1), 455-470

Köle, M.M, Ataol, M. (2015). Çankırı İlinde Doğal Afetlerin Alansal Dağılımı Üzerine Bir Değerlendirme (1950-2010). *Ankara Üniversitesi Sosyal Bilimler Dergisi*, 6(2)

Öner, A.G.E. (1991). Gümüşhane (Torul-Kürtün) Çevresinde Heyelan Olayları. *Atatürk Kül. Dil. ve Tar. Yük. Kur. Coğ. Uyg. Kolu Coğrafya Araştırmaları*, 123-136

Şahin, C. (1996). Aydoğan ve Yakın Çevresinde Heyelanlar (Gölköy-Ordu). *Marmara Coğrafya Dergisi*, (1), 287-308.

Uzun, A. (1992). Kop Dağı Heyelanı. *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, *7*(1), 272-282.

# ACCOUNTING PROFESSION IN DIGITAL WORLD AND STATUS IN HIGHER EDUCATION CURRICULUM

CHAPTER

15

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# INTRODUCTION

The accounting profession, which is one of the areas affected by the globalization process, has undergone many changes by repeating itself over time. The accounting profession, which started with scribes and underwent a digital transformation by using computers as a result of developing technology, has been trying to meet the changes in the needs and demands of enterprises with the development of information and communication technologies in recent years. In this way, in addition to accounting information, digital information is also searched for people who perform their profession in accounting. The changes in the accounting profession have become inevitable thanks to the companies that closely follow the innovative technologies. This change in accounting has also been effective in the scope of accounting and has become a profession that records, classifies, reports and analyzes and interprets financial data over time. Another reason for the change in the accounting profession is the increase in investments with globalization. Investors who want to have financial resources accurate, reliable, complete and recorded in a short time have directed the accounting profession towards its future in the 21st century. With the rapid increase in internet usage and the development of technical knowledge, the expectations of businesses from today's accounting profession have been accurate, reliable and error-free information.

Constantly developing technology; the technical knowledge and skills of accountants, along with new developments in the accounting profession, has removed the accounting profession from stagnation. Professionals have improved their business in a more coordinated way thanks to the developing technology and have recorded more accurate transactions with digitalization. In addition, the innovation in the accounting system has led to the emergence of a new profession under the name of accounting engineering. In this period in which the importance of the technical structure increased and the inadequacy of the people performing the accounting profession became accounting engineering. Accounting engineering, which is the characteristic of the engineering profession, can provide new features such as reading, analyzing, interpreting and reporting digital data to professionals. Accounting engineering needs can be shaped according to the needs and needs of businesses (Tekbaş, 2018b).

The aim of this chapter is to reveal the changes in accounting profession due to technological developments. In other words, to emphasize how the profession will be shaped in the future by integrating technology into the accounting profession in cases where the accounting profession is technologically inadequate. For this purpose, in the scope of the study, the change of accounting profession by years is examined and the current situation

of accounting profession is discussed. In addition, taking into account the developments in the accounting profession caused by technological developments, the accounting engineering profession, which is one of the new branches of profession, is examined. At the same time, the place of the accounting engineering profession in the Turkish higher education system was investigated and the course contents of the related departments of the universities were examined and it was aimed to determine whether there are courses related to the profession.

## 1. Historical Development Of Accounting Profession

Accounting, which has a history of about 7000 years, has evolved from primitive recording techniques to the present day. In Mesopotamian Civilizations and Ancient Egypt, where the first writings and numbers began to be used, it was accepted that accounting practices were started. However, the findings that may take place in the history of accounting for these years were not found. It is known that the first inventory transactions were carried out in order to keep track of commercial goods in Egypt. In 3400 BC, especially with the introduction of food and beverage transactions, accounting records in ancient Egypt began to be formed with daily records as well as regular inventory. In addition, in Ancient Egypt, the budgetary leg of accounting and written plans began to be used. It is seen that the delivery date was written on the plates in Old Babylon besides the type, number and names of the seller. It is known that there are written provisions in accounting in Hammurabi laws. In Ancient Iran, 500-400 BC, accounting emerged in the form of registration of payment of wages by money or goods, and accounting was again used as a means of auditing in the Persian Empire in meeting the nutritional and clothing needs of the armies. The importance of accounting has reached a different dimension with the use of coin money. Inventory emerged as financially responsible transactions and government accounting was more prominent in the Ancient Greek civilization. The assets of the state were recorded by people selected from the public. In Ancient Rome, the foundations of the current accounting system were laid. In this system, money accounts are recorded in a separate book and goods and goods such as cereals and animal products are recorded in a separate book. In the meantime, the first concept of depreciation was found in the Old Rome. In the first 500 years after Christ, the concept of inventory developed, the classification of assets became more pronounced. During the Middle Ages, mobile accountants emerged in western Europe and began to produce reports for money (Avder, 2007). It is seen that accounting profession was not considered as a profession in ancient times. At that time, the people involved in accounting were mostly people who knew how to write and managed to read. Therefore, the role of accounting

profession in these periods could not go beyond the function of recording. These records are inventory lists, wage payments, accounts receivable accounts. At every stage of development, people and businesses adapted accounting to their needs, and used it for management, control, business registration, tax collection and reporting, with the recording and analysis techniques they knew or learned.

Government accounting developed earlier than commercial accounting. Because, during the 14th century, accounting was used by the government for the purpose of auditing with the determination of expenses and commercial goods movements. The practice of auditing accounting information emerged in the United Kingdom, and the experts engaged in these tasks were named financial auditors officially appointed by the royal (Avder, 2007). A similar situation can be said for the ottoman empire. Economic life in the Ottoman Empire developed within the framework of statism. The private sector is so small that it does not require much registration. Therefore, accounting, which is a service sector, has not developed in the private sector but in the government financial management as in the western countries (Güvemli, 2013).

There was a strong central accounting organization in the Ottoman Empire. Together with the center, it is seen that there is financial organization in the states. There are accountants with titles such as the Caliph, the Chief Caliph, head of provincial treasury, Chief head of provincial treasury, Chief accountant. In this accounting organization (It was called Bab-i Defteri since the 16th century), it is seen that a state accounting method called ladder method is used and the training is carried out within the framework of master - apprentice relationship. For this reason, Ottoman accountants did not need to write accounting doctrine. As a matter of fact, there is no teaching book about the ladder method used in the Ottoman Empire for five hundred years (Güvemli, 2013). Until reorganization, Ottoman accountants used to take financial decisions, implement them, keep records, prepare and supervise reports, ie they carried out both financial and accounting functions. This situation shows the power of the profession and the organization of accounting profession. The chief head of provincial treasury is the finance minister. This continued until reorganization (Güvemli, 1998). After the reorganization, financial management was separated from accounting by the Ministry of Finance. The General Directorate of Accounting was established in 1838 for accounting (Kulaksız, 2006).

Starting from the 15th century, the use of the double entry procedure described in the book written by Luca Pacioli opened a new era in accounting science in the world. In the Law of Commerce, which was adopted in 1850 in the Ottoman Empire, the book order related to the double-entry

method was included for the first time. At the time, however, there was no accountant in the accounting profession who knew the double entry method, nor did there be a book describing the double entry method. The law was limited to facilitating the establishment of some foreign institutions, such as the Ottoman Bank, and the establishment of accounting schemes (Güvemli, 2013).

After the reorganization (1839), the accountants of the Ottoman Empire continued to do their jobs and after the transition to double-entry method in 1879, they successfully applied the double-entry method in government accounting. The improvement in the government accounting within the General Directorate of Accounting is not as effective as the state accounting profession before the reorganization. In addition, when the ladder method began to have difficulty in meeting the accounting needs of state-owned industrial enterprises, most of which were based on land, the search for new accounting methods started in the state and in the middle of the second half of the 19th century, the double entry method was introduced and this method was used in government accounting (Arıkan and Güvemli, 2013).

In the early years of the Republic of Turkey, the private sector was negligible due to insufficient capital, which resulted in the economy being run by the state. Therefore, first of all, state-owned enterprises pioneered modern accounting practices. In the first years of the Republic of Turkey, accounting practices in our country were copied from the practices in the West. In 1926, the Turkish Commercial Law was adopted in accordance with the conditions of the day. This law contains three books on accounting. These are copies of the general journal, inventory notebook and copies notebook (TTK, m.66). Tax laws published between the years 1926-1930 are the laws that will affect the accounting profession in Turkey considerably. These legal arrangements have paved the way for the tax-oriented development of the accounting profession (Arıkan and Güvemli, 2013). The first requirements for the establishment of the Accounting Specialization Profession in our country emerged in the 1930s, when our country started the first major economic breakthroughs. The establishment of the first public economic enterprise of our country, the industrial and mining Bank (1926), the Incentive Industry Law (1927) to encourage private industrial enterprises (1927) and the preparation of a "Account Specialism" law (1932) are among the important developments. In 1932, the first draft of the occupational law was lost in the archives of the Ministry of Finance after switching between ministries. Together with the lawyers' law enacted in 1938, the account specialism law draft was prepared by the government. But the draft, members of the accounting profession were also protested for the representation authority in the proceedings. This is the result of the

fact that most of the members of the Turkey Grand National Assembly are lawyers. (Aysan, 2006).

Founded in 1942 by Professor Osman Fikret Arkun, İsmail Otar and her 12 friends," The Association of Expert Accountants and Business Organizers" is the first organized initiative to legalize the accounting profession. In 1967 the name "Accounting Professionals Association of Turkey" which is what transformed the association today also continues to work on professional development. The legislation on tax reform in 1950 was restructured in 1960 with the income tax law. In 1964, a commission was established to develop the financial affairs and accounting systems of economic enterprises. The General Accounting section of the Uniform Accounting System was put into practice in 1972 for the economic public institutions and since 1977, the "Uniform Cost Accounting System" has been implemented (Aydoğdu, 2010). The entry of foreign capital and the opening of the Turkish economy to international markets were the result of the decisions taken on 24 January 1980. The Capital Markets Law was enacted in 1981 and then the Capital Markets Board was established in 1982. After that, the audits of the financial reports of incorporated company came to the fore. Because, according to the capital market law, incorporated company were obliged to disclose their audit reports to the public. Indirectly, all these events constituted the infrastructure of the accounting profession. Of the accounting profession in Turkey it has led to become official.

The legal limits of the accounting profession have been determined by the Law No. 3568 on Independent Accountancy, Certified Public Accountancy and Sworn-in Certified Public Accountancy, adopted on 01.06.1989. With the 1st article of the Law No. 5786 published in the Official Gazette dated 26.07.2008 and numbered 26948, the name of the Law No. 3568 was changed to "Certified Public Accountancy and Sworn-in Certified Public Accountancy". According to the law, the accountant must do the following (Law No:3568, art.2);

a) In accordance with generally accepted accounting principles and the provisions of the relevant legislation, to keep books, to prepare balance sheet, profit and loss statement, declarations and other documents and to perform similar works,

b) To establish or develop accounting systems, to regulate or advise on business related to accounting, finance, financial legislation and their applications,

c) On the issues mentioned in the above paragraph (a and b), based on the documents, to make examination, analysis, audit, to give written opinion on issues related to financial statements and declarations, to

prepare reports and similar, to perform arbitration, expert witness and similar works

Sworn-in certified public accountant, except for the works listed in paragraphs b and c above, who can carry out the approval works within the framework of the regulation issued according to the 12th paragraph of the Law No. 3568. On the other hand, certified public accountant perform only the tasks listed in items a, b and c. After determining the legal limits of the accounting profession, the accounting and auditing standards to be applied by the accountants were needed. Because Turkish accountants have carried out all the practices they have done so far within the framework of tax laws. Therefore, Turkey Accounting and Auditing Standards Board was established on 09.02.1994. The Board has started to prepare accounting and auditing standards through commissions. The purpose of the Board was to achieve uniformity in the accounting principles based on the financial statements of the enterprises and other organizations operating in the whole country. For this purpose; Ministry of Finance, Ministry of Industry and Trade, Higher Education Authority, Banking Regulation and Supervision Agency, Turkey Chambers and Commodity Exchanges members and members of the Board have developed national accounting standards compatible with international accounting standards together. Another development that has been added by Law No. 4487 dated 15.12.1999 in accounting standards, Turkey Accounting Standards Board has been established with Capital Market Law (Law No. 2499). Board started its first meeting on 07.03.2003 (Uçma, 2005). The purpose of the Board was to develop accounting standards just like the Turkish Accounting and Auditing Standards Board. However, the standards developed by this board were binding for companies subject to Capital Market Law. The Capital Market Board and The Banking Regulatory and Supervisory Board had decisions to support the standards set by the Board. Therefore, after this stage, the two Boards had a say in determining accounting standards. There was no fundamental difference between the standards set by the two boards. The basis for both was international accounting standards. However, Turkish versions of the standards differ due to differences in translation and interpretation. These two headings in setting standards continued until the establishment of Public Oversight Authority. Full name of institution is Public Oversight, Accounting and Auditing Standards Authority Of Turkey (KGK). KGK was established in Turkey in accordance with "Public Oversight, Accounting and Auditing Standards Authority's Organization and Responsibilities Decree Law" numbered 660, issued on November 2, 2011. The KGK is a governmental, non-profit, regulatory body, and the sole supreme authority in determining accounting and auditing standards and ethical rules, authorisation and registration of independent auditors and

audit firms under a public oversight system and monitoring their activities within the frame of quality assurance. The KGK is responsible for setting standards that ensure the preparation and auditing of financial statements in compliance with international standards. The KGK is also responsible for achieving an effectiven public oversight in Turkey (KGK,2019).

After KGK established, the latest development affecting the accounting profession in Turkey, companies' journal must be transferred in accordance with theis to electronic media. The Ministry of Finance and the The Ministry of Customs and Trade have communiqués numbered 1-2 and 3 on electronic bookkeeping. According to the communiqués, companies that are obliged to switch to the e-invoice application and companies subject to independent auditing should be included in the electronic journal (bookeping) application (Communiqué No.3, prg.1). The integration of technology into the accounting profession has once again questioned the development needs of the profession by educationalist. First of all, technological developments have affected the accounting records and the records have been kept through computers. The use of computers has eliminated errors in accounting records and helped transfer information quickly. Since the second half of the 20th century, new recording and reporting techniques have been developed in areas such as human resource accounting, social accounting, inflation accounting and international accounting standards. Thus, the basis for the formation of new sub-units of accounting was prepared (Güzel, 2010).

Nowadays, the weaknesses of the accounting profession have decreased with the use of computer technologies and has increased the information quality of accounting. Previously, manually, financial transactions were transferred to the ledger from the journal and then to the periodic checks with trial balance. Since the mid-90s, members of the profession have been recording on a computer and through accounting package programs. In this way, the transactions are accelerated and become more accurate and reliable. Computerized accounting system has increased the functionality of accounting by increasing the accuracy of accounting information. Accountants, who have found solutions to accelerate the collection of financial information, have ensured that the entity's current transactions are accurately reported. The amount of financial reports has improved with the use of computers. Operating profit or loss is much more easily accessible. Due to the developing technology, it is inevitable that there will be differentiation in the accounting profession. Frey and Osborne (2017) investigated the suitability for technology in the future for 702 occupational groups. In this study, occupational groups at risk as a result of technological developments and the possibility of computerization of these occupations were questioned. According to the findings of the research, accounting

and auditing staff will be affected by the development of technology with probability of 94 percent (589th place). Therefore, accounting and auditing profession is among the most affected professions.

## 2. Future of Accounting Profession

With the developments in digitalization and artificial intelligence technology, the expectations of the institutions regulating the rules of accounting profession have increased. This situation shows that there will be significant change and transformation in the future of the profession. accounting professional organizations and universities; it is necessary for the members of the profession to make studies and arrangements to improve their future formations (Türker, 2018).

The most important factors affecting the digitalization process of accounting is computer, internet and information and communication technologies. As a result of technological developments in the last ten years, the accounting profession has been introduced to new concepts and products such as e-declaration, e-ledger, e-invoice, smart cash register systems and so on. In order to make the accounting profession more effective than it is in the 21st century, it must be able to respond to the technological changes and developments that the accounting profession will experience in the process of digitalization and electronic transformation. Therefore, the accounting profession needs a new modeling (Tekbaş, 2017).

In the study conducted by Uzay (2004), some evaluations were made regarding the future of accounting profession. According to Uzay, since the financial reporting will be done by taking into consideration the global interest groups, the degree of freedom of accountant in accounting, reporting and interpreting the transactions will be far below its current level. Therefore, in parallel with the globalization, as the accounting profession has gained a dynamic structure, members of the profession are obliged to continuously renew their professional knowledge and experience. Outsourcing (such as software development, call centers, such as product development and back-office accounting) could pose a threat to the future accountants addicts in Turkey. Therefore, it will be necessary to take advantage of opportunities. The common language of accountants should be international accounting standards. Although compliance with international standards has gained importance in our country in recent years, the weight of tax laws in the accounting system continues. Therefore, a uniform accounting plan in line with international accounting standards is needed. In the new economy accountants are shown as an information company. The information company is usually a service company with highly trained staff and able to solve complex problems in different sit-

uations. Therefore, individual creativity is at the forefront. Important issues for the accounting profession; education, good professional judgment, project management skills, ethical and strategic thinking in a broad business perspective. In order for a professional accountant to have a strong future; must have high communication skills, understand technology, think strategically and participate in continuous learning process. Accountants should go beyond accounting's record and summarize function and start making comments. It should transform the data into information and make decisions that will create added value. In this regard, it is seen that in many government universities, financial statement analysis courses are taught by members of the faculty of finance. Therefore, those interested in accounting should develop their ability to provide financial advice. Nationwide training and raising the intellectual level of business owners and managers is closely related to the development of the accounting profession. Ensuring economic development for Turkey should be a center of attraction for investors inside and outside. The fact that independent accountants serve a small number of clients creates a possibility for them to sacrifice the principle of independence. The growth of accountants through mergers is not only important for independence, but also strengthens in areas such as technical knowledge, experience and expertise and will contribute to the increase in business volumes. As a result of advances in technology, the time and space constraints of accountants have ended (Uzay, 2004). In order to operate in the digital age, digital infrastructure must be established. This requires sufficient hardware and software to identify customer needs and to transmit accurate and reliable information. Indeed, the concept of Industry 4.0, proposed by Henning Kagermann et al. (2011), points to a different technology. Smart software developed for the development of smart products, realization of new business models, new services emerged with the use of big data, response to individual consumer requests, instant engineering and instant response to problems were offered to humanity with Industry 4.0 (Kagermann and Wahlster, 2013). It was unthinkable that such a technological change would not affect the accounting profession. Enterprises accelerated their technological transformation by improving their procurement, production, service, sales, finance, accounting and human resources processes through Enterprise Resource Planning (ERP).

ERP programs are integrated programs that concern not only accounting but also other departments of the enterprise and concern the users of information as a whole. Thanks to the technological transformation of Industry 4.0, the basic functions of the accounting profession will be carried out quickly and accurately. It is clear that it is not enough for the professionals who perform the basic functions of accounting to know only accounting package programs. Because, it should be remembered that this

new technological order will need people who will build or setting the system rather than the person who will perform the system entry (Erturan ve Engin, 2018). For this reason, professional accountants who are familiar with technology will be needed. The basic functions of accounting such as recording, classification and reporting with technological transformation will be performed with fewer people.

The Bookeping-Declaration System was developed with the General Communiqué of The Tax Procedure Law (Serial No. 486) published in the Official Gazette dated 17.12.2017 and numbered 30273. Accordingly, self-employed persons, the taxpayers holding books on a business account basis and the taxpayers subject to the simple procedure will have to keep the records an electronic environment (Serial No. 486, prg.1). This will provide a real-time flow of information between the entity, the accountant and the government, and the reporting system will operate more effectively. Technological developments will not affect the expert witness or consulting activities of the accounting profession, but will cause changes in bookkeeping, issuing declarations and attestation functions. In this manner, with the help of e-documents to e-journals will be filled and thus e-reports will be obtained and these will be stored as e-archives in cloud technologies. As the whole process is digital, expectations from the accounting profession will also change with Industry 4.0 (digital transformation). Such that audit, which is one of the most important areas of accounting, will also change (Kablan, 2018). First of all, the auditor will work independently of the place and time. Secondly, the auditor's methods of collecting evidence will vary. While physical counts are important in the past, technological counts will gain importance in the future. Thirdly, the control of documents (e-documents) will be either simultaneous or online. Thus, the agreement will be achieved digitally. Finally, the effect of digital transformation on the audit will be in terms of the number of audit staff. Faster auditing will be with fewer audit persons.

As a result of technological developments such as artificial intelligence and blockchain technology, accounting systems that are protected with high security, that have the ability to learn will occur and perform basic accounting transactions such as sales, cost, invoice tracking, liquidity calculation. There is a need to redesign the accounting profession for this new order. In order to prepare the accounting profession for the future, the concept of accounting engineer that brings together accounting and engineering can be mentioned. Accounting engineering is the redesign of the accounting profession within the framework of engineering capabilities (Tekbaş, 2018a). On the basis of accounting and engineering, there is gathering, analyzing, developing solutions, and ultimately reporting these solutions and outputs to decision-makers. Both sciences act with input-process-output

phenomena (Yükçü ve Atağan, 2010). Engineering skills will contribute to professional accountants in analyzing, interpreting, solving problems and developing strategies. It will take the accounting profession far beyond the traditional methods of recording, declaring and reporting. In this way, professional accountants will be able to manage their operations easily by adapting to the digital systems such as e-applications of the Ministry of Finance (Tekbaş, 2018b). To summarize, the accounting engineer is the person who creates, analyzes and interprets the financial statements and solves the financial problems in accordance with the mathematical principles efficiently, economically and the standards, and creates the financial structure and future of the enterprises with use intensive technology. Accounting engineer have the characteristics of engineering profession, for this reason analytical thinking and consequently problem-solving skills will increase for accountants. Especially in our country, we will move away from tax-oriented accounting profession. A natural effect of this will be on accounting education. Accounting education will have to be reshaped by the mentioned technological transformation. Accounting education using technology as a tool (computers, sound systems, projection devices) should be transformed into a blended education system with technology and thus accounting education should be provided with tools such as simulations, simultaneous online software, and mobile applications.

Industry 4.0, humanoid machines (smart machines), learning and self-revising systems, smart production systems, smart racking systems, smart warehouses, smart suppliers, smart customers, smart stock etc.) it is thought that an accounting system will be established in which the data produced with is recorded in full time. In this intelligent system, the accountant will be the one who designs the system, completes the process and reports and analyzes and interprets the obtained data (Erturan and Ergin, 2018). A variety of accounting programs that mediate the accounting information system are produced by computer programmers and software engineers. However, who write these programs due to the lack of technical knowledge of the software developers about the accounting information system, it may be insufficient to produce solutions. In this case, accounting software engineering, which is one of the professions created by technology, can be mentioned. Accounting software engineering can be defined as an engineering branch that has both the technical infrastructure of accounting information system and also computer software knowledge and can respond to the expectations of the enterprises in today's technological environment (Tereman, 2019). Because of all these developments; professional organizations and universities should promote and support technological innovation. Since digital systems will be used in all areas of

the accounting industry, the infrastructure of accounting education should be ready for digital transformation.

## 3. Digital Accounting Courses Status in Higher Education Program

From now on, the accounting industry will need a workforce with new technological skills New generation accountants will move from traditional accounting to lean accounting. In general, lean accounting, is the collection of principles and processes that provide numerical feedback for manufacturers implementing lean manufacturing and lean inventory practices. In other words, concepts designed to reflect the financial performance of a company that has implemented lean manufacturing processes. These may include organizing costs by value stream, changing inventory valuation techniques and modifying financial statements to include nonfinancial information (Kroll, 2004). In summary, all transactions related to accounting are based on zero error target, faster, easier, useful and more cost-effective, etc. pathways and methods are investigated and applied (Can ve Güneşlik, 2013). Therefore, error-free, low-cost and technological accounting will require the reconstruction of accounting education.

In recent years, there are increasing studies on issues related to digital accounting, Industry 4.0, accounting profession and accounting education. Especially in Europe and America, it is possible to come across studies involve practices involving accounting education and digital accounting. Holtzblatt and Tschakert (2011), McPeak et al (2012), Carenys and Moya (2016) and Watty et al (2016) are examples of this. Although studies as well as in said area in Turkey. Due to it is new topic and the radical changes are not existing accounting course catalog, almost all of the studies are theoretic. Most of the studies are based on concept descriptions and expectations. Demirkan and Coşkun Arslan (2019), Yardımcıoğlu et al (2019), Dursun et al (2019), Kaya et al (2019), Erturan and Ergin (2018), Kablan (2018), Tekbaş (2017, 2018a, 2018b), Tektüfekçi (2018), Hiçyorulmaz (2018), Akbaba (2019) and Tutar (2019) are examples of this.

In this part of the study, unlike the other Turkish studies, accounting curriculum catalog analysis of related faculties, social sciences vocational colleges and vocational high colleges in Turkish higher education system was conducted. In the curriculum catalogs of related departments; it has been investigated whether there are lessons in accounting engineering, digital accounting, accounting software engineering. The lesson with the name of computerized accounting in the curriculum catalogs is excluded. Because this is a lesson that is given in order to teach accounting package program in many universities since the beginning of 2000s and does not

include technological transformation. However, this lesson can be integrated with ERP in universities that adapt to the technological revolution. Scope of this study the curriculum content of 45 social sciences vocational colleges, 112 universities faculties of economics and administrative sciences and 140 vocational colleges were searched. New topics such as digitalization of accounting and accounting engineering were investigated in the curriculum content by keywords. However, lessons' name related to new accounting fields were not found in the curriculum content. Therefore, lessons that may contain information in these areas were re-screened. As a result of the re-screening, a total of 13 lessons in the faculties of economic and administrative sciences that could include the subject of digitalization of accounting were found. The names of the lessons are respectively; accounting and information systems, accounting organization, information and business technology in financial applications, accounting system and organization, accounting information systems, accounting system design. After the lessons found, the lesson contents were examined. Although the names of some lessons were different, they were found to be the same or very similar in content. According to the lessons content; accounting change process, accounting information flow, accounting system with technology, development of accounting information system topics are included in the lesson subjects. However, it is not possible to determine the extent to which these subjects are conveyed to the students by teaching staff or to which topics are mentioned. In order to make a determination on this subject, surveys can be conducted for the students who take the lessons. Another result that should be emphasized is that these lessons are not compulsory. These lessons are offered to students as elective lessons.

A total of 45 curriculum of social sciences vocational colleges were examined and the same name lesson was found in four different universities which might be related to the digitization of accounting. Accounting systems and organization lesson is compulsory lesson in these colleges. It is seen that the lesson contents are quite similar to the previously mentioned lesson contents. Information about the lesson and how much is discussed were not found. In addition, in proportion, it is seen that there are less related lessons in social sciences vocational colleges than faculties of economic and administrative sciences.

In 140 vocational high colleges examined, only four universities were found to have lessons could be related to digital accounting. These lessons are in department of accounting and tax applications of collages. These lessons could not be found such as in department of business and banking insurance of vocational colleges. When the lessons contents are examined, it is seen that the subjects are very similar to the subjects of the other les-

sons. Another result that should be emphasized is that these lessons offered to students as elective lessons.

## 4. Conclusions and Recommendations

Digitalization is a fact that must be applied in accounting profession. Digital accounting has been directed traditional accounting methods from tax calculation and bookkeeping purposes towards produce information, interpreting and analyzing. In the face of this inevitable technological transformation, the accounting profession and education will have to be reshaped. First of all, the idea of using technology as a tool should be avoided. The use of technological products and services in the enterprise or in education is not sufficient for the transition to digital accounting. For example, the establishment of an advanced ERP system in the business does not enable it to function in a healthy and appropriate way. However, if there are accounting engineers who can analyze and edit this system for the purposes of the enterprise, digital accounting will be established in business. New professions that come into our lives with Industry 4.0, such as accounting engineering and accounting software engineering, will eliminate the shortcomings and weaknesses of the accounting profession. Therefore, accounting occupation and education should be established according to the new world order.

It is aimed to provide digital transformation by e-journal applications of accounting professionals and businesses. However, the main purpose of this digital transformation by the governent is to combat the informal economy and to prevent tax loss. Because with this new system, the government can collect taxes with electronic foreclosure application. In addition, the fact that the digital transformation targets only taxpayers, that no significant revision in the education system is closely related to this situation.

In this study, the place of lessons such as digital accounting, accounting engineering and accounting software engineering in universities was examined. For this purpose; curriculum of the faculty of economics and administrative sciences and social sciences vocational colleges and vocational colleges in Turkey were searched. In the preliminary examination, there were no lessons or departments related to the subject areas. For this reason, the lessons that are thought to be related to these areas have been searched by keywords. Curriculum of 11.60% of the faculties of economic and administrative sciences, 8.88% of social sciencesvocational colleges and 2.85% of vocational colleges were found to be related to the digitization of accounting. The content of the lesson was found to be the same or very similar to each other. In addition, it was not possible to obtain information about the teaching the lesson and how much they talk about. Clear-

er and more accurate information can only be determined by the surveys to be given to the students taking the lessons. This is also an issue that needs to be studied. Because only with this information can it be determined whether the topics related to digital accounting are transferred to the students. The fact that there are almost no lessons with digital transformation in accounting is worrying for our country's future in this area. Because the transformation of accounting is directly related to the accounting education given. Therefore, the curriculum must be revised and adapted to the technological revolution. Of course, the infrastructure needs of universities must be met to ensure such a change. Technological infrastructure is the most important tool of technological transformation. The relevant technological products (software and hardware) must be included within the universities in order to provide these trainings. Because today, education is not only a classroom, a board and a books trio. There is now a need for technological laboratories (formerly name is classroom) which social science students can use. Another problem to be overcome in this regard is the presence of the teaching staff who can provide the training in question. A significant number of current teaching staff have had a profession before the emergence of Industry 4.0. Hence their training was traditional. For this reason, it is not easy for them to reflect the technological change in their lessons. Especially teaching staff who do not provide consultancy, do not interact with businesses (do not do business in the market) have no opportunity to get to know these technologies closely. In this case, training of trainers comes to the agenda. With the trainings to be taken from the professional institutions related to the new technological revolution, the lack of knowledge of the teaching staff on the subject can be somewhat remedied. In this way, new curriculum can be opened. With the opening of new lessons curriculums, new departments and new faculties will be opened. Thus, graduates of the new education system will have more information about digital accounting. This will pave the way for further changes in both the accounting profession and accounting education.

# REFERENCES

486 Sıra Nolu Vergi Usul Kanunu Genel Tebliği (2017). https://www.gib.gov.tr/486-sira-nolu-vergi-usul-kanunu-genel-tebligi (Erişim Tarihi: 18.09.2019)

Arıkan, Y., Güvemli, B. (2013). Türkiye'de Muhasebe Mesleğinin Gelişimi ve İstanbul Serbest Muhasebeci Mali Müşavirler Odası. Muhasebe ve Finansal Tarih Araştırma Dergisi, (5), 33-67.

Avder, E. (2018). Geçmişten Günümüze Muhasebe Mesleği. http://www.muhasebetr.com /yazarlarimiz/erdogan/008/ (Erişim Tarihi: 10.09.2019)

Aydoğdu, A. (2010). Günümüzde Muhasebe Mesleği. https://www.muhaseben-et.net/makale_ ali%20aydogdu_smmm_gunumuzde%20muhasebe%20meslegi.html (Erişim Tarihi: 16.09.2019)

Aysan, M.A. (2006). Türkiye'de Muhasebe Mesleğinin Gelişimi. Mali Çözüm Dergisi, (37), 6-14.

Buyruk Akbaba, A. (2019). Bulut Muhasebe ve İşletmelerde Uygulanması. Muhasebe ve Finansman Dergisi, (82), 21-40.

Can, A. V., Güneşlik M. (2013). Yalın Yönetim Felsefesinin Önemli Bir Boyutu Olarak Muhasebede Yalınlaşma Düşüncesi ve Bir Yalın Muhasebe Uygulaması Örneği: Kendine Faturalama. Muhasebe ve Finansman Dergisi, (57), 1-22.

Carenys, J., Moya, S. (2016). Digital Game-Based Learning in Accounting and Business Education. Accounting Education, 25(6), 598-651.

Demirkan, S., Coşkun Arslan, M. (2019). Endüstri 4.0 ve Muhasebe Sistemine Etkisi Üzerine Kuramsal Bir İnceleme. Enderun Dergisi , 3 (1), 40-56.

Dursun, G., Ektik, D., Tutcu, B. (2019). Mesleğin Dijitalleşmesi: Muhasebe 4.0. Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi, 6 (6), 263-271.

Elektronik Defter Genel Tebliği (Sıra No: 1)'nde Değişiklik Yapılmasına Dair Tebliğ (Sıra No: 3), https://www.resmigazete.gov.tr/eskiler/2019/10/20191019-4.htm (Erişim Tarihi: 05.11.2019)

Erturan, İ. E., Ergin E., (2018). Muhasebe Mesleğinde Dijitalleşme: Endüstri 4.0 Etkisi. Uluslararası Sosyal Bilimler Dergisi, (72), 153-165.

Frey, C.B., Osborne, M.A. (2017). The Future Of Employment: How Susceptible Are Jobs To Computerisation?. Technological Forecasting and Social Change, (114), 254-280.

Güvemli, O., (1998). Türk Devletleri Muhasebe Tarihi. Cilt 1, İstanbul YMM Odası Yayınları, İstanbul.

Güvemli, O., Aytulun, A. (2013). Türkiye'de Muhasebe Mesleğinin Gelişmesi ve İlk Meslek Örgütlenmesi: Türkiye Muhasebe Uzmanları Derneği -1942, Muhasebe ve Finans Tarihi Araştırmaları Dergisi, (4), 19-49.

Güzel, M. (2010). Araştırma - Muhasebenin Tarihçesi ve Gelişimi. http://www.muratguzel.net/makale/36/arastirma-muhasebenin-tarihcesi-ve-gelisimi (Erişim Tarihi: 14.08.2019)

Hiçyorulmaz, E. (2018). Muhasebede Yazilimlarin Şirket Performansina Etkisi İle Birlikte Muhasebe Mühendisliğinin Değerlendirilmesi. Hitit Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 11 (3), 2356-2365.

Holtzblatt, M., Tschakert, N. (2011). Expanding Your Accounting Classroom With Digital Video Technology. Journal of Accounting Education, 29 (2-3), 100-121.

Kablan, A. (2018). Endüstri 4.0, Nesnelerin İnterneti - Akıllı İşletmeler ve Muhasebe Denetimi. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi. Endüstri 4.0 ve Örgütsel Değişim Özel Sayısı, (23), 1561-1579.

Kagermann, H., Wahlster, W. (2013). Securing The Future Of German Manufacturing Industry Recommendations For Implementing The Strategic Initiative Industrie 4.0 Final Report Of The Industrie 4.0 Working Group. https://www.din.de/blob/76902/e8cac883f42bf28536e7e8 165993f1fd/recommendations-for-implementing-industry-4-0-data.pdf (Erişim Tarihi: 20.09.2019)

Kamu Gözetimi Muhasebe ve Denetim Standartları Kurumu (KGK) (2019), https://www.kgk.gov.tr/DynamicContentDetail/5276/Tan%C4%B1t%C4%B1m-Kitapc%CC %A7%C4%B1g%C-C%86%C4%B1(Erişim Tarihi: 16.09.2019)

Kaya, C., Türkyılmaz, M., Birol, B. (2019). RPA Teknolojilerinin Muhasebe Sistemleri Üzerindeki Etkisi. Muhasebe ve Finansman Dergisi, (82), 235-250.

Kroll, K. M. (2004) The Lowdown on Lean Accounting. https://www.journalofaccountancy. com/issues/2004/jul/thelowdownonleanaccounting.html (Erişim Tarihi: 22.09.2019)

Kulaksız, H., (2006). Public Financial Administration Of Ottoman Empire Between The Years 1838 - 1880 And Muhasebat Genel Mudurlugu (General Directorate Of Public Accounts). 11th World Congress of Accounting Historians, http://journal.mufad.org.tr/attachments /article/332/a10-public_financial_administration.pdf (Erişim Tarihi: 13.09.2019)

McPeak, D., Pincus, K. V., Sundem, G. L.(2012) The International Accounting Education Standards Board: Influencing Global Accounting Education. Issues in Accounting Education, 27 (3), 743-750.

Tekbaş, İ. (2017). Dijital Çağda Muhasebe Mesleğinin Yeniden Tasarımı: Mali Mühendislik. http://www.muhasebetr.com/yazarlarimiz/ismailtekbas/027/ (Erişim Tarihi: 10.09.2019)

Tekbaş, İ. (2018a). The Profession of the Digital Age: Accounting Engineering. http://www.iktisadidayanisma.com/upload/attachments/digerhaber-

ler/2018/24-08-2018-ismailtekbas-amerikada/The%20Profession%20 of%20the%20Digital%20Age%20Accounting %20Engineering%20 IFAC%20%C4%B0smail%20TEKBA%C5%9E%2005092018%20 Mali%20M%C3%BChendislik.pdf (Erişim Tarihi: 10.09.2019)

Tekbaş, İ. (2018b). 2050'de Muhasebe Endüstrisi. https://hbrturkiye.com/ blog/2050-de-muhasebe-endustrisi (Erişim Tarihi: 10.09.2019)

Tektüfekçi, F. (2018). Muhasebe ve Denetim Ontolojisinde E-Dönüşüm Süreci Kapsamındaki Dijital Paradigmalara Teorik ve Felsefi Açıdan Pragmatik Yaklaşım. Muhasebe Bilim Dünyası Dergisi, (20), 358-376.

Tereman, Ö. (2019). Muhasebe Mühendisliği ve Muhasebe Yazılım Mühendis-liği - Accounting Engineering and Accounting Software Engineering https://www.linkedin.com/pulse/ muhasebe-m%C3%BChendisli%C4%-9Fi-ve-yazilim-%C3%B6zg%C3%BCr-teraman-phd (Erişim Tarihi: 05.10.2019)

The Law Of Certified Public Accountancy and Sworn In Certified Public Accoun-tancy (1989). http://www.lawsturkey.com/law/law-of-certified-public-ac-countancy-and-sworn-in-certified-public-accountancy-3568 (Erişim Tari-hi: 13.09.2019)

Türk Ticaret Kanunu (1926). https://www.kanunum.com/files/kanun_tbmm_ c004_00865.pdf (Erişim Tarihi: 13.09.2019)

Türker, M. (2018). Dijitalleşme Sürecinde Küresel Muhasebe Mesleğinin Yeniden **Şekillenmesine Bakış**. Muhasebe Bilim Dünyası Dergisi, 20(1), 202-235.

Tutar, S. (2019). Endüstri 4.0'ın Muhasebe Mesle**ğine Olası Etkileri/**Possible Ef-fects Of Industry 4.0 On The Accounting Profession. Uluslararası Ekonomi İşletme ve Politika Dergisi, 3 (2), 323-34.

Uçma, T. (2005). Türk Muhasebe Hukuku'nu Oluşturan Düzenlemeler ve Türki-ye'de Uluslararası Muhasebe Standartlarına Uyum Çalışmaları. Mevzuat Dergisi, (89)

Uzay, Ş. (2004). 21. Yüzyılın Başinda Muhasebe Mesleğini Etkileyen Gelişmeler ve Geleceğe Yönelik Değerlendirmeler. Mali Çözüm Dergisi, (67), 223-241.

Watty, K., Mckay, J., Ngo, L. (2016). Innovators Or Inhibitors? Accounting Fac-ulty Resistance To New Educational Technologies In Higher Education. Journal of Accounting Education, (36), 1-15.

Yardımcıoğlu, M., Karahan, M., Yörük, A. (2019). Dijitalleşme Işığında Muhase-be Mesleğinin Geleceği. Muhasebe Enstitüsü Dergisi, (61), 35-46.

Yükçü, S., Atağan, G. (2010). Muhasebenin Mühendislik Boyutu: Ürün Ağacı ve Rota Uygulaması. Mali Çözüm Dergisi, (102), 21-38.

# AN INVESTIGATION OF THE CHANGING SPATIAL DISTRIBUTION OF PRECIPITATION IN THE SAKARYA BASIN BETWEEN 1940 AND 2010*

CHAPTER

16

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## INTRODUCTION

All members of the ecosystem are facing the effects of climate change more in the current period. The processes that have caused the upward trend in the values of greenhouse gas emissions since the Industrial Revolution have caused an anthropogenic intervention in the world climate system. This intervention, performed by human beings, also affects the hydrological cycle system along with many cycle systems that exist on the Earth and forms a pressure on the precipitation parameter, which is one of the most critical parameters of the cycle system (Arnell, 1999; Trenberth, 2011). This pressure experienced on a global scale shows its impact in different ways in different geographies of the world (Eicken et al.,1995; Türkeş et al., 1999; IPCC, 2013). Climate change has an undeniable pressure and impact on water resources (Gleick, 1989; Arnell, 1999). Besides climate change, as a result of the followed urbanization and industrialization policies due to the increasing population on a global scale, the amount of water needed is increasing every day (Vörösmarty et al., 2000; Teng et al., 2011).

In this study, the Sakarya Basin was selected as a sample. The site location map of the study area is presented in Figure 1. The Sakarya Basin is located between the northern latitudes of 37° 96' - 41° 20' and the eastern longitudes of 29° 26' - 33° 24'. There are the Western Black Sea Basin in the north of the basin, the Kızılırmak Basin in the east, and Konya and Akarçay closed basins in the south. The Büyük Menderes, Susurluk, and Marmara Basins are other neighboring basins located on the western axis of the Sakarya Basin. With an average elevation of 970 m, the Sakarya Basin takes approximately 8% of Turkey's area and has 3.44% of its renewable water potential. The study area is one of the basins where water transfer traffic between basins is the most intense on the scale of Turkey. Currently, the Sakarya Basin receives water from the Western Black Sea Basin and Kızılırmak Basin, while it provides water to the Marmara Basin.
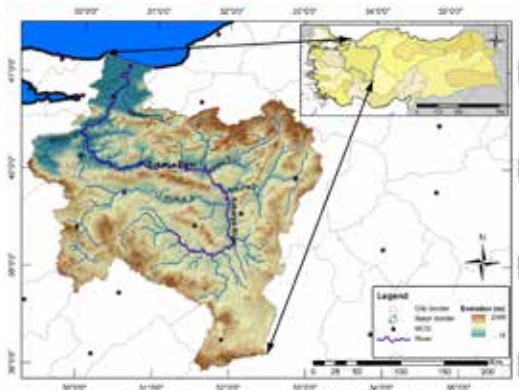


**Figure 1.** *Site location map of the study area.*

The Sakarya River, which rises 70 km southeast of Eskişehir and flows into the Black Sea, is 824 km in length. It is the second longest river among the rivers, which rise within the borders of Turkey and flow into the sea from Turkey. Its most important tributaries are the Ankara Stream, Göksu River, Karasu Stream, Kirmir Stream, Mudurnu Stream, and Porsuk Stream. The river, along with its tributaries, drains an area of approximately 63,000 km². The basin, drained by the Sakarya River and its tributaries, has a long-term precipitation height of 524 mm/year according to the data of the General Directorate of Meteorology (MGM).

The basic spatial information of the provinces located in the Sakarya Basin, which receives precipitation below the average of Turkey, is presented in Table 1. Afyon, Ankara, Bilecik, Bolu, Bursa, Eskişehir, Kocaeli, Konya, Kütahya, and Sakarya provinces are located within the basin borders. In terms of the administrative boundaries, the whole of Eskişehir, 98% of Bilecik, 97% of Sakarya, and 71% of Ankara are located in the basin. The total area covered by Ankara (28%) and Eskişehir (22%) provinces in the basin is equal to half of the basin area. The Sakarya Basin is the primary water resource of Ankara, Bilecik, Eskişehir, and Sakarya provinces in terms of the renewable water resources it has.

| Province name | The area covered by the province within the basin (%) | The part of the province area remaining within the basin (%) |
|---|---:|---:|
| Afyon | 6% | 26% |
| Ankara | 28% | 71% |
| Bilecik | 6% | 98% |
| Bolu | 7% | 53% |
| Bursa | 3% | 17% |
| Eskişehir | 22% | 100% |
| Kocaeli | 1% | 10% |
| Konya | 13% | 2% |
| Kütahya | 7% | 26% |
| Sakarya | 7% | 92% |

**Table 1.** *The shares of provinces located in the Sakarya Basin within the area of the basin (%).*

The drainage area located in the south-east of the Sakarya Basin hosts the drinking and domestic water of Ankara province. Akyar, Eğrekkaya, Kavşakkaya, Kurtboğazı, Çamlıdere, Bayındır, Çubuk I and II dams are located on the Ankara Stream and Kirmir Stream catchment areas. The drinking and domestic water needed for Bilecik province is entirely supplied by the Karasu Stream and groundwater. In Bilecik province, groundwater is used for agricultural and industrial activities. The Porsuk Stream,

which is the longest tributary of the Sakarya River, and groundwater resources, which are found to be quite shallow in the formations in which the stream moves, are essential in terms of supplying the water needed for Eskişehir province. Porsuk Dam is the primary source of drinking and domestic water of Eskişehir. However, for agricultural and industrial activities, groundwater resources operated in the Eskişehir, Alpu, and İnönü plains are utilized.

The Sakarya Basin water resources are under the direct or indirect effect of agricultural, industrial, power generation, and water supply projects. Accordingly, the basin water resources are under increasing pressure with each passing day as a result of anthropogenic interventions. In particular, the discharge of wastes generated by industrial activities to the river bed or side tributaries increases the concentration of heavy metals and causes devastation of the the basin water resources (Işık et al., 2008; Dündar et al., 2007; Balcıoğlu and Öztürk, 2009; Dündar et al., 2012; Köse et al., 2014).

The change in the amount and distribution of precipitation in the Sakarya Basin, which is under anthropogenic pressure, constitutes the most important input on the basin water budget. At this point, the change that is realized or will be realized in the amount and distribution of precipitation in the basin turns into a significant input for decision-makers in the management of water resources.

This study aimed to reveal the change in the spatial distribution of precipitation of the Sakarya Basin. According to the World Meteorological Organization (WMO), the most appropriate time to be used in forecasting models to obtain reliable climate values should cover 30 years (Jagannathan et al., 1967). By considering this basic assumption throughout the study, the change in the spatial distribution of precipitation was investigated by the selected stochastic method.

## MATERIALS AND METHODS

This study consists of two stages. Firstly, the data cluster was selected, and the data analysis was performed. Afterward, depending on the selected method, precipitation distribution maps showing the periods of thirty-five years were created, and the change was investigated. Geostatistical methods take an essential place in physical geography studies in terms of revealing the variability of the place with accurate predictions (Aydın et al., 2015). In this study, the Ordinary Kriging (OK) method, which is one of the geostatistical methods, was used. Cross-validation analysis was performed to test the results of the selected method.

Throughout the study, Geographical Information Systems (GIS) were used in order to produce the data set needed for mapping, analysis, and calculations. In this context, the ArcGIS 10.0 program and its related modules were used throughout the study.

The time series required for the application of the OK method were obtained from the MGM. The monthly total precipitation height data of meteorological observation stations (MOSs) constitute the data cluster of the study. In this context, 24 MOSs were selected, and the time series of the 1940 - 2010 period were used. When selecting the station, firstly, attention was paid to the fact that the station had a long-term continuous or least interrupted data set. At the same time, care was taken to ensure that the station was within the basin. Due to a very small number of stations that complied with this rule, station data in the neighboring basins were also utilized in the study. Throughout the study, the data clusters were compared with each other in two periods. The period between 1940 and 1975 was evaluated as the first, and the period between 1975 and 2010 was evaluated as the second period.

In this study, the Double Mass Curve of Precipitation method was used to ensure the consistency of the time series (Bayazıt, 1995). The missing data were estimated with the help of equation (1) when the difference between the annual average precipitation of the stations was more than 10%, and equation (2) when it was less than 10%.

$$Px= 1/3 \ (NX*PA/NA + \ NX*PB/NB + NX*PC/NC) \quad (1)$$

$$Px= 1/3 \ (PA + PB + PC) \quad (2)$$

In the equations, Px represents the estimated precipitation height, NX, NA, NB, and NC represent the average precipitation heights of the stations, and the PA, PB, and PC parameters represent the precipitation heights of the selected stations in the period when the data are missing.

In statistical estimation methods, in general, it is aimed to obtain spatial data that show regular distribution starting from point data that show random distribution (Daly et al., 2002). In statistical studies based on estimation, the study series should show normal distribution (ND) for obtaining reliable results (Thompson, 1983). In general, for the selected data set to show ND, the difference between the mean and median values should be close to zero, the kurtosis coefficient should be close to three, and the skewness coefficient should be close to zero (Ünver et al., 2013). With this fundamental approach, whether the time series used in the study showed ND was examined, and by applying fundamental transformations (log, ln,

sin, cos, tan, and square root), the transformation which brought the series the closest to ND was determined.

The OK method works according to a single variable (Isaaks and Srivastava, 1989). A theoretical semivariogram model should be established for the OK method. In the unbiased method, for the estimation of unknown values, assumptions that the variables are stationary and the average is constant are taken into account. Estimation weights in the OK method are based on the semivariogram model. The method aims to ensure that the average difference between the estimated values and the actual values is equal to zero. The basic equation of the selected interpolation method was presented in equation (3).

$$Z(X_0) = \sum_{i=1}^{N} W_i \, Z(X_i) \tag{3}$$

In the equation, $Z(X_0)$ refers to the Kriging value for point $X_0$, $Z(X_i)$ variables refer to the values observed at each point $X_i$, $W_i$ refers to the weight values corresponding to each $Z(X_i)$, and N $Z(X_0)$ refers to the number of points to be used in the Kriging estimation (Isaaks and Srivastava, 1989; Aydın and Çiçek, 2013).

As it is in all geostatistical studies, in the OK method, the experimental variogram should also be determined, and the theoretical model appropriate to the variogram should be developed (Delhomme, 1978). In general, the theoretical semivariogram is obtained by finding the best function representing the experimental semivariogram pairs (Chun and Griffith, 2013). In geostatistical analyses, exponential, spherical, Gaussian, and circular are commonly used semivariogram models (Isaaks and Srivastava, 1989).

The mathematical expression of the variogram cloud was given in equation (4), and the mathematical expression of the experimental semivariogram was given in equation (5).

$$2\gamma(h) = E[Z(X) - Z(X+h)]^2 \tag{4}$$
$$\gamma(h) = 0.5 \, (N_h)^{-1} \sum_{i=1}^{Nh} \, [Z(X_i) - Z(X_i + h)]^2 \tag{5}$$

In the equations, $Z(X_i)$ represents the average annual precipitation value of the station at $X_i$, $Z(X_i+h)$ represents the average annual precipitation value of the station at $X_i+h$, and $N_h$ represents the total number of station pairs that are h away (Bivand et al., 2008).

In this study, in order to determine whether the obtained theoretical parameters can represent the study area, "Leave-one-out Cross-Validation" accuracy analysis was applied as a criterion. The method tests the reliability of the selected prediction model by comparing the actual value of the predicted

point with the predicted value (Vieira et al., 1983; Isaaks and Srivastava, 1989). In this study, the Root Mean Square Error (RMSE) and Root Mean Square Standardized Error (RMSSE) measurement methods were used. The error measurement methods used are given in equations (6) and (7).

$$RMSE = [\, N^{-1} \sum_{i=1}^{N} \, [Z'(X_i) - Z(X_i)]^2 \,]^{0.5} \qquad (6)$$
$$RMSSE = [\, N^{-1} \sum_{i=1}^{N} \, [(Z'(X_i) - Z(X_i))/\sigma(X_i)]^2 \,]^{0.5} \qquad (7)$$

In the equations refers to the predicted value, refers to the observation value, refers to the standard deviation value, and N refers to the total number of data. The smaller the RMSE value is, the less the interpolation error rate is. The proximity of the RMSSE value to 1 indicates a low interpolation error rate.

## RESULTS AND DISCUSSION

In this study, in which changes in the spatial distribution of precipitation in the Sakarya Basin between 1940 and 2010 were examined, the descriptive statistical data of the original data cluster and transformed data clusters were presented in Table 2.

| Statistical Parameters | Original data set | Transformed data set | | | | | |
|---|---|---|---|---|---|---|---|
| | | log | Ln | Sin | Cos | Tan | Square root |
| Mean | 550.94 | 2.72 | 6.25 | -0.10 | -0.20 | 1.23 | 23.11 |
| Maximum | 1224.30 | 3.09 | 7.11 | 0.93 | 1.00 | 19.15 | 34.99 |
| Minimum | 337.30 | 2.53 | 5.82 | -1.00 | -1.00 | -2.17 | 18.37 |
| Median | 466.20 | 2.67 | 6.14 | -0.17 | -0.54 | 0.34 | 21.59 |
| Standard deviation | 209.52 | 0.14 | 0.33 | 0.66 | 0.72 | 4.01 | 4.11 |
| Coefficient of skewness | 0.40 | 4.95 | -3.22 | 3.40 | 3.72 | 2.62 | 3.53 |
| Coefficient of kurtosis | 2.87 | 0.10 | 0.10 | -1.47 | -1.54 | 17.41 | 1.20 |

**Table 2.** *Descriptive statistical values of long-term (1940 - 2010) data clusters.*

The maximum value of the original data set was calculated to be 1224.30, the minimum value 337.30, the median 446.20, standard deviation 209.50, the skewness coefficient 0.40, and the kurtosis coefficient 2.87 (Table 2). Throughout the study, the time series of the original data cluster was used since the difference between the mean and median values was close to zero, the kurtosis coefficient was close to three, and the skewness coefficient was close to zero.

The best mathematical function representing the experimental semivariogram for the OC method was investigated. In this context, firstly, semivariogram analysis was performed. In the analysis, the semivariogram cloud of the data set was drawn, and the experimental semivariogram pairs were obtained (Figure 2). The appropriate step distance to represent the precipitation variable in the best way was determined to be 0.5 km, and the number of classes was determined to be 12.
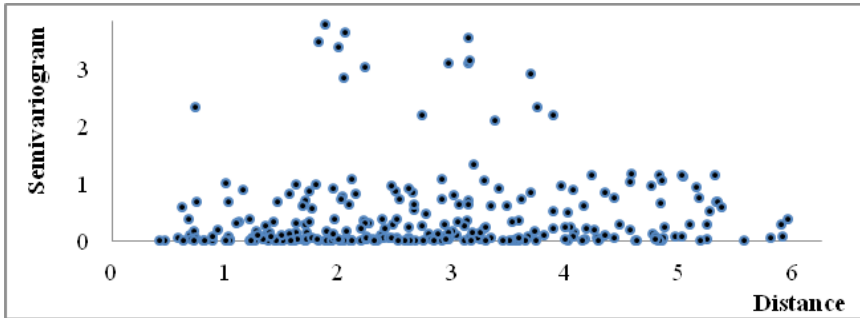


**Figure 2.** *The semivariogram cloud of the data cluster.*

The most suitable theoretical model was found by placing different semivariogram models over the experimental semivariogram pairs. In this context, the error values of the models used to determine the theoretical semivariogram were presented in Table 3.

|  | RMSE | RMSSE |
|---|---|---|
| Exponential | 174.795 | 0.988 |
| Spherical | 172.139 | 1.005 |
| Gaussian | 171.717 | 0.989 |
| Circular | 172.353 | 1.003 |

**Table 3.** *Theoretical semivariogram models and error values.*

The Gaussian theoretical model was selected as the function which represented the pairs in the best way by considering the RMSE and RMSSE values. The mapping studies conducted by using the OK method were carried out with reference to the Gaussian theoretical model.

The maps of the distribution of precipitation height in the Sakarya Basin according to the provincial administrative boundaries were presented in Figure 3 and Figure 4. Regardless of the periods, while the provinces located in the north of the basin are found in the high precipitation height zones, the provinces located in the south-east of the basin are found in the lowest precipitation height zone.
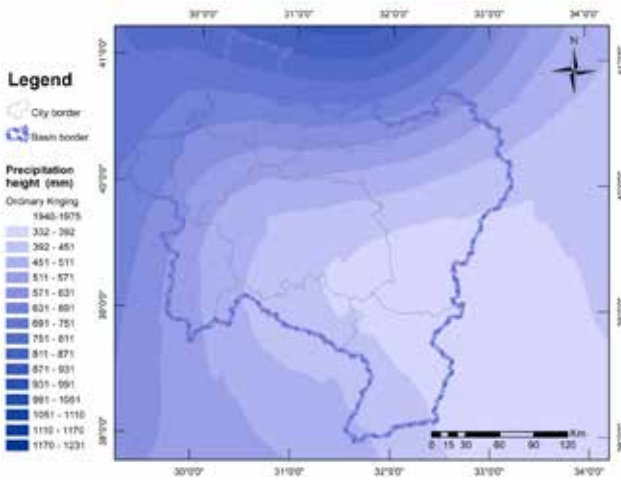
**Figure 3.** *The map of the Sakarya Basin precipitation height distribution according to the provincial administrative boundaries (1940 - 1975).*
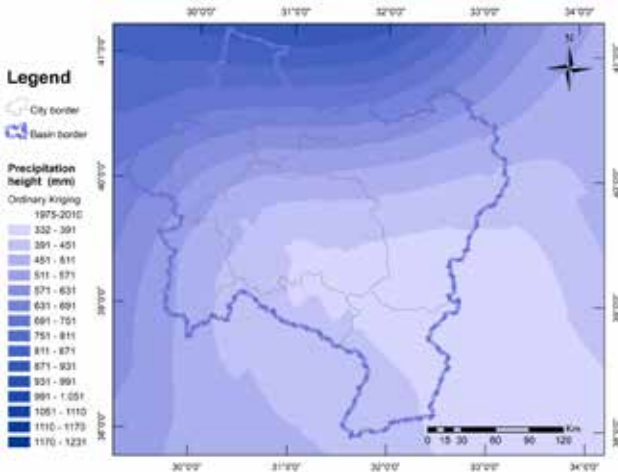


**Figure 4.** *The map of the Sakarya Basin precipitation height distribution according to the provincial administrative borders (1975 - 2010).*

The spatial distribution of the equal precipitation height zones during the periods according to the areas of provinces within the boundaries of the Sakarya Basin was presented in Table 4. According to the results of the study, the largest spatial change occurred in Afyon, Eskişehir, and Kütahya (Table 4). Accordingly, the zone boundaries with low precipitation height expanded in these provinces. The low precipitation height zone in the south of Ankara shifted further south (Figure 3 and Figure 4). In the second period, Bolu, Bilecik, Bursa, and Sakarya provinces were located in the zones with higher precipitation height in comparison with the first period (Figure 3 and Figure 4). In the second period, low precipitation height zones de-

creased spatially in the mentioned provinces (Table 4). Similarly, while during the first period, the zone with the lowest precipitation height in Kütahya changed between 451-511 mm,

| Period | Precipitation Height (mm) | Province Sakarya | Kütahya | Konya | Kocaeli | Eskişehir | Bursa | Bolu | Bilecik | Afyon | Ankara |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I | 332-391 | | | 53% | | 16% | | | | 11% | 31% |
| | 391-451 | | | 44% | | 44% | | | | 74% | 24% |
| | 451-511 | | 44% | 3% | | 34% | | | | 15% | 20% |
| | 511-571 | | 53% | | | 6% | | 13% | 42% | | 21% |
| | 571-631 | 14% | 3% | | | | 8% | 59% | 54% | | 4% |
| | 631-691 | 35% | | | 28% | | 91% | 28% | 4% | | |
| | 691-751 | 26% | | | 52% | | 1% | | | | |
| | 751-811 | 25% | | | 20% | | | | | | |
| | 811-871 | | | | | | | | | | |
| | 871-931 | | | | | | | | | | |
| II | 332-391 | | | 43% | | 46% | | | | 67% | 24% |
| | 391-451 | | 8% | 57% | | 22% | | | | 32% | 25% |
| | 451-511 | | 72% | | | 27% | | | 1% | 1% | 21% |
| | 511-571 | | 20% | | | 5% | | 9% | 40% | | 23% |
| | 571-631 | 2% | | | | | 12% | 51% | 45% | 7% | |
| | 631-691 | 26% | | | | | 73% | 36% | 14% | | |
| | 691-751 | 26% | | | 29% | | 15% | 4% | | | |
| | 751-811 | 22% | | | 46% | | | | | | |
| | 811-871 | 22% | | | 11% | | | | | | |
| | 871-931 | 2% | | | 14% | | | | | | |

**Table 4.** Spatial precipitation height change (%).

While in the first period, 44% of Kütahya administrative borders were located in the 451-511 mm zone, this rate increased to 72% in the second period (Table 4). While in the first period, Sakarya the zone with the low precipitation height decreased to 391-451 mm in the second period. province administrative borders were not located in the 811-871 mm zone, in the second period, 22% of the province was located in the 811-871 mm

equal precipitation height zone. It is clear that, in the second period, Sakarya province was spatially located in the higher precipitation height zone in comparison with the previous period.

The maps of the distribution of precipitation height in the Sakarya Basin according to the river drainage network were presented in Figure 5 and Figure 6.
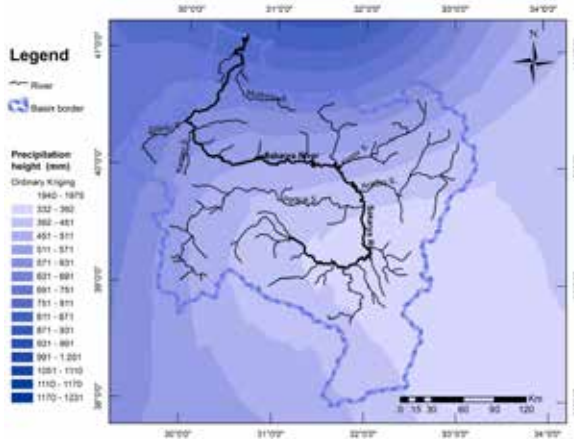


**Figure 5.** *The map of the Sakarya Basin precipitation height distribution according to the river drainage network (1940 - 1975).*
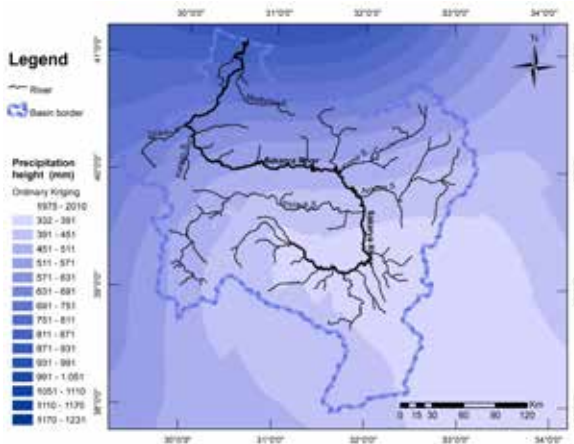


**Figure 6.** *The map of the Sakarya Basin precipitation height distribution according to the river drainage network (1975 - 2010).*

The area covered by low precipitation height zones in the Upper Sakarya drainage area increased clearly in the 1975 - 2010 period in comparison with the 1940 - 1975 period. The amount of precipitation in the Upper Sakarya Plain decreased. On the plain, the area covered by the 332-392 mm precipitation height zone increased. While the upstream of the

Porsuk Stream was located partly in the 511-571 mm precipitation height zone in the first period, it was located entirely in the 451-511 mm precipitation height zone in the second period (Figures 5 and 6). There was no significant change in the downstream part of the Porsuk Stream. No significant changes were detected in the amount of precipitation in the Eskişehir, Alpu, and İnönü plains. When the periods were compared, the area covered by the 811-571 mm and 517-631 mm precipitation height zones in the Kirmir Stream drainage area increased during the second period. No significant changes were detected in the drainage area of the Ankara Stream (Figure 5 and Figure 6). From the 1940 - 1975 period to the 1975 - 2010 period, the width of the precipitation height zones narrowed from the north to the south in the Lower Sakarya drainage area. On the other hand, zones with higher precipitation height started to spread spatially. While the downstream of the Sakarya River was located in the 751-811 mm precipitation height zone in the first period, it was located in the 871-931 mm precipitation height zone in the second period (Figures 5 and 6). The Mudurnu Stream and Göksu Stream drainage areas were located in the zones with higher precipitation height in the second period. In other words, the amount of precipitation in the Mudurnu Stream and Göksu Stream sub-basins increased compared to the previous period.

The results of this study are partially or fully compatible with the results of different studies. Altın et al. (2012) examined the precipitation and temperature trends (1975 - 2007) of the Central Anatolia Region. The examination periods and study regions coincide with the second period and the southeast of this study, respectively. Altın et al. (2012) detected a significant precipitation height decrease at Polatlı station between 1975 - 1990 and 1991 - 2007 periods. The mentioned result supports the low precipitation height trend realized during the second period in the southeast of the Sakarya Basin and shows that it is continuous around Polatlı. In the same study, a significant precipitation height increase was determined at Ankara and Sivrihisar stations between 1975 - 1990 and 1991 - 2007 periods. The mentioned result demonstrates that the low precipitation height trend realized during the second period in the southeast of the Sakarya Basin exhibited different trends in the sub-periods of fifteen years.

Yılmaz et al. (2012), explained that as the result of their study (between 1964 and 2003), it is revealed that monthly mean total precipitation has high rates of irregularity all over Turkey. They detected a irregularity trend in the northern and central parts of Turkey which covers a very large part of the Sakarya Basin. The maps which are created as a result of this study, show a very  big difference between the maximum and minimum equal precipitation height zones. Also, this result is compatible with the result of Yılmaz et al. (2012).

Aydın and Çiçek (2013) examined the spatial distribution of precipitation in the Aegean Region between 1975 and 2010 by using OK and inverse distance weighting (IDW) methods. The examination period and the northeastern part of the mentioned study area coincide with this study's second period and with Kütahya and its surroundings, located on the western border of this study. Aydın and Çiçek (2013) found that the probability of erroneous prediction increases in high mountainous areas and due to the increase in continentality. Aydın and Çiçek (2013) stated that the OK method made lower predictions, especially in Afyon, Kütahya, and its vicinity, where continentality relatively increased. In this study, the data cluster of the selected stations was dealt with in two different periods. The same stations were used in both periods, and the stations were not changed. Therefore, it is considered that a low prediction error will not form a problem in terms of comparing the maps included in the study outputs with each other.

In this study, observation values of MOSs in and outside of the basin were used together because of the requirement of continuous long-term data. The data cluster of the study consists of the data sets of eight MOSs in the basin and sixteen MOSs outside the basin. Although different transformations were applied to make the data cluster comply with ND, the data cluster did not exactly exhibit ND. This situation is thought to be caused by the elevations of the stations and the big difference between the extreme values of the data cluster. In general, the presence of too many elevation steps between the measurement points close to each other causes the precipitation parameter to change rapidly in horizontal and vertical directions (Koçman, 1993). In other words, stations located outside the basin boundaries are thought to cause a significant fluctuation between the highest (Zonguldak MOS) and the lowest (Karaman MOS) values in the data cluster, and the ability of the data cluster to represent the basin is thought to be affected adversely.

## CONCLUSION

In this study, which investigated the change that occurred during seventy years between 1940 and 2010 in the spatial distribution of precipitation for the Yeşilırmak Basin using the OK method, precipitation distribution maps were formed by taking the Gaussian theoretical model as a reference. In this context, maps revealing changes in the spatial patterns of precipitation heights belonging to two different periods were prepared. Maps show periods of thirty-five years and display the distribution of equal precipitation height zones between 1940 - 1975 and 1975 - 2010.

According to the results of the study, in the second thirty-five-year period, the precipitation height in the north of the basin was in a tendency to

increase compared to the previous period. The direction of the increase is roughly on the south-north axis. In particular, the downstream part of the river was located in the equal precipitation height zones that were higher compared to the first thirty-five-year period. In the same period, on the southern axis of the basin, low precipitation height zones, which expanded in comparison with the previous period, were mapped.

Subsequent researchers are recommended to examine precipitation change in the basin through multivariate prediction models by considering the effect of variables such as elevation, continentality, etc. on equal precipitation height zones.

# REFERENCES

Altın, T.B., Barak, B., & Altın, B.N. (2012). Change in precipitation and temperature amounts over three decades in central Anatolia, Turkey. *Atmospheric and Climate Sciences*, 2(01), 107- 125.

Arnell, N. W. (1999). Climate change and global water resources. *Global Environmental Change*, (1)9, 31-49.

Aydın, O., & Çiçek, İ. (2013). Ege bölgesindeki yağışın mekânsal dağılımı [Spatial distribution of precipitation in the Aegean region]. *Coğrafi Bilimler Dergisi*, 11 (2), 101-120.

Aydın, O., Türkoğlu, N., & Çiçek, İ. (2015). Fiziki coğrafyada jeoistatistiğin önemi [Importance of geostatistics in physical geography]. *Journal of Human Sciences*, 12(2), 1397-1415.

Balcıoğlu, E. B., & Öztürk, B. (2009). Oil pollution in the surface water of Sakarya River. *Journal of the Black Sea/Mediterranean Environment*, 15(2). 99-108.

Bayazıt, M. (1995). Hidroloji [Hydrology]. İstanbul Teknik Üniversitesi Yayınları, İstanbul.

Chun, Y., & Griffith, D.A. (2013). Spatial Statistics&Geostatistics. SAGE, London.

Daly, C., Gibson, W.P., Taylor, G.H., Johnson, G. L., & Pasteris, P. (2002). A knowledge-based approach to the statistical mapping of climate. *Climate Research*, 22: 99-113.

Dundar, M. S., & Altundag, H. (2007). Investigation of heavy metal contaminations in the lower Sakarya river water and sediments. *Environmental Monitoring and Assessment*, 128(1-3), 177-181.

Delhomme, J.P. (1978). Kriging in the hydrosciences. *Advantages in Water Resources*, 1(5), 251-266.

Dundar, M. S., Altundag, H., Eyupoglu, V., Keskin, S.C., & Tutunoglu, C. (2012). Determination of heavy metals in lower Sakarya river sediments using a BCR-sequential extraction procedure. Environmental monitoring and assessment, 184(1), 33-41.

Eicken, H., Fischer, H., & Lemke, P. (1995). Effects of the snow cover on Antarctic sea ice and potential modulation of its response to climate change. Annals of Glaciology, 21, 369-376.

Gleick, P.H. (1989). Climate change, hydrology, and water resources. *Reviews of Geophysics*, 27(3), 329-344.

IPCC, (2013), Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, and P.M. Midg-

ley (eds.)]. Cambridge University Press, Cambridge, United Kingdom, and New York, USA.

Isaaks, E., & Srivastava, R. (1989). An Introduction to Applied Geostatistics. Oxford University Press, New York.

Isik, S., Dogan, E., Kalin, L., Sasal, M., & Agiralioglu, N. (2008). Effects of anthropogenic activities on the Lower Sakarya River. *Catena*, 75(2), 172-181.

Jagannathan, P., Arlery, R., Ten, K.H., & Zavarina, M. (1967). A note on climatological normals. World Meteorological Organization (WMO), Technical Note 84, Geneva.

Koçman, A. (1993). Türkiye İklim [Climate of Turkey]. Ege Üniversitesi Edebiyat Fakültesi Coğrafya Bölümü, İzmir.

Köse, E., Tokatli, C., & Çiçek, A. (2014). Monitoring Stream Water Quality: A Statistical Evaluation. *Polish Journal of Environmental Studies*, 23(5), 1637–1647.

Teng, Y., Yang, J., Zuo, R., & Wang, J. (2011). Impact of urbanization and industrialization upon surface water quality: A pilot study of Panzhihua mining town. *Journal of Earth Science*, 22(5), 658-668.

Thompson, M. (1983). Control Procedures in Geochemical analysis. In statistics and Data Analysis in Geochemical Prospecting, Hovvarth, R.J. (eds.), Elsevier, Amsterdam.

Trenberth, K.E. (2011). Changes in precipitation with climate change. *Climate Research*, 47(1-2), 123-138.

Türkeş, M., Sümer, U.M. & Çetiner, G. (1999). 'İklim değişikliğinin bilimsel değerlendirilmesi' [Scientific evaluation of climate change], Birleşmiş Milletler İklim Değişikliği Çerçeve Sözleşmesi Seminer Notları (7 Nisan 1999, Ankara), Çevre Bakanlığı, Çevre Kirliliğini Önleme ve Kontrol Genel Müdürlüğü, 52-66, Ankara.

Ünver, Ö., Gamgam, H., & Altunkaynak, B. (2013). Temel İstatistik Yöntemler [Basic Statistical Methods]. Seçkin, Ankara.

Vörösmarty, C.J., Green, P., Salisbury, J., & Lammers, R.B. (2000). Global water resources: vulnerability from climate change and population growth. *Science*, 289(5477), 284-288.

Yılmaz, E., Çalışkan, O., Türkoğlu, N., Çiçek, İ. (2012). Türkiye'de Sıcaklık ve Yağışın Düzensizliği (1950-2003) [The Irregularity of Temperature and Precipitation in Turkey (1950-2003)]. TÜCAUM VII. Coğrafya Sempozyumu 2012, 18-19 Ekim 2012, Bildiriler Kitabı, 57-68.

# DEVELOPING A MODEL FOR IN-HOUSE NEGOTIATION MANAGEMENT IN THE CONTEXT OF PATIENT BEHAVIORS, ORGANIZATIONAL CULTURE, JOB STRESS AND JOB SATISFACTION

CHAPTER

17

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# INTRODUCTION

Globalization, competition, and constant changes in market and technology have caused an increase in the importance of human capital that an organization possesses. In order for organizations to have a maintainable competitive advantage over their rivals, they must have quality human capital and benefit from the human capital. With the comprehension of this perspective by researchers and practitioners and with the fact that human capital is the main factor in the achievement of organization's goals, organizations have started to consider how to benefit from their employees efficiently and productively and approach the human factor elaborately.

The most important resources of enterprises are humans. In recent years, to understand and analyze the human has gained strategic importance for societies and enterprises. Enterprises which have realized the importance of human factor, have tended to be more selective while hiring employees, to educate these employees again selectively, and to satisfy them by preparing them an appropriate workplace. Along with these advancements, there has been an increase in the number of studies that investigate job satisfaction and burnout in the marketing and management literature. In recent years, researchers working in the fields of positive psychology and positive organizational behavior have concentrated on how employees could work efficiently and productively.

Nowadays, the decrease in profit rates and increasing competition have begun to change the direction of interaction in institutional elements and by changing the form of duty in the hierarchical structuring, it shifted towards assuming a teamwork-oriented task. Employee management in an organization means not only managing technical skills but also managing other factors of human resources (Jegadeesan, 2007). High job satisfaction of employees is as important as financial power.

Negative emotion caused by the nature of the work or the factors originating from the organization is the job stress. The change in the adaptation process brings about changes in reactions. The job stress, which has a perceptual nature, is difficult to measure because it varies among both individuals and cultures.

Stress in enterprises causes many consequences such as the quality of work, leaving the job, absenteeism, and inefficiency. In addition to this, it can cause many physical or psychological diseases such as mental tension, high blood pressure, migraine, fatigue, ulcers, anxiety, coronary heart diseases, asthma attacks, and depression. The results of stress should be evaluated not as one dimensional but as multidimensional.

It is known that job satisfaction and trust form the basis of the contributions which are provided by the employees to the work and the organization without any coercion and which are more than expected. Job satisfaction includes mental evaluations as well as emotional evaluations and can be effective in a certain time period.

Job dissatisfaction leads to results such as reluctance to go to work, dismissal from work, desire to move away from work, lack of cooperation, feelings of insufficiency, inexact decisions, low amount and quality of work. Job stress of individuals with low job satisfaction is in increase.

The relationships between practices and techniques in management and the cultures of general community culture and special organizations have been investigated. The facts that management is related to the "human" and that "human factor" is a "societal product" have highlighted the cultural event that constitutes a society. Every enterprise organization is a small society. Therefore, this small society will have a "shared set of values", that is, a culture.

It is quite difficult to give an accepted definition of the concept of organizational culture by all researchers. In the 80s, some changes occurred in the handling and definition of this concept, which was the subject of business administration. In the first studies which attempted to define the organizational culture, the main elements of the organizational culture were emphasized, and the cultural values and norms' function of influencing the behaviors and socialization process were kept in the foreground. When the efforts to define the concept of organizational culture are examined, it is seen that the same facts are given place.

## The Purpose and Importance of the Research

The purpose of the research is to evaluate the impact of patient behaviors on job stress and job satisfaction of health professionals working at Kayseri Education and Research Hospital.

Distant goal is to contribute indirectly to the formation of health institutions with high levels of organizational culture which would have problems with patients at the minimum level and have peace at health management by diminishing sources of job stress.

Scope and Limitations

The research is limited to health professionals of Kayseri Education and Research Hospital due to time and expense limitations.

## Population and Sample

The sample specifies the process of selecting a piece from the population that reflects all the characteristics of the population that forms the subject. The sample is a small example of the whole selected. The whole group in which the sample is selected forms the population. When selecting a sample, it is important to note that the sample is representative and of sufficient size. The research done by selecting a sample can be effective in terms of time and cost as well as being valid, healthy and reliable as the results obtained by examining the whole population.

Population consists of 466 individuals working in Kayseri city center and its districts. It was aimed to reach 330 individuals in population. However, 278 voluntary participants were reached and as a result of validity and reliability analyses, 275 questionnaires were included in the evaluation. The evaluated group consists of 109 females (39,6%) and 166 males (60,4%). Detailed information about population's demographic characteristics is given in Table 1.

**Table 1.** *Frequency and percentage distribution of participants according to several variables*

| Variable | | Frequency | Percentage (%) |
|---|---|---|---|
| Gender | Male | 166 | 60,4 |
| | Female | 109 | 39,6 |
| Age | Age 18-30 | 29 | 10,5 |
| | Age 31-40 | 46 | 16,7 |
| | Age 41-50 | 70 | 25,5 |
| | Age >50 | 130 | 47,3 |
| Experience | 1-5 years | 64 | 23,3 |
| | 6-10 years | 59 | 21,5 |
| | 11-20 years | 101 | 36,7 |
| | 21 years or more | 51 | 18,5 |
| Term of employment in hospital | <1 year | 62 | 22,5 |
| | 1-5 years | 67 | 24,4 |
| | 6-10 years | 90 | 32,7 |
| | 11 years or more | 56 | 20,4 |
| Job title | Consultant Dr. | 55 | 20,0 |
| | As. Doctor | 26 | 9,5 |
| | Nurse | 118 | 42,9 |
| | Delivery nurse | 46 | 16,7 |
| | Health officer | 10 | 3,6 |
| | Medical secretary | 20 | 7,3 |

## The Hypothesis and Model of the Research
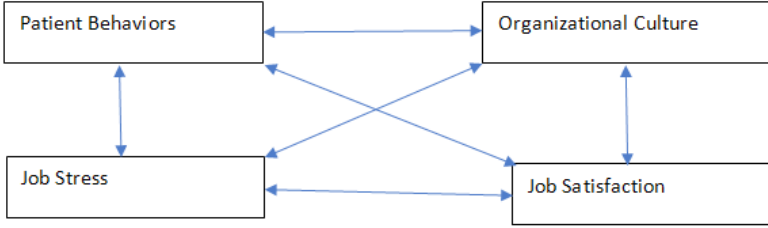


Figure 1. Model of the Research

It is assumed that there is a significant correlation between patient behaviors and organizational culture, job stress and job satisfaction of health professionals working at Kayseri Training and Research Hospital

Hypotheses of the research are as followings:

H.1. There is a significant correlation between patient behaviors, organizational culture, job stress and job satisfaction.

H.2. Patient behaviors have impacts on job stress.

## Questions and Scales Used in the Research

The data of the surveys are fundamentally formed by following subgroups. It is formed by demographic questions, patient behaviors, organizational culture, job satisfaction and job stress. The data of the surveys will fundamentally be formed by following subgroups:

The practice survey used in the study included 5 questions for demographic information, 5 questions developed by researchers (Büyüksivaslioglu and Vecheslav, 2019), for patient behavior (RMSEA= 0,051, $\chi 2$/df= 0,700, NFI= 0,997, CFI= 0,999, GFI= 0,995, TLI= 0,995, AGFI= 0,963, Cronbach Alpha= 0,895), Minnesota job Satisfaction Scale (Weiss et al, 1967) for 20 questions (RMSEA= 0,068, $\chi 2$/df= 0,868, NFI= 0,984, CFI= 0,994, GFI= 0,989, TLI= 0,989, AGFI= 0,957, Cronbach Alpha= 0,930), 63 questions (RMSEA= 0,044, $\chi 2$/df= 0,981, NFI= 0,976, CFI= 0,980, GFI= 0,978, TLI= 0,978, AGFI= 0,979, Cronbach Alpha= 0,768), for work stress, Doetinchem Organizational Stress Survey (VOSD), adapted to Turkey (Türk, 1997), 17 questions (RMSEA= 0,039, $\chi 2$/df= 0,84, NFI= 0,994, CFI= 0,994, GFI= 0,996, TLI= 0,996, AGFI= 0,968, Cronbach Alpha= 0,907), developed by Haris and Moran (1996). Surveys were conducted face-to-face on a voluntary basis. SPSS for Windows 24.0 and AMOS 24.0 statistical package program was used to evaluate the data.

Scales that consists of 5 statements was developed as being 5-point by using Likert-scale. Assessment was determined as "Strongly Disagree (1)", "Disagree (2)", "Neither Agree nor Disagree (3)", "Agree (4)" and "Strongly Agree (5)". Since it provides important advantages such as high percentage of answering and allowing to ask many questions, face-to-face questionnaire method was used in order to collect the data (Ayten, 2016).

**Table 2.** *Correlation test*

| Variables | Organizational Culture | Organizational Stress | Patient Behaviors | Job Satisfaction |
|---|---|---|---|---|
| Organizational Culture | 1 | | | |
| Organizational Stress | ,065 | 1 | | |
| Patient Behaviors | -,024 | ,002 | 1 | |
| Job Satisfaction | -,042 | ,213* | ,113 | 1 |

*. Correlation is significant at the 0.05 level (2-tailed).

When the Table above is examined, it is seen that there is a positive and one-way correlation between organizational culture and job satisfaction at the 0.213 level. Therefore, hypothesis 1 which offers the premise "There is a significant correlation between patient behaviors and organizational culture." is accepted.

**Table 3.** *Model summary for the regression analysis done for the impact of patient behaviors on job satisfaction*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,113[a] | ,013 | ,005 | ,79912 |

a. Predictor Variable: (Constant), Patient Behaviors

**Table 4.** *Anova Test for the regression analysis done for the impact of patient behaviors on job satisfaction*

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 1,053 | 1 | 1,053 | 1,649 | ,201[b] |
| Residual | 81,739 | 128 | ,639 | | |
| Total | 82,792 | 129 | | | |

a. Dependent Variable: Job Satisfaction

b. Predictor Variable: (Constant), Patient Behaviors

**Table 5.** *Coefficients of the regression analysis done for the impact of patient behaviors on job satisfaction*

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. (p) |
|---|---|---|---|---|---|
| | B | Standard Error | Beta | | |
| (Constant) Patient Behaviors | 2,482 | ,203 | | 12,207 | ,000 |
| | ,131 | ,102 | ,113 | 1,284 | ,201 |

a. Dependent Variable: Job Satisfaction

Since the level of statistical significance is p>0.05 as a result of the regression analysis, patient behaviors (p=0.201) do not have a direct impact on job satisfaction.

**Table 6.** *Model summary for the regression analysis done for the impact of patient behaviors on job stress*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,092[a] | ,009 | ,001 | ,78583 |

a. Predictor Variable: (Constant), Patient Behavior

**Table 7.** *Anova Test for the regression analysis done for the impact of patient behaviors on job stress*

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | ,680 | 1 | ,680 | 1,102 | 296[b] |
| Residual | 79,043 | 128 | 618 | | |
| Total | 79,723 | 129 | | | |

a. Dependent Variable: Job Stress

b. Predictor Variable: (Constant), Patient Behaviors

**Table 8.** *Coefficients of the regression analysis done for the impact of patient behaviors on job stress*

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. (p) |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) Patient Behaviors | 2,490 | ,200 | | 12,452 | ,000 |
| | ,105 | ,100 | ,092 | 1,050 | ,046 |

a. Dependent Variable: Job Stress

Since the level of statistical significance is $p<0.05$ as a result of the regression analysis above, patient behaviors ($p=0.046$) have a direct impact on job stress. Obtained regression formula is

Y (job stress) = 2.490+0.105 (patient behaviors)

Therefore, hypothesis 2 which offers the premise "Patient behaviors have impacts on job stress." is accepted.

Model- Innovation- Contribution to Science
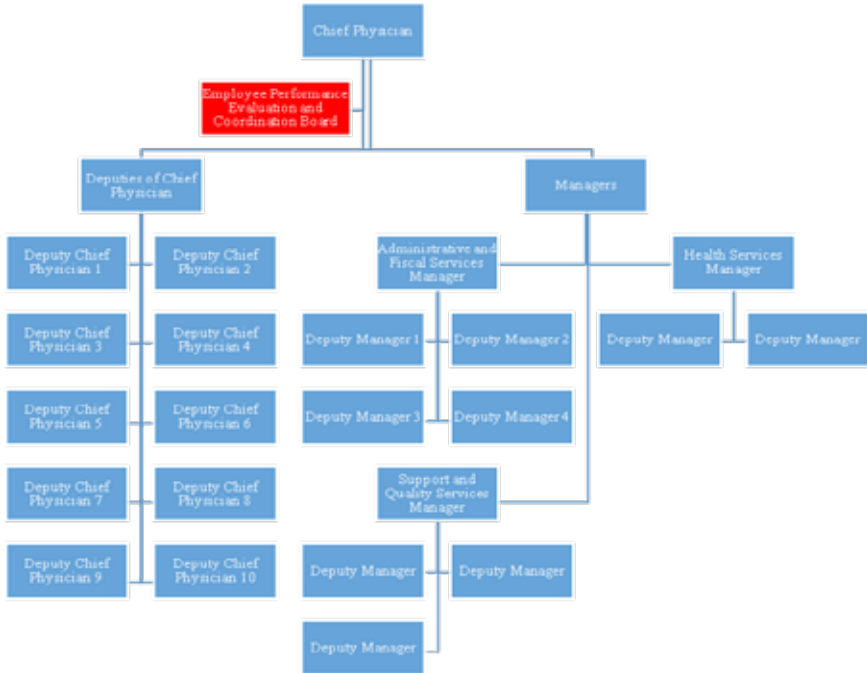


**Figure 1:** *The proposed changes in the structure of the institutional organization*

A board should be established in order to monitor the performance-based problems of health professionals. This board should consist of the relevant chief physicians, relevant managers, psychiatrists, social workers, human resources specialists, performance evaluation specialists, and trade union representatives. The members of the board should follow the work performance evaluations of the employees as well as the work environment, stress level, satisfaction levels related to the work or social environment, the fitness of the institution or the unit to themselves, and personal or academic development. The elements that can be formed on these issues should be determined in advance and necessary precautions should be taken. If necessary, obtaining the support of staff and stakeholders, the focus should be shifted on solutions a wide participation. When there occur problems in a particular unit, there should be a focus on solving the prob-

lem only with those concerned (unit employees, those who get the service, managers, etc.).

The selection of the members of the board from experts, practitioners, or managers will increase the comprehension of the problems as well as the capacity to produce more effective solutions to the problems.
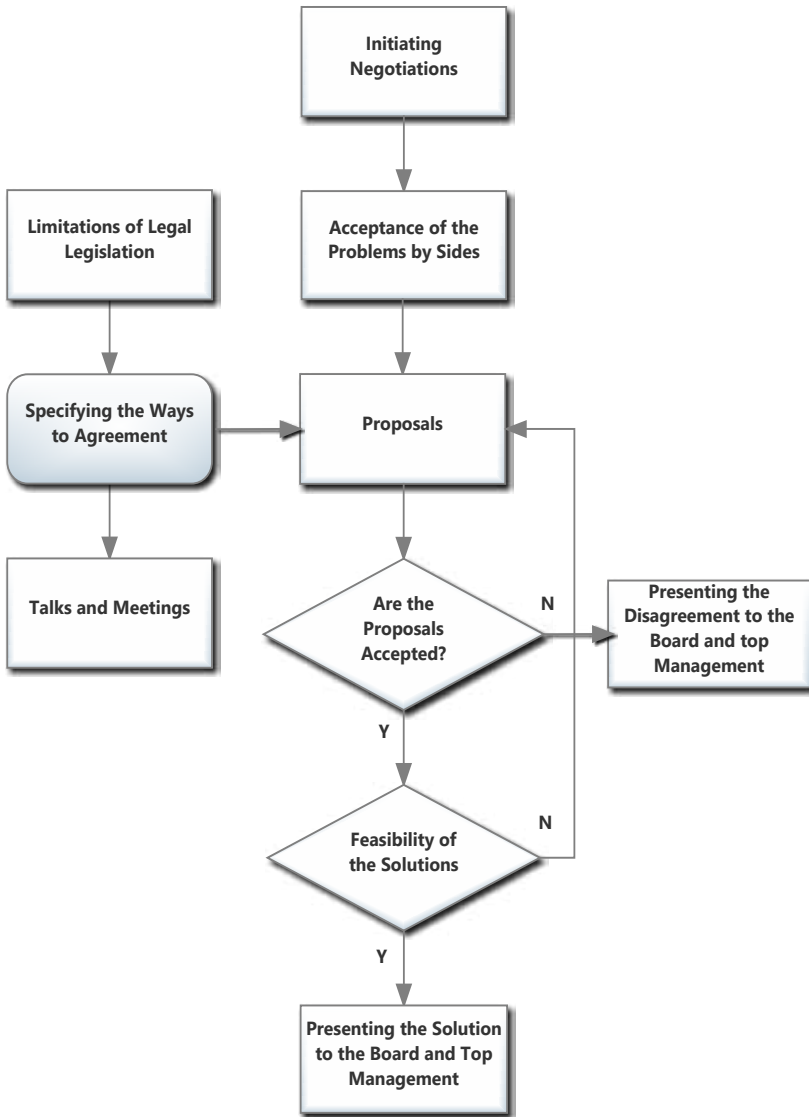
**Figure 2:** *Solution of the problems by negotiation*

The negotiation process should be carried out in the board as above. The Employee Performance Evaluation and Coordination Board should resolve the problems addressed to them through negotiations among them. The first condition is to determine whether the issue addressed to them is really a problem that needs to be solved. If the issue addressed to the board is a problem that needs to be solved, the focus should be on the solutions aiming the needs, interests, and common benefits of the parties concerned.

Once the problem has been identified, solutions should be developed and dialogue should be established among the parties through effective communication. If such a path is followed, the organizational commitment of the parties will increase. In addition, new methods will be introduced to the corporate culture due to the developed method and applied methods.

While developing solutions, limitations such as legal limitations, corporate culture, work habits of employees, individual or corporate expectations, job satisfaction level, working conditions (24-hour departments etc.), additional costs and how they will reflect on people should be taken into consideration.

### Basic Coordination Function and Duties of the Board

It should be kept in mind that the reactions of individuals to stress may vary and that people pass to the resistance phase after they perceive and interpret the stress they are exposed to. If appropriate coping strategies are developed during the resistance phase, people can increase their level of flexibility for stress and, as a result, they can behave more consciously and achieve success against the negative consequences of stress. The high level of flexibility for stress leads to a regulatory effect on undesired workplace behaviors for the individual. At this stage, managers need to motivate staff. In this sense, the Board should act as the coordinator or advisory unit organizing the works.

It is possible to reduce stress levels if arrangements are made, such as opening the ways of gaining academic titles for doctors, reducing the fear of the personnel towards losing the job because of working at a public institution, decreasing the workload and providing more research opportunities, and improving wages. In order to achieve this, it can be an effective method for the academicians in the institution to use the learned resourcefulness skills to avoid the negative effects of organizational stress, to prevent psychological problems and to ensure organizational commitment. The board should support the development of mechanisms to ensure this.

Fear of losing the job that provides the comfort of life, lack of promotion, not being recognized at work, role uncertainty and expectations are

the reasons for stress. Social dialogue should be developed in organizations, especially between management and employees. Stress factors of the employees will be determined and taken under control when a strong bond is established and harmony is achieved in goals and objectives between management and employees. The biggest task here belongs to the human resources unit and to this new board.

Resting areas, toilets, and cafeterias that have physical conditions that meet the needs of employees, isolated from patients and their relatives should be established to reduce the physical and mental fatigue of the employees. The rotation of the employees who have more physical work environments and workloads in more suitable sections in terms of working conditions in line with their occupations should be carried out in coordination with this board. Such practices should be among the main functions of the coordination board.

Through the board, by setting meetings with middle and senior executives and employees from each occupational group, a sense of unity and the opportunity to express themselves should be established in employees.

## Discussion, Conclusion and Recommendations

Patient behaviors are known to vary according to staff working in private hospitals and staff working in public hospitals. In the health sector, which inherently demands intensive labor, it is important for the quality of the service that workers positively respond to situations that they achieve or are exposed to in return of their services. Necessities, which are derived from certain factors such as structure and quality of the elements involved in the service or physical structure of the place in which the work is done, can cause changes in a number of factors such as the type of the service, manners of workers and expectations of customers.

As the result of some needs, there are changes occurring sometimes automatically and sometimes planned. Some changes do not create troubles, they can arise without being noticed as a sign of organizational growth, development and a period of innovation. On the other hand, some changes can deeply affect organizational life and thus individuals' lives and create permanent changes.

Some stress factors caused by work environment are heavy workload, limited time, role conflicts within the organization, excessive formalism in organizations, poor communication within organization and distrust towards management.

Kuzulugil (2012) founded in his research that gender, age, the period of time worked in the institution, being noticeable, proficiency and moral reward are determinants of job satisfaction of workers at hospital.

In a research conducted by Fletcher, it was found that the most important factors that negatively affect nurses' job satisfaction are inability to take enough care of patients due to workload, insufficient education of auxiliary personnel and the perception that money is more important than patients' health.

In a research done by Seifert and Mathers (2013), it was determined that perceiving workload much more cause unhappiness and mental tiredness by decreasing job satisfaction.

## Conclusion and Recommendations

In our globalizing world, the patient profile of the personnel working in hospitals is also diversified. Diversification of patient profile also affects the psychological state of the personnel working in hospitals. It is known that the patient profile will behave differently. Therefore, employees at the hospital face the patient's behavior first. The level of employee interaction with job stress, job satisfaction and organizational culture in hospital is affected by patient behavior.

Enterprises established to produce goods and services to meet human needs are in interaction with the environment to which they are connected by their input-output relations. It is possible for businesses to maintain their lives for many years and perform well if this interaction is healthy. In order for this interaction to be healthy, occasional changes are needed.

The fact that job stress increases or decreases by patient behaviors differs with gender and experience factors. Job stress and job satisfaction of health professionals working at Kayseri Education and Research Hospital also differs because of the fact that patient behaviors are different according to gender and experience. Determination of personnel, who work at departments in which they intensely communicate with patients, according to gender and experience can contribute positively to workers' job satisfaction. Personnel and employment planning can be done by determining at which departments experienced male or female personnel work.

The level of organizational culture and job satisfaction was found to be a positive correlation between 0.213 and one-way.

Job satisfaction, organizational stress, and organizational culture which have been developed for our recommendations are as follows.

Employees should be given in-service training on the patient behaviors they may encounter and increased interpersonal interaction by using awareness and corporate communication resources.

Psychological resilience of personnel should be increased with stress management practices that will increase job satisfaction.

Strengthening organizational culture will also be effective in creating the image of organizational. Therefore, the fair application of organizational culture among all parties is of great importance. The effectiveness of organizational culture practices should also be evaluated and mechanisms to improve it should be developed. The regular operation of the mechanisms resulting from the organizational culture and the fair behavior of the managers have a positive effect on job satisfaction.

# REFERENCES

Ayten, MA. (2016). Strategic Sustainable Site Management in Higher Education Institutions. Journal of Higher Education, 6(3), 142–154.

Jegadeesan G. (2007). A Conceptual Framework. ICFAI Journal of Organizational Behavior, 6(4), 55. Kuzulugil Ş. (2012). Kamu Hastaneleri Çalışanlarında İş Tatminini Etkileyen Faktörlerin İncelenmesine Yönelik Bir Araştırma. İstanbul Üniversitesi İşletme Fakültesi Dergisi, 41(1): 129-141.

Seifert, R. and Mather, K. (2013). Neoliberalism at Work. Review of Radical Political Economics, 45(4), 456-462.

Türk, M. (1997). Bir Örgütsel Stres Anketinin (VOS-D), Seri Üretim, Sürekli Üretim Teknolojileri ile Hizmet Sektöründe Uygulanması. Toplum ve Hekim, 13(2),

Weiss, D. J.,Dawis, R. V. England, G. W. ve Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire", Vol.22, Minnesota Studies in Vocational Rehabilition, Minneapolis: University of Minnesota, Industrial Relations Center.

# ENVIRONMENTAL KNOWLEDGE LEVELS OF EMPLOYEES : THE CASE OF EMPLOYEES IN ESKISEHIR ORGANİZED INDUSTRIAL ZONE*

CHAPTER

18

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## I. INTRODUCTION

The natural environment, which is defined as everything that affects and affects human beings is the natural environment of human beings. Accordingly, environmental problems have existed since the early ages of humanity. Although human beings had a peaceful relationship with nature in ancient times, environmental problems entered contemporary life with the beginning of the industrial revolution. With the industrial revolution, human beings attempted to dominate nature and as a result the ecological balance was disrupted and environmental problems gained a global dimension.

Human is the basis of environmental pollution and environmental problems. The solution of environmental problems resulting from damages to nature depends on the positive change of knowledge and attitudes that shape human behaviors. In order to find solutions to the existing environmental problems and to prevent the problems that may arise, individuals who are conscious and aware of the environment should be raised and form a majority in the society.

The importance of the environment and its problems is an area that is studied intensively by the researchers. Although there are many studies on environmental awareness and environmental protection in the literature, these studies are generally aimed at students and teachers. (Pooley and O'Connor, 2000; Kabas, 2004; Makki et al, 2003; Erol, 2005; Manzanal, 2007; Kaya and Gundogdu, 2007; Kucuktuvek, 2007; A. Salam et al, 2009; Yılmaz et al, 2009; Meredith et al, 2009; Oguz et al, 2011; Aydın and Kaya, 2011; Aydın and Cepni, 2012; Derman, 2013; Karatas, 2013; Kınalı, 2014; Helvacı, 2015). In the literature environmental awareness and attitudes of students and teachers were examined in the studies related to the environment and its problems. However, no study has been found to examine the cognitive levels of the individuals in the working life especially about the environment and their problems.

## II. METHODOLOGY

The aim of this study is to examine the current knowledge levels of employees about the environment. The population of the research consists of the employees of the enterprises located in Eskisehir Organized Industrial Zone. However, due to time and budget constraints, access to all employees was taken as a sampling method. The sample of the study consists of 524 employees in the enterprises selected by simple random sampling method.

In this study, a questionnaire consisting of two parts was used to measure the knowledge level of the employees. The first part of the questionnaire consists of demographic questions prepared to determine the demographic characteristics of the employees. In the second part of the survey, in order to measure the level of knowledge of employees about the environment consist of 10 questions selected among knowledge questions in which titled "Women's Environmental Protection Information and Attitudes Determination (Example Afyonkarahisar Province)" prepared by Dudu Kucuktuvek (2007) as the master's thesis.

## III. FINDINGS

The distribution of the data obtained from the questionnaire applied to 524 employees according to demographic characteristics in order to measure the level of environmental knowledge of employees is given in Table 1.

**Table 1:** *Distribution of Employees by Demographic Characteristics*

| Demographic Characteristics | | Frekans | % |
|---|---|---|---|
| Gender | Male | 160 | 30.5 |
| | Female | 364 | 69.5 |
| Age | 25 - | 80 | 15.3 |
| | 25-30 | 128 | 24.4 |
| | 30-35 | 117 | 22.3 |
| | 35-40 | 85 | 16.2 |
| | 40-45 | 70 | 13.4 |
| | 45 + | 44 | 8.4 |
| Education status | High school | 306 | 58.4 |
| | Pre graduate | 64 | 12.2 |
| | Graduate | 131 | 25.0 |
| | Master | 21 | 4.0 |
| | PhD | 2 | 0.4 |
| Marital status | Married | 327 | 62.4 |
| | Single | 197 | 37.6 |

69.5% of the 524 employees are male and 30.5% are female. When the age distribution of the employees is examined, it is seen that 15.3% are in the age group below 25 years. 24.4% and 25-30 years, 22.3% and 30-35 years, 16.2% and 35-40 years, 13.4% and 40-45 years, 8.4% 45 years and older. 62.4% of employees are married and 37.6% are single. The distribution of the participants in terms of educational status is as follows: 58.4% are high school graduates, 12.2% are pre graduate, 25.0% are graduate 4.0 % are master and 0.4% is PhD.

In the questionnaire applied within the scope of the research, there are 10 questions to measure the level of environmental knowledge of employees. The answers given to the questions prepared according to the content of the research by using the studies in the literature are given in Table 2 as frequencies.

**Table 2:** *Distribution of Environmental Knowledge Level of Employees*

| QUESTIONS | | f | % |
|---|---|---|---|
| What is the expression that defines the concept of environment? | Environment is in which people continue their social, biological and chemical activities. | 441 | %84,2 |
| | The reaction of a reaction. | 13 | %2,5 |
| | It is the mixing of an organic, inorganic or radioactive material into the water. | 6 | %1,1 |
| | I do not know | 64 | %12,2 |
| When is World Environment Day? | 15 March | 46 | %8,8 |
| | 20 April | 13 | %2,5 |
| | 5 June | 215 | %41,0 |
| | 10 December | 7 | %1,3 |
| | I do not know | 243 | %46,4 |
| What is your source of environmental information? | School | 138 | %26,3 |
| | Print media (Newspapers, magazines, books, etc.) | 166 | %31,7 |
| | Visual press (TV, radio, conference etc.) | 313 | %59,7 |
| | From neighbors, friends and others | 23 | %4,4 |
| | Other | 38 | %7,3 |
| | I do not know | 13 | %2,5 |
| Are you a member of any environmental group? | Yes I'm still a member. your symptoms:……..) | 17 | %3,2 |
| | No, I've never been a member | 497 | %94,9 |
| | I was a former member (your symptoms:………………..) | 10 | %1,9 |
| How do you find the environmental awareness of our society? | Weak | 322 | %61,5 |
| | Middle | 167 | %31,9 |
| | Good | 35 | %6,7 |

| QUESTIONS | | f | % |
|---|---|---|---|
| Which is one of the causes of air pollution? | Expansion of the use of fossil fuels | 253 | %48,3 |
| | Disruption of the natural balance of the environment | 151 | %28,8 |
| | Emergence of climate changes | 26 | %5,0 |
| | Degradation of natural composition of air | 55 | %10,5 |
| | I do not know | 39 | %7,4 |
| Which of the measures can be taken to prevent air pollution? | Development efforts should be accelerated | 39 | %7,4 |
| | The number of industrial organizations should be increased | 11 | %2,1 |
| | Become a member of environmental groups | 33 | %6,3 |
| | **Chimneys of industrial plants should be fitted with filters** | 407 | %77,7 |
| | I do not know | 34 | %6,5 |
| Which is one of the causes of water pollution? | Drying of water resources | 25 | %4,8 |
| | Increased water consumption | 7 | %1,3 |
| | Reduction of species of living | 12 | %2,3 |
| | Disposing of factory wastes to water resources | 449 | %85,7 |
| | I do not know | 31 | %5,9 |
| Which is NOT among the factors causing food pollution? | Pesticides | 66 | %12,6 |
| | Chemical fertilizers | 32 | %6,1 |
| | Acid rains | 23 | %4,4 |
| | Recycling of garbage | 357 | %68,1 |
| | I do not know | 46 | %8,8 |
| Which is one of the factors causing soil pollution? | landfill storage | 429 | %81,9 |
| | Garbage separation | 9 | %1,7 |
| | Deposits of some products | 29 | %5,5 |
| | Household garbage disposal | 15 | %2,9 |
| | I do not know | 42 | %8,0 |

As seen in the Table 2;

- To question "What is the expression that defines the concept of environment?"; 441 employees (84.2% of the respondents) replied that "it is the environment where people continue their social, biological and chemical activities", 13 employees (2.5% of respondents) replied that "A reaction for reaction.", 6 employees (1.1% of

the respondents) replied that "An organic, inorganic or radioactive substance is mixed into the water", 64 employees (12.2% of respondents) replied that "I do not know".

- The answers of employees for question "When is World Environment Day?" are 46 employees (8.8% of respondents) replied that "15 March", 13 employees (2.5% of respondents) replied that "20 April", 215 employees (41.0% of respondents) replied "June 5", 7 employees (1.3% of respondents) replied "10 December" and 243 employees (46.4% of respondents) answered as "I don't know".

- The answers to question "What is the source of your environmental information?" are as follows: 138 employees (26.3%) were "school", 166 employees (31.7% of respondents) "print press" and 313 employees (597%) "Visual press", 23 employees "from neighboring friends" and 13 persons "I don't know".

- The distribution of the answers to the question "Are you a member of any environmental group? is as follows: While 3.2% of the employees are still members, 94.7% are not members of any environmental groups. 1.9% of the former employees were non-members.

- The answers to question "How do you find the environmental sensitivity of our society?" are as follows: 61.5% (322 people) were weak, 31.9% (167 people) were moderate, and 35 (6.7%) were good.

- The distribution of the answers to the question "Which is one of the causes of air pollution?" is as follows: 253 employees (48.3% of the respondents) "Expansion of the use of fossil fuels", 151 employees (28.8% of the respondents), "Deterioration of the natural balance of the environment", 26 employees (5%) "Emergence of climate changes", 55 employees (%) 10.5) "Degradation of the natural composition of the air", 39 employees (76.4%) "I do not know ".

- The answers to question "Which of the measures can be taken to prevent air pollution?" are as follows: 39 employees (7.4% of respondents) "Acceleration of development efforts", 11 employees (2.1% of respondents) "The number of industrial enterprises should be increased", 33 employees (6.3%) "Member of environmental groups", 407 employees (77.7%) "Filters should be installed in the chimneys of industrial plants", 34 employees (6.5%) "I do not know".

- The answers to question "Which is one of the causes of water pollution?" are as follows: 25 employees (4.8% of respondents) "Drying of water resources ", 7 employees (1.3%) "Increased water consumption", 12 employees (2.3%) reduction of living species", 449 employees (85.7%) "Water of factory wastes resources, 31 employees (5.9%) "I do not know".

- The distribution of the answers to the question "Which is NOT among the factors causing food pollution?" is as follows: 66 employees (12.6%) "Pesticides", 32 employees (2.6%) "Chemical fertilizer", 23 employees (4.4%) "Acid rain", 357 employees (68.1%) "Recycling of waste", 46 employees (8.8%) "I do not know".

- The answers to question "Which is one of the factors causing soil pollution?" are as follows 429 employees (81.9%) "Storage of garbage on soil surface ", 9 employees (1.7%) "Separation of garbage", 29 employees (5.5%) "Deposits of some products", 15 employees (2.9%) "Household garbage shredders", 42 employees (8%) I do not know".

In this study the knowledge levels of the employees according to different demographic characteristics were also examined. The distribution of these information questions by gender is given in Table 3, the distribution by age is given in Table 4, the distribution by education level is given in Table 5 and the distribution by marital status is given in Table 6.

According to Table 3 given the distribution of information questions by gender;

- 313 (71%) and 128 (29%) of those who correctly define the concept of environment as" "the environment where people continue their social, biological and chemical activities". 39 of men and 25 of women do not know the definition of environment.

- "5 June" the correct answer to the question "When is World Environment Day?" of 150 men and 65 women are. Among those who do not know the World Environment Day, the rate of men is 69.1% and the rate of women is 30.9%.

- 90 female and 160 male replied "Expansion of the use of fossil fuels" correct answer to the question "Which is one of the causes of air pollution. Of the 39 employees who are not know with the causes of air pollution 24 are men and 15 are women.

- In order to prevent air pollution, 284 of them are males and 123 of them are women who know that the chimneys of industrial fa-

cilities should be fitted with filters. 28 of the male employees and 6 of the female employees do not have any knowledge about the prevention of air pollution.

- 69.5% of male employees and 30.5% of female employees know that "Disposal of factory wastes to water resources" is among the causes of water pollution.

- 246 male and 111 female employees know that recycling of waste does not cause food pollution.

- Those who know that the storage of wastes on the soil surface is one of the reasons of soil pollution, 68.3% are men and 31.7% are women. 30 of the male workers and 12 of the female workers do not know the causes of soil pollution.

**Table 3:** *Knowledge Levels by Gender*

| QUESTIONS | | Male | | Female | |
|---|---|---|---|---|---|
| f | | % | f | % | |
| Definition of environment | Environment is in which people continue their social, biological and chemical activities. | 313 | 71 | 128 | 29 |
| | The reaction of a reaction. | 8 | 61,5 | 5 | 38.5 |
| | It is the mixing of an organic, inorganic or radioactive material into the water. | 4 | 66,7 | 2 | 33.3 |
| | I do not know | 39 | 60.9 | 25 | 39.1 |
| World Environment Day | 15 March | 30 | 65.2 | 16 | 34.8 |
| | 20 April | 10 | 76.9 | 3 | 23.1 |
| | 5 June | 150 | 69.8 | 65 | 30.2 |
| | 10 December | 6 | 85.7 | 1 | 14.3 |
| | I do not know | 168 | 69.1 | 75 | 30.9 |
| The cause of air pollution | **Expansion of the use of fossil fuels** | 163 | 64.4 | 90 | 35.6 |
| | Disruption of the natural balance of the environment | 115 | 76.2 | 36 | 23.8 |
| | Emergence of climate changes | 20 | 76.9 | 6 | 23.1 |
| | Degradation of natural composition of air | 42 | 76.4 | 13 | 23.6 |
| | I do not know | 24 | 61.5 | 15 | 38.5 |
| measures to prevent air pollution | Development efforts should be accelerated | 27 | 69.2 | 12 | 30.8 |
| | The number of industrial organizations should be increased | 7 | 63.6 | 4 | 36.4 |
| | Become a member of environmental groups | 18 | 54.5 | 15 | 45.5 |
| | Chimneys of industrial plants should be fitted with filters | 284 | 69.8 | 123 | 30.2 |
| | I do not know | 28 | 82.4 | 6 | 17.6 |

| | | f | % | f | % |
|---|---|---|---|---|---|
| The cause of water pollution | Drying of water resources | 15 | 60.0 | 10 | 40.0 |
| | Increased water consumption | 5 | 71.4 | 2 | 28.6 |
| | Reduction of species of living | 9 | 75.0 | 3 | 25.0 |
| | Disposing of factory wastes to water resources | 312 | 69.5 | 137 | 30.5 |
| | I do not know | 23 | 74.2 | 8 | 25.8 |
| The factor that does NOT cause food pollution | Pesticides | 46 | 69.7 | 20 | 30.3 |
| | Chemical fertilizers | 25 | 78.1 | 7 | 21.9 |
| | Acid rains | 17 | 73.9 | 6 | 26.1 |
| | Recycling of garbage | 246 | 68.9 | 111 | 31.1 |
| | I do not know | 30 | 65.2 | 16 | 34.8 |
| The cause of soil pollution | **landfill storage** | 293 | 68.3 | 136 | 31.7 |
| | Garbage separation | 7 | 77.8 | 2 | 22.2 |
| | Deposits of some products | 22 | 75.9 | 7 | 24.1 |
| | Household garbage disposal | 12 | 80.0 | 3 | 20.0 |
| | I do not know | 30 | 71.4 | 12 | 28.6 |

**Table 4:** *Knowledge Levels by Age*

| QUESTIONS | | 25- f | % | 25-30 f | % | 30-35 f | % | 35-40 f | % | 40-45 f | % | 45+ f | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Definition of environment | Environment is in which people continue their social, biological and chemical activities. | 69 | 15.6 | 118 | 26.8 | 94 | 21.3 | 66 | 15.0 | 55 | 12.5 | 39 | 8.8 |
| | The reaction of a reaction. | 3 | 23.1 | 0 | 0.0 | 4 | 30.8 | 4 | 30.8 | 2 | 15.4 | 0 | 0.0 |
| | It is the mixing of an organic, inorganic or radioactive material into the water. | 1 | 16.7 | 1 | 16.7 | 0 | 0.0 | 0 | 0.0 | 4 | 66.7 | 0 | 0.0 |
| | I do not know | 7 | 10.9 | 9 | 14.1 | 19 | 29.7 | 15 | 23.4 | 9 | 14.1 | 5 | 7.8 |
| World Environment Day | 15 March | 9 | 19.6 | 15 | 32.6 | 8 | 17.4 | 8 | 17.4 | 2 | 4.3 | 4 | 8.7 |
| | 20 April | 3 | 23.1 | 5 | 38.5 | 2 | 15.4 | 0 | 0.0 | 2 | 15.4 | 1 | 7.7 |
| | 5 June | 34 | 15.8 | 54 | 25.1 | 42 | 19.5 | 38 | 17.7 | 26 | 12.1 | 21 | 9.8 |
| | 10 December | 1 | 14.3 | 2 | 28.6 | 1 | 14.3 | 1 | 14.3 | 2 | 28.6 | 0 | 0.0 |
| | I do not know | 33 | 13.6 | 52 | 21.6 | 64 | 26.3 | 38 | 15.6 | 38 | 15.6 | 18 | 7.4 |
| The cause of air pollution | **Expansion of the use of fossil fuels** | 40 | 15.8 | 72 | 28.5 | 54 | 21.3 | 39 | 15.4 | 29 | 11.5 | 19 | 7.5 |
| | Disruption of the natural balance of the environment | 19 | 12.6 | 31 | 20.5 | 37 | 24.5 | 23 | 15.2 | 24 | 15.9 | 17 | 11.3 |
| | Emergence of climate changes | 5 | 19.2 | 7 | 26.9 | 1 | 3.8 | 8 | 30.8 | 4 | 15.4 | 1 | 3.8 |
| | Degradation of natural composition of air | 7 | 12.7 | 15 | 27.3 | 11 | 20.0 | 10 | 18.2 | 7 | 12.7 | 5 | 9.1 |
| | I do not know | 9 | 23.1 | 3 | 7.7 | 14 | 35.9 | 5 | 12.8 | 6 | 15.4 | 2 | 5.1 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| measures to prevent air pollution | Development efforts should be accelerated | 7 | 17.9 | 6 | 15.4 | 8 | 20.5 | 10 | 25.6 | 6 | 15.4 | 2 | 5.1 |
| | The number of industrial organizations should be increased | 3 | 27.3 | 3 | 27.3 | 3 | 27.3 | 0 | 0.0 | 1 | 9.1 | 1 | 9.1 |
| | Become a member of environmental groups | 4 | 12.1 | 7 | 21.2 | 5 | 15.2 | 4 | 12.1 | 6 | 18.2 | 7 | 21.2 |
| | Chimneys of industrial plants should be fitted with filters | 60 | 14.7 | 108 | 26.5 | 89 | 21.9 | 66 | 16.2 | 51 | 12.5 | 33 | 8.1 |
| | I do not know | 6 | 17.6 | 4 | 11.8 | 12 | 35.3 | 5 | 14.7 | 6 | 17.6 | 1 | 2.9 |
| The cause of water pollution | Drying of water resources | 5 | 20.0 | 7 | 28.0 | 5 | 20.0 | 4 | 16.0 | 2 | 8.0 | 2 | 8.0 |
| | Increased water consumption | 2 | 28.6 | 0 | 0.0 | 0 | 0.0 | 2 | 28.6 | 3 | 42.9 | 0 | 0.0 |
| | Reduction of species of living | 3 | 25.0 | 0 | 0.0 | 4 | 33.3 | 1 | 8.3 | 2 | 16.7 | 2 | 16.7 |
| | Disposing of factory wastes to water resources | 67 | 14.9 | 118 | 26.3 | 96 | 21.4 | 68 | 15.1 | 62 | 13.8 | 38 | 8.5 |
| | I do not know | 3 | 9.7 | 3 | 9.7 | 12 | 38.7 | 10 | 32.3 | 1 | 3.2 | 2 | 6.5 |
| The factor that does NOT cause food pollution | Pesticides | 15 | 22.7 | 10 | 15.2 | 15 | 22.7 | 10 | 15.2 | 9 | 13.6 | 7 | 10.6 |
| | Chemical fertilizers | 3 | 9.4 | 4 | 12.5 | 9 | 28.1 | 6 | 18.8 | 8 | 25.0 | 2 | 6.2 |
| | Acid rains | 5 | 21.7 | 5 | 21.7 | 5 | 21.7 | 2 | 8.7 | 3 | 13.0 | 3 | 13.0 |
| | Recycling of garbage | 46 | 12.9 | 105 | 29.4 | 78 | 21.8 | 55 | 15.4 | 43 | 12.0 | 30 | 8.4 |
| | I do not know | 11 | 23.9 | 4 | 8.7 | 10 | 21.7 | 12 | 26.1 | 7 | 15.2 | 2 | 4.3 |
| The cause of soil pollution | **landfill storage** | 60 | 15.9 | 117 | 27.3 | 93 | 21.7 | 69 | 16.1 | 50 | 11.7 | 32 | 7.5 |
| | Garbage separation | 2 | 22.2 | 1 | 11.1 | 1 | 11.1 | 1 | 11.1 | 2 | 22.2 | 2 | 22.2 |
| | Deposits of some products | 3 | 10.3 | 4 | 13.8 | 4 | 13.8 | 7 | 24.1 | 7 | 24.1 | 4 | 13.8 |
| | Household garbage disposal | 1 | 6.7 | 3 | 20.0 | 3 | 20.0 | 3 | 20.0 | 3 | 20.0 | 2 | 13.3 |
| | I do not know | 6 | 14.3 | 3 | 7.1 | 16 | 38.1 | 5 | 11.9 | 8 | 19.0 | 4 | 9.5 |
| | Household garbage disposal | | | | | | | | | | | | |
| | I do not know | | | | | | | | | | | | |

As seen in the Table 4 given the distribution of information questions by age;

- 29 of the employees who know the definition of environment correctly are under 25, 254 of them are 30 and over.

- 88 of those who know the World Environment Day correctly are less than 30 years old and 127 of them are 30 years or older.

- 44.3% of the employees who know that the widespread use of fossil fuels is one of the causes of air pollution are under 30 years of age.

- 60 of the employees who know that air pollution can be prevented by installing filters in the chimneys of industrial plants are under the age of 25, 108 are in the 25-30 age range, 217 are in the 30-45 age range.

- 185 employees under the age of 30, 274 employees of the age of 30 and older know that "Disposal of factory wastes to water resources" is among the causes of water pollution.

- 161 of the employees who know that recycling of garbage does not cause food pollution are under 30 years of age.

- To question "Which is one of the factors causing soil pollution? "; 15.9% of those who answered correctly as "storing of garbage on the soil surface" are under 25 years, 27.3% are in the 25-30 age range, 21.7% are in the 30-35 age range, 16.1% are in the 35-40 age range.

According to Table 5 given the distribution of information questions by educational background;

- 54.6% of employees who know the definition of environment are high school graduates.

- Those who know the world environment day are at least associate degree graduates

- 15.8% of employees who know that the widespread use of fossil fuels are the cause of air pollution are high school graduates.

- '239 of those who know that air pollution can be prevented by installing filters in the chimneys of industrial facilities have associate degree and above.

- 67 high school graduates and at least 274 associate graduates know that "Disposal of factory wastes to water resources" is one of the reasons for water pollution.

- 12.9% of the employees who know that recycling of garbage does not cause food pollution are high school graduates, 51.4% are associate or undergraduate graduates.

- 84.1% of those who know that storing of garbage on the soil surface causes soil pollution is at least associate degree graduate.

**Table 5:** *Knowledge Levels by Education Status*

| QUESTIONS f | | High School f | % | Pre graduate f | % | Graduate f | % | Master f | % | Doctoral f | % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Definition of environment | Environment is in which people continue their social, biological and chemical activities. | 241 | 54.6 | 58 | 13.2 | 122 | 27.7 | 18 | 4.1 | 2 | 0.5 |
| | The reaction of a reaction. | 11 | 84.6 | 1 | 7.7 | 1 | 7.7 | 0 | 0.0 | 0 | 0.0 |
| | It is the mixing of an organic, inorganic or radioactive material into the water. | 5 | 83.3 | 0 | 0.0 | 1 | 16.7 | 0 | 0.0 | 0 | 0.0 |
| | I do not know | 49 | 76.6 | 5 | 7.8 | 7 | 10.9 | 3 | 4.7 | 0 | 0.0 |
| World Environment Day | 15 March | 33 | 71.7 | 3 | 6.5 | 9 | 19.6 | 1 | 2.2 | 0 | 0.0 |
| | 20 April | 7 | 53.8 | 2 | 15.4 | 3 | 23.1 | 1 | 7.7 | 0 | 0.0 |
| | 5 June | 106 | 49.3 | 30 | 14.0 | 64 | 29.8 | 14 | 6.5 | 1 | 0.5 |
| | 10 December | 4 | 57.1 | 2 | 28.6 | 1 | 14.3 | 0 | 0.0 | 0 | 0.0 |
| | I do not know | 156 | 64.2 | 27 | 11.1 | 54 | 22.2 | 5 | 2.1 | 1 | 0.4 |
| The cause of air pollution | **Expansion of the use of fossil fuels** | 125 | 49.4 | 35 | 13.8 | 80 | 31.6 | 12 | 4.7 | 1 | 0.4 |
| | Disruption of the natural balance of the environment | 104 | 68.9 | 16 | 10.6 | 26 | 17.2 | 5 | 3.3 | 0 | 0.0 |
| | Emergence of climate changes | 18 | 68.2 | 3 | 11.5 | 5 | 19.2 | 0 | 0.0 | 0 | 0.0 |
| | Degradation of natural composition of air | 26 | 47.3 | 8 | 14.5 | 18 | 32.7 | 2 | 3.6 | 1 | 1.8 |
| | I do not know | 33 | 84.6 | 2 | 5.1 | 2 | 5.1 | 2 | 5.1 | 0 | 0.0 |
| measures to prevent air pollution | Development efforts should be accelerated | 26 | 66.7 | 5 | 12.8 | 8 | 20.5 | 0 | 0.0 | 0 | 0.0 |
| | The number of industrial organizations should be increased | 5 | 45.5 | 2 | 18.2 | 4 | 36.4 | 0 | 0.0 | 0 | 0.0 |
| | Become a member of environmental groups | 17 | 51.5 | 3 | 9.1 | 9 | 27.3 | 3 | 9.1 | 1 | 3.0 |
| | Chimneys of industrial plants should be fitted with filters | 233 | 57.2 | 51 | 12.5 | 105 | 25.8 | 17 | 4.2 | 1 | 0.2 |
| | I do not know | 25 | 73.5 | 3 | 8.8 | 5 | 14.7 | 1 | 2.9 | 0 | 0.0 |
| The cause of water pollution | Drying of water resources | 14 | 56.0 | 3 | 12.0 | 7 | 28.0 | 1 | 4.0 | 0 | 0.0 |
| | Increased water consumption | 6 | 85.7 | 0 | 0.0 | 1 | 14.3 | 0 | 0.0 | 0 | 0.0 |
| | Reduction of species of living | 8 | 66.7 | 2 | 16.7 | 1 | 8.3 | 1 | 8.3 | 0 | 0.0 |
| | Disposing of factory wastes to water resources | 250 | 55.7 | 58 | 12.9 | 120 | 26.7 | 19 | 4.2 | 2 | 0.4 |
| | I do not know | 28 | 90.3 | 1 | 3.2 | 2 | 6.5 | 0 | 0.0 | 0 | 0.0 |
| The factor that does NOT cause food pollution | Pesticides | 44 | 66.7 | 5 | 7.6 | 15 | 22.7 | 2 | 3.0 | 0 | 0.0 |
| | Chemical fertilizers | 20 | 62.5 | 4 | 12.5 | 6 | 18.8 | 1 | 3.1 | 1 | 3.1 |
| | Acid rains | 17 | 73.9 | 3 | 13.0 | 2 | 8.7 | 1 | 4.3 | 0 | 0.0 |
| | Recycling of garbage | 187 | 52.4 | 49 | 13.7 | 104 | 29.1 | 16 | 4.5 | 1 | 0.3 |
| | I do not know | 38 | 82.6 | 3 | 6.5 | 4 | 8.7 | 1 | 2.2 | 0 | 0.0 |
| The cause of soil pollution | **landfill storage** | 248 | 57.8 | 53 | 12.4 | 110 | 25.6 | 16 | 3.7 | 2 | 0.5 |
| | Garbage separation | 5 | 55.6 | 2 | 22.2 | 1 | 11.1 | 1 | 11.1 | 0 | 0.0 |
| | Deposits of some products | 13 | 44.8 | 3 | 10.3 | 11 | 37.9 | 2 | 6.9 | 0 | 0.0 |
| | Household garbage disposal | 7 | 46.7 | 3 | 20.0 | 5 | 33.3 | 0 | 0.0 | 0 | 0.0 |
| | I do not know | 33 | 78.6 | 3 | 7.1 | 4 | 9.5 | 2 | 4.8 | 0 | 0.0 |

**Table 6:** *Knowledge Levels by Marital Status*

| QUESTIONS | f | Married | | Single | |
|---|---|---|---|---|---|
| | | | % | f | % |
| Definition of environment | Environment is in which people continue their social, biological and chemical activities. | 271 | 61.5 | 170 | 38.5 |
| | The reaction of a reaction. | 9 | 69.2 | 4 | 30.8 |
| | It is the mixing of an organic, inorganic or radioactive material into the water. | 4 | 66.7 | 2 | 33.3 |
| | I do not know | 43 | 67.2 | 21 | 32.8 |
| World Environment Day | 15 March | 23 | 50.0 | 23 | 50.0 |
| | 20 April | 7 | 53.8 | 6 | 46.2 |
| | 5 June | 135 | 62.8 | 80 | 37.2 |
| | 10 December | 3 | 42.9 | 4 | 57.1 |
| | I do not know | 159 | 65.1 | 84 | 34.6 |
| The cause of air pollution | **Expansion of the use of fossil fuels** | 149 | 58.9 | 104 | 41.1 |
| | Disruption of the natural balance of the environment | 105 | 69.5 | 46 | 30.5 |
| | Emergence of climate changes | 13 | 50.0 | 13 | 50.0 |
| | Degradation of natural composition of air | 36 | 65.5 | 19 | 34.5 |
| | I do not know | 24 | 61.5 | 15 | 38.5 |
| measures to prevent air pollution | Development efforts should be accelerated | 24 | 61.5 | 15 | 38.5 |
| | The number of industrial organizations should be increased | 6 | 54.5 | 5 | 45.5 |
| | Become a member of environmental groups | 24 | 72.7 | 9 | 27.3 |
| | Chimneys of industrial plants should be fitted with filters | 255 | 62.7 | 152 | 37.3 |
| | I do not know | 18 | 52.9 | 16 | 47.1 |
| The cause of water pollution | Drying of water resources | 16 | 64.0 | 9 | 36.0 |
| | Increased water consumption | 4 | 57.1 | 3 | 42.9 |
| | Reduction of species of living | 7 | 58.3 | 5 | 41.7 |
| | Disposing of factory wastes to water resources | 281 | 62.6 | 168 | 37.4 |
| | I do not know | 19 | 61.3 | 12 | 38.7 |
| The factor that does NOT cause food pollution | Pesticides | 37 | 56.1 | 29 | 43.9 |
| | Chemical fertilizers | 23 | 71.9 | 9 | 28.1 |
| | Acid rains | 12 | 52.2 | 11 | 47.8 |
| | Recycling of garbage | 228 | 63.9 | 129 | 36.1 |
| | I do not know | 27 | 58.7 | 19 | 41.3 |
| The cause of soil pollution | **landfill storage** | 226 | 62.0 | 163 | 38.0 |
| | Garbage separation | 7 | 77.8 | 2 | 22.2 |
| | Deposits of some products | 21 | 72.4 | 8 | 27.6 |
| | Household garbage disposal | 9 | 60.0 | 6 | 40.0 |
| | I do not know | 24 | 57.1 | 18 | 42.9 |

As seen in the Table 6; 61.5% of the employees who correctly define the environment are married and 38.5% are single. 135 of those who correctly answered the World Environment Day on June 5; 58.9% of the employees who know that the widespread use of fossil fuels is the cause of air pollution, 255 of the employees who know that air pollution can be prevented by installing filters in the chimneys of industrial plants are married. 281 of the married employees know that "factory wastes are left to water resources" among the reasons of water pollution. 62.6% of employees who know that "recycling of garbage" does not cause food pollution and 62% of those who know that storing of garbage on soil surface causes soil pollution" are married.

## IV. DISCUSSIONS AND CONCLUSIONS

In this study, the knowledge levels of the employees of Eskisehir Organized Industrial Zone (524 employees) in environmental protection were examined. When the answers given to the questions posed to measure the environmental knowledge of the employees are examined those who answered correctly as follows:

- 441 (84.2%) employees were asked about the definition of environmental concept.

- 215 (41.0%) employees were asked to the World Environment Day question,

- 253 (48.3%) employees were asked about the causes of air pollution,

- 407 (77.7%) employees were asked to prevent air pollution.

- 449 (85.7%) employees were asked the reasons of water pollution.

- 357 (68.1%) employees were asked the reasons of food pollution,

- 429 (81.9%) employees were asked to the question of soil pollution,

It can be said that the knowledge level of the employees about the environment is above the average due to findings.

According to some demographic characteristics (gender, age, educational status, marital status);

- The respondents to the definition of environment are male (71%), 30 and older (57.6%), high school graduates (54.6%) and married (61.5%) employees

- The correct answer to the World Environment Day question on 5 June; male (69.8%), age 30 and over (59.1%), high school graduates (49.3%) and married (62.8%) employees.

- Those who responded correctly to the widespread use of fossil fuels as a cause of air pollution; male (64.4%), age 30 and over (55.7%), undergraduate and higher education (51.6%) and married (58.9%).

- Those who have answered correctly that filter should be installed in the chimneys of industrial plants as a measure of air pollution prevention; male (69.8%), age 30 and over (58.3%), high school graduates (57.2%) and married (62.7%) employees.

- Those who responded correctly to "discharging factory wastes to water resources bir as a cause of water pollution; male (69.5%), age 30 and over (58.5%), high school graduates (55.7%) and married (62.6%).

- Those who respond correctly to the ü recycling of waste as a non-causal factor of food pollution; male (68.9%), age 30 and over (57.3%), high school graduates (52.4%) and married (63.9%) employees.

- Those who give the correct answer "Storage of garbage on the soil surface" as a cause of soil pollution; male (68.3%), age 30 and over (56.8%), high school graduates (57.8%) and married (62.0%) employees.

In terms of demographic characteristics it can be said that the cognitive levels of the employees are higher than the ones who are older than 30 years old, married and who have higher education level.

When the information sources of the employees regarding the environment are evaluated it is seen that the ratio of those who obtain environmental information from the school is lower than those obtained from visual and written media. In this context, education and seminars which will be conducted academically, especially on the basis of educational institutions in primary and secondary education, will be beneficial in creating environmental awareness and improving cognition level.

When the member status of the employees to any environmental organization is examined it can be seen that 98.1% do not have any membership, and those who are still members and those who have previously been members are more members of TEMA and very few employees are members of CEVA, Green Peace. Therefore, the associations and organizations operating in the environment and protection; their efforts to increase their

recognition and recruitment will contribute to the improvement of environmental cognition and awareness in society.

One of the main reasons for not giving importance to environment and its protection is the lack of environmental awareness due to the lack of sufficient knowledge of the society. Therefore, individuals and public institutions have responsibilities in order to increase knowledge and awareness on the subject. It is thought that evaluating the findings obtained from the study, which examines the level of knowledge of employees about the environment, for individuals and institutions and organizations from all segments of the society will contribute to the formation of positive changes and improvements towards environmental sensitivity in the society.

# REFERENCES

Akman, P. Y., & Vd. (2012). Çevre Kirliliği (Çevre Biyolojisi). Ankara: Palme Yayıncılık.

Atasoy, E. (2015). İnsan-Doğa Etkileşimi ve Çevre Eğitimi. İstanbul: Sentez.

Aydın, F., & Çepni, O. (2012). İlköğretim İkinci Kademe Öğrencilerinin Çevreye Yönelik Tutumlarının Bazı Değişkenler Açısından İncelenmesi (Karabük İli Örneği). Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi(18), 189-207.

Aydın, F., & Kaya, H. (2011). Sosyal Bilimler Lisesi Öğrencilerinin Çevre Duyarlılıklarının Değerlendirilmesi. Marmara Coğrafya Dergisi (24), 229-257.

Baykal, H., & Baykal, T. (2008). Küreselleşen Dünya'da Çevre Sorunları. Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi , 5 (9).

Derman, İ. (2013). Farklı Branş Düzeylerindeki Okullarda 9 ve 12. Sınıf Öğrencilerinin Ekosisteme İlişkin Öğrenme Düzeyleri ve Sürdürülebilir Çevre Bilinci İle İlişkisi. Yüksek Lisans Tezi . Ankara: Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü.

Gülay, Y., & Önder, P. (2011). Sürdürülebilir Gelişim İçin Okul Öncesi Dönemde Çevre Eğitimi. Ankara: Nobel.

Gürpınar, E. (1993). Kent ve Çevre Sorunlarına Bir Bakış. İstanbul: Der Yayınları.

Helvacı, İ. (2015). Görsel Sanatlar Öğretmen Adaylarının Çevre Bilinci Düzeylerinin Belirlenmesi. Yüksek Lisans Tezi . Ankara: Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü.

Kabaş, D. (2004). Kadınların Çevre Sorunlarına İlişkin Bilgi Düzeyleri ve Çevre Eğitimi. Yayınlanmamış Yüksek Lisans Tezi . Ankara: Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü , Aile Ekonomisi ve Beslenme Anabilim Dalı.

Karataş, A. (2013). Çevre Bilincinin Geliştirilmesinde Çevre Eğitiminin Rolü ve Niğde Üniversitesi Eğitim Fakültesi Örneği. Doktora Tezi . Ankara: Sosyal Çevre Bilimleri Anabilim Dalı.

Kaya, İ., & Gündoğdu, Y. (2007). Coğrafya Öğretmenlerinin Çevre Bilincini Oluşturma ve Geliştirmedeki Rolü: Diyarbakır Örneği. Doğu Coğrafya Dergisi , 187-204.

Keleş, R., & Hamamcı, C. (2005). Çevre Ploitikası. Ankara: İmge Kitabevi.

Kınalı, Ö. (2014). Yetişinlerin Çevre Koruma Konusundaki Bilgi ve Tutum Düzeylerinin Saptanması: Foça Örneği. Yüksek Lisans Tezi . İzmir: Dokuz Eylül Üniversitesi, Eğitim Bilimleri Enstitüsü.

Kocataş, A. (2008). Ekoloji ve Çevre Biyolojisi. İzmir: Ege Üniversitesi.

Küçüktüvek, D. (2007). Kadınların Çevre Korumaya Yönelik Mevcut Bilgi ve Tutumlarının Saptanması (Afyonkarahisar İli Örneği) . Yüksek Lisans Tezi . Ankara: Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü.

M. Abd El-Salam, M., M. El-Naggar, H., & A. Hussein, R. (2009). Environmental Education and Its Effect on the Knowledge and Attitudes of Preparatory School Students. J Egypt Public Health Assoc(Vol. 84 No. 3 & 4).

Makki, M., Abd-El-Khalick, F., & Boujaoude, S. (2003). Lebanese Secondary School Students' Environmental Knowledge and Attitudes. Environmental Education Research(9 (1)), 21-33.

Meredith, J., Cantrell, D., Conner, M., Evener, B., Hunn, D., & Spector, P. (2000). Best Practices for Environmental Education: Guidelines for Success. Environmental Education Council of Ohio. Ohio, USA: A project of Ohio EE 2000.

Oğuz, D., Çakcı, I., & Kavas, S. (2011). Yüksek Öğretimde Öğrencilerin Çevre Bilinci. SDÜ Orman Fakültesi Dergisi (12), 34-39.

Tanrıverdi, B. (2009). Sürdürülebilir Çevre Eğitimi Açısından İlköğretim Programlarının Değerlendirilmesi. Eğitim ve Bilim , 34 (151), 89-103.

Yıldız, K., Sipahioğlu, Ş., & Yılmaz, M. (2000). Çevre Bilimi. Ankara: Gündüz Eğitim ve Yayıncılık.

Yılmaz, V., Çelik, H., & Yağızer, C. (2009). Çevresel Duyarlılık ve Çevresel Davranışın Ekolojik Ürün Satın Alma Davranışına Etkilerinin Yapısal Eşitlik Modeliyle Araştırılması. Anadolu Üniversitesi Sosyal Bilimler Dergisi , 9 (2), 1-14.

# EVALUATION OF INTRA-URBAN RESIDENTIAL MOBILITY IN ÇANKIRI[1]

CHAPTER

19

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## INTRODUCTION

The history of mankind who changed the space lived in is also the history of a short or long period of mobility in that space. In this meaning, human history is the history of individual and / or collectively displacement. In history, human has been changed location for various reasons. Among these reasons, the struggle to hold on to the geography and socioeconomic structure of the people comes first (Tekeli, 1998; Unat, 2002; Güner, 2017).

In the literature about displacement, migration and spatial mobility, these terms are used in the same meaning in some studies. However, in some studies, it is seen that these terms are used in a different meaning. Although the displacement mobility falls within the scope of migration, it is seen that there are fundamental differences. Many researchers state that the difference between migration and displacement mobility is based on the distance of movement and the qualification of the settlements. The concept of migration is usually a long-distance action where economic activity can also change. Migration refers to regional or inter-country resettlement. Displacement and / or spatial mobility is a short-distance action without changing the natural and socioeconomic environment and is considered as a process whose dimensions do not exceed the local level. Therefore, migration, which is often associated with changes in employment, is taken as displacement between distant settlements. Intra-urban residential mobility, which is the basis of our study, is considered as short-distance mobility that occurs for a variety of reasons (Petersen,1958; Clark, 1982; Painter, 1997; Heeman et al., 1998; Unat, 2002; Faist, 2003; Yalçın, 2004; Özcan, 2006; Sağlam, 2006; Özgür & Yasak, 2009; Öner, 2016).

Since the second half of the 20th century residential mobility seen in the spatial structure of industrialized society in Turkey has accelerated. As Tekeli pointed out, in the 1950s, rural population began to decline in a period that was almost as short as a human life (Tekeli, 2008,49). Industrial investments of varying sizes of cities and their vicinity, as well as the increase in mechanization in rural areas, have resulted in a decrease in the population of rural areas. As a natural consequence of this process of developing countries, there have been a significant rate of migration from rural to urban areas. This migration from rural to urban areas, which continued until almost 2000s, started to slow down since these years. Therefore, a process in which migration from rural to urban areas has reached the level of completion has begun. This shows that a new spatial flow is strengthened in the mobilization of the population. This mobility is no longer from rural to urban, but rather between cities and within the city.

It is seen that the studies related to intra-urban residential mobility first appeared as a research subject in the late 19th century (Song, et al.,2015; Jia & Lei, 2019). The intra-urban residential mobility and the related residence satisfaction has been in the interest in disciplines such as geography, city planning, sociology and public administration in Turkey and abroad. In these disciplines, many aspects of intra-urban residential mobility and satisfaction have been evaluated. Considered topics include many subjects such as reasons for relocation, housing search process, households' evaluation of housing, dynamics of housing markets, mobility patterns, residence time and residence preferences (Torrens, 2007; Özgür, 2009; Baker, 2003; Kalelioğlu & Özgür,2013; Clark & Huang, 2003; Speare, 1974; Rossi, 1980: Wu & Li, Alkay, 2011; 2004; Kocatürk & Bölen, 2005; Galster & Hesser, 1981; Özgür & Yasak, 2009; Yirmibeşoğlu, 1997). Housing mobility is both the cause and the result of changes in the composition and quality of urban neighbourhoods. Understanding the determinants of housing mobility is not only an intellectual interest in social scientists, but also an urgent and practical importance for planners and local authorities (Quigley & Weinberg, 1977).

In the literature, many different definitions have been made about intra-urban residential mobility. Some of these definitions are the decision process related to the residence, a process to regulate the place, the reflection of the dissatisfaction with the household in the relationship of the house, the ability to change the micro-life cycle of the household on a macro scale, the relocation of residents from one house to another, neighbourhood and / or district change (Erginli, 2010; Gbakeji & Rilwani, 2009; Cadwallader, 1982; Kamacı, 2014; Clark & Onaka, 1983).

The change in the urban spatial structure is largely the total result of housing mobility and residential selection (Wu, 2004; Knox & Pinch, 2000; Kim, 1994). Urban areas in which the spatial interaction between human and environment takes place in the more complex process is not a static element. Therefore, it is not easy to understand, analyse and evaluate the socio-spatial processes of urban settlements. Residential mobility is one of the most important social-spatial dynamics in cities where socioeconomic changes are reproduced almost daily (Erginli, 2010). Although the progress of urbanization differs dramatically from one city to another or within cities, between socioeconomic groups and places, it is increasingly leading to housing mobility (Hernán et al., 2014).

It can be said that there are basically two factors determining the intra-urban residential mobility. One of them is pull and the other is push factors. However, it is stated that the push factors are more determinant in intra-urban residential mobility than pull factors (Animashaun, 2011). The

intra-urban residential mobility caused by various factors is the process of moving individuals to better housing or neighbourhood (Mandic, 2001). The intra-urban residential mobility, which is mostly caused by dissatisfaction, aims at maximal satisfaction. In this respect, intra-urban residential mobility is a choice that can satisfy the needs and requests related to the conditions of residence. In this selection, the differences between the current place of residence and the housing and neighbourhood are compared (Galster, 1987; Kalelioğlu ve Özgür,2013; Galster & Hesser, 1981; McAuley & Nutty, 1982). There are many factors that influence this choice. In researches that consider economic conditions, it is assumed that households choose places by looking at all the costs of components such as income, housing prices, distance to various functional areas and workplaces (Clark & Dieleman, 1996). Generally, households with higher income levels have higher mobility. However, in households with low income levels, mobility is lower. However, studies performed in different regions show that some obligations affect the dynamics except the income level and cause a change of residence. As a matter of fact, this process may also be affected by the situation of the current residence, the physical structure of the residential environment, the social structure of the neighbourhood, neighbourly relations, cultural structure, perception, gender and marital status, service practices of local administrations and various individual factors (Conway, 1985; Gilbert & Varley, 1990; Sanga, 2015; Rath & Routray, 1997; Miraftab, 1997; Turner, 1968; Crull et al., 1991).

The topic studies about housing site selection, residential mobility and residential satisfaction in Turkey are limited in number. In addition, these studies are mostly based on large or medium-sized cities. In addition, the contribution of the geography discipline related to the subject area has not reached a meaningful level yet. In this context, our study is one of the first studies on small cities. The basis of the study is intra-urban residential mobility. The main purpose of this study is to determine the residential satisfaction of the households in the Çankırı and to determine the potential change and direction of residence.

Çankırı, which constitutes the spatial scope of the research, is one of our smaller cities located on the highway route connecting Ankara to Kastamonu in the north of Central Anatolia. In the 1950s the accelerating industrialization and mechanization of agriculture in Turkey has accelerated the migration from rural to urban. The reflection of this situation has also been observed in Çankırı and significant increases have been observed in the population of the city. Although the urbanization rate does not give rise to the growth rate of the urban population alone, it is possible that the population growth rate as a criterion gives meaningful results. Indeed, the growth rate of urban population of Çankırı in all periods shown in the ta-

ble is higher than Turkey's population growth rate (Table:1). Between the years 1980-2000, Çankırı, which taken migration from rural areas, entered a period in which the population growth rate slowed down as in the country after the 2000s. Because the university was opened in 2007, the number of students who came to the city increased and accordingly the service sector developed. In addition, the activation of some industrial investments such as tire factory had a positive impact on the population growth rate of the city. The lack of a study on the extent to which this affects the intra-urban residential mobility in Çankırı has been an important source of motivation for this study. The main subject of the study consists of the degree of satisfaction with the housing and the residential neighbourhood and whether there is a request for a change of residence. In addition, the possible direction of the change of residence was also considered. Because the reasons for residence satisfaction, the request for change and the direction are the subject of another investigation, this study is limited to the situations given in the above paragraph.

Table 1: *Urban population growth rate of Çankırı and population growth rate of Turkey*

| Year | Population growth rate of Turkey | Urban population growth rate of Çankırı |
|------|----------------------------------|------------------------------------------|
| 1950 | 1,63 | 3,2 |
| 1960 | 2,85 | 3,51 |
| 1970 | 2,52 | 2,64 |
| 1980 | 2,31 | 2,9 |
| 1990 | 2,36 | 2,64 |
| 2000 | 1,83 | 3,17 |
| 2010 | 0,83 | 1,07 |
| 2018 | 1,33 | 2,39 |

**Source: Computed from Tüik Data's**

## 2. Method and Data

The study was designed as a quantitative research in order to determine the residence satisfaction, request to move and possible direction of moving of individuals living in Çankırı which is a small city. Although it does not constitute its main goal, interviews have been also conducted regarding the reasons for residence satisfaction, request to move and direction. However, since this is not the main objective of the study, these results will not be considered as quantitative data. For this purpose, a survey was applied

to samples over 18 years of age. The results of the survey were analysed with SPSS 22 program on the computer.

In order to determine the number of people who will answer the questionnaire prepared according to the aim of the study, Simple Random Sampling Method was used. In order to determine the sample size, the sample size was determined by the formula that can be used in cases where the universe size is known. So the sample size was 382 persons with +/- 5% error. It was assumed that a sample of this size would represent the universe sufficiently (within the 95% confidence range). However, in order to increase the quality of the study, 18 more questionnaires were applied in case of insufficient surveys. Therefore, a total of 400 surveys applied to participants during the study. 18 surveys that were thought to be incomplete and incorrect before data entry were not included in the analysis process. Thus, as previously determined, data on a total of 382 participants were analysed.

## 3. Findings and Discussion

As a result of the analysis, descriptive statistics of each independent variable regarding the socioeconomic and demographic characteristics of the participants over 18 years of age were achieved. Accordingly, approximately 44% of the participants are female and 56% are male. When the age distribution of the participants is examined, it is seen that approximately 61.8% are in the 31-50 age group. Therefore, it is seen that the young adult population is predominant in the study (Table 2).

**Table 2:** *Descriptive statistics results of the participants in the sample*

| Socioeconomic and Demographic Variables | Explanation of the groups that constitute the variables | Number | Percent (%) |
|---|---|---|---|
| **Gender** | Female | 168 | 44 |
| | Male | 214 | 56 |
| **Age** | 18-30 age | 66 | 17,3 |
| | 31-40 age | 138 | 36,1 |
| | 41-50 age | 98 | 25,7 |
| | 51-60 age | 58 | 15,2 |
| | 61 age + | 22 | 5,7 |
| **Marital status** | Married | 299 | 78,3 |
| | Single | 83 | 21,7 |
| **Educational level** | Illiterate | 8 | 2,1 |
| | Primary School | 184 | 48,2 |
| | High School | 127 | 33,2 |
| | Undergraduate and over | 63 | 16,5 |
| **Monthly income** | 500 TL - | 14 | 3,7 |
| | 501-1000 TL | 138 | 36,1 |
| | 1001-2500 TL | 149 | 39 |
| | 2501-5000 | 69 | 18,1 |
| | 5001 TL + | 12 | 3,1 |
| **Housing type** | Detached house | 115 | 30,1 |
| | Apartment | 267 | 69,9 |
| **Housing tenure** | Owner | 278 | 72,8 |
| | Renter | 104 | 27,2 |
| **Residence time** | 0-4 year | 146 | 38,2 |
| | 4-9 year | 109 | 28,5 |
| | 10-14 year | 62 | 16,2 |
| | 15-19 year | 40 | 10,5 |
| | 20 year + | 25 | 6,6 |
| **Sampling dispersion in neighbourhoods** | A.Halik Renda Mahallesi | 79 | 20,7 |
| | Aksu Mahallesi | 41 | 10,7 |
| | Alibey Mahallesi | 7 | 1,8 |
| | Buğday Pazarı Mahallesi | 111 | 29 |
| | Cumhuriyet Mahallesi | 12 | 3,2 |
| | Fatih Mahallesi | 32 | 8,3 |
| | İncili Çeşme Mahallesi | 6 | 1,5 |
| | Karataş Mahallesi | 12 | 3,1 |
| | Karatekin Mahallesi | 8 | 2,2 |
| | Kırkevler Mahallesi | 28 | 7,4 |
| | M. Sinan Mahallesi | 9 | 2,4 |
| | Tabakhane Mahallesi | 6 | 1,6 |
| | Yeni Mahalle | 31 | 8,1 |
| | Total sampling | 382 | 100 |

78.3% of the participants were married and 81.4% were primary or high school graduates. 39% of the participants' income are between 1001-2500 TL and there are also those who earn their living at minimum wage in this group. This group is followed by the income group of the 501-1000 TL with a 36.1% income, which is less than half of the minimum wage level. When those who have income of 500 TL or less are added, it is seen that approximately 80% of the sample have an income that below a minimum subsistence level. 72.8% of the participants are property owners and approximately 70% live in the apartment. Moreover, more than half of the participants have lived in their homes for less than 10 years (Table 2). 29% of the participants live in Buğdaypazarı, 20.7% in Abdülhalik Renda and 10.7% in Aksu. These three neighbourhoods, where 60.4% of the participants live, are also the most populated in the city.

Intra-urban residential mobility is the process of moving households between houses. The residences where the change occurs can be between the neighbourhoods in the city or in the same neighbourhood. Excluding the obligations, the main factor that starts mobility is the evaluation of the satisfaction of the household from the housing or the neighbourhood. If there is no satisfaction in this evaluation, and the conditions are suitable, the household moves by analysing all kinds of related to the housing and the neighbourhood where they wish to live. When the participants were asked about their satisfaction with the residence, it was detected 38.7% (148 people) were not satisfied. When asked request of the move from the residence, it was determined that 32.5% of the participants had a request to move (Table 3). The people who are dissatisfied with the housing and the individuals that willing to move are not the same number. And this shows that the obligations may affect the move even if they are not satisfied from housing. In other words, although some of the participants are dissatisfied, they do not want to move. Very few participants are satisfied with the residence, they live in, but they want to move for reasons such as change of work and school. Therefore, although these explanations indicate that the request to move is a result of dissatisfaction, they show that even though satisfied, sometimes necessities are also determined. Although dissatisfied with the residence, the absence of request to move is related to a variety of reasons such as economic problems, family and personal reasons.

**Table 3:** *Participants' satisfaction with the residence in the Çankırı and the request to move*

| Satisfaction with the residence | Number | Percent (%) | Request to move from the residence | Number | Percent (%) |
|---|---|---|---|---|---|
| Satisfied | 234 | 61,3 | Yes | 124 | 32,5 |
| Dissatisfied | 148 | 38,7 | No | 258 | 67,5 |
| **Total** | **382** | **100** | **Total** | **382** | **100** |

Urban development process and housing production continue in Çankırı. The high level of request to move in Çankırı which is a small-scale city produces significant results in terms of future urbanization and housing policies. As a matter of fact, the presence of a continuously developing university in Çankırı increases the number of students and academic and administrative staff. This situation creates a dynamism in job opportunities in the city, especially in the service sector. In addition, some industrial investments, such as the recently get started tire factory, have a positive impact on the population growth rate of the city, and as a result of this, housing demand is growing.

It is seen that 72 (48.6%) of the 148 people who is dissatisfied with the housing in the study area is female and 76 (51.4%) is male. This shows that dissatisfaction is balanced among the gender, although 56% of the participants are male. However, it is seen that women are more dissatisfied with the rate of 43% in the gender group than men (Table 4). In the traditional family structure, since the workload of women in the family is higher than men, it can be thought that women make the assessment about the housing in more detail. In this context, dissatisfaction will be greater in women. Of the 124 people who wanted to move, 51 is female (41.1%) and 73 is male (58.9%). This situation shows that the main decision-making gender in the traditional family structure is male (Table 4).

**Table 4:** *Satisfaction status of the housing and move requests according to the variables in Çankırı*

| | Dissatisfaction with the residence | | | Request to move from the residence | | |
|---|---|---|---|---|---|---|
| **Gender** | **Number** | **In dissatisfied %** | **In gender group %** | **Number** | **In request to move %** | **In gender group %** |
| Female | 72 | 48,6 | 42,9 | 51 | 41,1 | 30,4 |
| Male | 76 | 51,4 | 35,5 | 73 | 58,9 | 34,1 |
| **Total** | **148** | **100** | | **124** | **100** | |
| **Age** | | **In dissatisfied %** | **In age group %** | | **In request to move %** | **In age group %** |
| 18-30 | 36 | 24,3 | 54,5 | 22 | 17,7 | 33,3 |
| 31-40 | 61 | 41,2 | 44,2 | 55 | 44,4 | 39,9 |
| 41-50 | 28 | 18,9 | 28,6 | 30 | 24,2 | 30,6 |
| 51-60 | 21 | 14,2 | 36,2 | 15 | 12,1 | 25,9 |
| 61 + | 2 | 1,4 | 9,1 | 2 | 1,6 | 9,1 |
| **Total** | **148** | **100** | | **124** | **100** | |
| **Marital status** | | **In dissatisfied %** | **In marital status %** | | **In request to move %** | **In marital status %** |
| Married | 94 | 63,5 | 31,4 | 92 | 74,2 | 30,8 |
| Single | 54 | 36,5 | 65,1 | 32 | 25,8 | 38,6 |
| **Total** | **148** | **100** | | **124** | **100** | |
| **Educational level** | | **In dissatisfied %** | **In educational level %** | | **In request to move %** | **In educational level %** |
| Illiterate | 4 | 2,7 | 50 | 2 | 1,6 | 25 |
| Primary School | 71 | 48 | 38,6 | 55 | 44,3 | 29,9 |
| High School | 48 | 32,4 | 37,8 | 42 | 33,9 | 33,1 |
| Undergraduate and over | 25 | 16,9 | 39,7 | 25 | 20,2 | 39,7 |
| **Total** | **148** | **100** | | **124** | **100** | |
| **Monthly income** | | **In dissatisfied %** | **In monthly income %** | | **In request to move %** | **In monthly income %** |
| 500 TL - | 4 | 2,7 | 28,6 | 2 | 1,6 | 14,3 |
| 501-1000 TL | 47 | 31,8 | 34,1 | 45 | 36,3 | 32,6 |
| 1001-2500 TL | 68 | 45,9 | 45,6 | 52 | 41,9 | 34,9 |
| 2501-5000 | 26 | 17,6 | 37,7 | 24 | 19,4 | 34,8 |
| 5001 TL + | 3 | 2 | 16,7 | 1 | 0,8 | 8,3 |
| **Total** | **148** | **100** | | **124** | **100** | |

Expectations, needs, preferences, perceptions and value judgments of people change according to age. In this context, the satisfaction and the request to move from the housing also differs between the age groups as well as between the young and old groups. Marriage or divorce, changes in work-related processes or status in the field of work, having children, educational processes, services and socio-cultural activities of people are more related to age and this directly determines the request to move and satisfaction of housing. Therefore, as these changes will be seen more especially in the young and middle age periods, this age group will carry out the intra-urban residential mobility more. As a matter of fact, it is seen that the ratio of those who are not satisfied with the residence decreases with age (table 4). 65.5% of the 148 dissatisfied individuals are under 40 years of age. When we consider this group within their own age groups, more than half of the population aged 18-30 (54.5%) and nearly half of the group aged 31-40 (44.2%) are not satisfied with the residence they live in. The existing of students in the population between the ages of 18-30 leads to a narrow satisfaction scale. Therefore, dissatisfaction and mobilization in this group are higher. However, it is seen that as age progresses, the situation is reversed. Less uncertainty in the life cycle of individuals over the age of 40 reduces dissatisfaction and mobility. As a matter of fact, there are only 21 people between the ages of 51-60 and over the age of 60 who are not satisfied.

94 of 148 people who are dissatisfied with the residence, they live in and 92 of 124 people who want to move are married. This situation may make us think that married people are less satisfied and want to move more. However, when the relevant situation is evaluated within its own group, it is seen that 65% of the single group is not satisfied and 38.6% wants to move. These rates are higher than those of married people. Since the majority of the individuals in this group are young and students, they are less satisfied than married people and can do more intra-urban residential mobility. When the relationship between the level of education and satisfaction with housing is evaluated in the sample, it is seen that half of the 148 dissatisfied participants have primary education and lower education level. Among the dissatisfied, the ratio of individuals with undergraduate and higher education is 16.9%. This group also constitutes the group that wants to move less in the group that want to move. However, when we evaluate the education groups within itself, among the 63

people who have undergraduate, the ratio of dissatisfied and want to move is a very high rate as 40%. This case points out that the higher level of education, the greater the request to move, depending on the qualities of the housing and its environment. Although primary and high school graduates have a high degree of dissatisfaction within their own education groups, they are less request to move because of the inadequacy of financial means.

When the satisfaction of housing and income group are evaluated, it is seen that individuals with a very low income group and high income group are more satisfied (Table 4). The rate of this group among the dissatisfied is only 4.7%. When evaluate in own income group, dissatisfaction with this group is lower than other income groups. This case is related to the fact that lower income group uses less variables on the satisfaction scale, while the high income group is already living in the housing that most of them request. Parallel to the satisfaction, the request to move is quite low in the low and high income groups. Of the 124 people who want to move, only three are in this income group. Dissatisfaction and request to move are more prominent in the middle, lower-middle and upper-middle income groups. The relationship between income group and satisfaction and request to move is more meaningful for low-middle, middle and upper-middle income group. The dissatisfaction of these income groups and their high request to move shows that they cannot reach the requested housing environment.

The satisfaction of the people living in Çankırı and the request to move are depends on also the property status, type of residence and residence time. In Çankırı, where 72.8% of the participants are property owners, more than half of those who are not satisfied with the residence are non-owners. In addition, only 24.1% of the property owners and 77.9% of the non-owners are not satisfied with their residence. This shows that satisfaction increases as property increases. This situation is reflected in the request to move and 60.5% of those who want to move are non-owners. Among those who do not own property, those who want to move have a ratio of approximately 72.1%. This shows that individuals who do not own property have more request to move (Table 5).

**Table 5:** *Satisfaction status of the housing and move requests according to the variables related to housing in Çankırı*

| Housing tenure | Dissatisfaction with the residence | | | Request to move from the residence | | |
|---|---|---|---|---|---|---|
| | Number | In dissatisfied % | In housing tenure % | Number | In request to move % | In housing tenure % |
| Owner | 67 | 45,3 | 24,1 | 49 | 39,5 | 17,6 |
| Renter | 81 | 54,7 | 77,9 | 75 | 60,5 | 72,1 |
| **Total** | **148** | **100** | | **124** | **100** | |
| **Housing type** | Number | In dissatisfied % | In housing type | Number | In request to move % | In housing type |
| Detached house | 40 | 27 | 34,8 | 23 | 18,6 | 20 |
| Apartment | 108 | 73 | 40,4 | 101 | 81,4 | 37,8 |
| **Total** | **148** | **100** | | **124** | **100** | |
| **Residence time** | Number | In dissatisfied % | In residence time | Number | In request to move % | In residence time |
| 0-4 year | 39 | 26,4 | 26,7 | 36 | 29 | 24,7 |
| 4-9 year | 57 | 38,5 | 52,3 | 49 | 39,5 | 45 |
| 10-14 year | 28 | 18,9 | 45,2 | 23 | 18,6 | 37,1 |
| 15-19 year | 16 | 10,8 | 40 | 13 | 10,5 | 32,5 |
| 20 year+ | 8 | 5,4 | 32 | 3 | 2,4 | 12 |
| **Total** | **148** | **100** | | **124** | **100** | |

Among the participants, 73% of the individuals who are not satisfied with the residence, they dwell, live in the apartment. Living in a detached house with a garden is a very important satisfaction factor, especially for the persons that married and have children. 34.8% of the residents that live in detached house are not satisfied. Most of them live in slums that have low housing quality. 81.4% of the individuals who want to move live in the apartment. Especially the low quality of the apartment and the higher age range of the residents, increase the request to move in this group.

Satisfaction increases as the residence time increases in the housing. As a matter of fact, this situation is clearly observed in table 5. Approximately 65% of people who do not have residential satisfaction live in their residence for less than ten years. It can be said that after 15 years of residence period, loyalty to the housing and the neighbourhood increased. As a matter of fact, only 12.9% of the people whose residence period has exceeded 15 years want to move. The highest request to move is found in people who have a residence time between 4-14 years. This situation shows that the time period for the short-term residents has not yet passed. It also shows that the life cycle has reached a certain level in long-term residents.

The level of satisfaction of individuals with the residence, they live in may not be the same as the neighbourhood where the house is located. In this context, the level of satisfaction of the participants of the neighbourhood they live in, the number of people who want to move and the neighbourhood they want to move to have been determined. The first place where the city of Çankırı was founded is the castle and its vicinity and the city has grown in the lower parts of the castle. In this context, the oldest neighbourhoods of Karataş, Karatekin and Mimar Sinan are located on the slopes rising towards Çankırı Castle. Nine of the neighbourhoods in Çankırı have been in existence since the Ottoman period and five were established in the Republican period. Alibey, Buğdaypazarı, İnciliçeşme, Karataş, Karatekin, Tabakhane, Mimar Sinan and Cumhuriyet neighbourhoods have been in existence since the Ottoman period, while Abdülhalik Renda, Yenimahalle, Aksu, Fatih and Kırkevler districts were established during the Republican period (Gökmen, 2011). The fact that most of the neighbourhood that existed since the Ottoman period is within the scope of the protected area limits the construction in these neighbourhoods. However, in some places such as the north of the Mimar Sinan neighborhood, there are also new housing units built by the Housing Development Administration. In addition, it is seen that the old buildings were demolished and constructed new and modern buildings in some parts of the neighbourhoods established during the Republican period, especially on the Kastamonu road front. In line with the population growth and housing demand of the city, it is observed that the housing stock in the valley bottom of Acı çay and Tatlı çay increased. As indicated before, 60.4% of the participants live in Buğdaypazarı, Abdülhalik Renda and Aksu

neighbourhoods, which contain almost half of the city's population. Therefore, it is usual that the rate of those who are dissatisfied with these neighbourhoods is high. However, the rate of dissatisfaction among those residing in these neighbourhoods does not exceed 33% (Table 6).

**Table 6:** *Satisfaction levels of the participants from their neighbourhood, their request to move, and the distribution of the neighbourhoods where they request to move*

| Neigh-bour-hoods | Number of dissat-isfied | In dis-sat-is-fied % | Rate in the same neigh-bour-hood % | Number of re-quest to move | In re-quest to move % | Rate in the same neigh-bour-hood % | The neigh-bour-hood that re-quested to move | % |
|---|---|---|---|---|---|---|---|---|
| A.Halik Renda | 26 | 17,6 | 32,9 | 24 | 19,4 | 30,4 | 25 | 20,2 |
| Aksu | 12 | 8,1 | 29,3 | 13 | 10,5 | 31,7 | 20 | 15,8 |
| Alibey | 3 | 2 | 42,9 | 0 | 0 | 0 | 0 | 0 |
| Buğday Pazarı | 32 | 21,6 | 28,8 | 34 | 27,4 | 30,6 | 34 | 27,3 |
| Cumhuri-yet | 2 | 1,3 | 16,7 | 5 | 4,1 | 41,7 | 29 | 23,7 |
| Fatih | 25 | 16,9 | 78,1 | 17 | 13,7 | 53,1 | 0 | 0 |
| İncili Çeşme | 1 | 0,7 | 16,7 | 0 | 0 | 0 | 0 | 0 |
| Karataş | 6 | 4,1 | 50 | 4 | 3,2 | 33,3 | 2 | 1,6 |
| Karatekin | 6 | 4,1 | 75 | 3 | 2,4 | 37,5 | 0 | 0 |
| Kırkevler | 16 | 10,8 | 57,1 | 12 | 9,7 | 42,9 | 5 | 4,2 |
| M.Sinan | 7 | 4,7 | 77,8 | 3 | 2,4 | 33,3 | 0 | 0 |
| Ta-bakhane | 1 | 0,7 | 16,7 | 0 | 0 | 0 | 0 | 0 |
| YeniMa-halle | 11 | 7,4 | 35,5 | 9 | 7,2 | 29 | 9 | 7,2 |
| **Total** | **148** | **100** | | **124** | **100** | | **124** | **100** |

It is seen that the satisfaction levels of the residents of Fatih, Mimar Sinan, Kırkevler, Karatekin, Karataş and Alibey neighbourhoods are quite low. Almost half and more of those living in these neighbourhoods are not satisfied from their residence. Alibey, Mimar Sinan, Karatekin and Karataş neighbourhoods are old neigh-

bourhoods and the houses are generally poor in quality. The fact that a significant part of the Fatih neighbourhood is approximately 8-9 km from the city centre and that the socioeconomic structure of the neighbourhood is perceived as low are the factors that reduce satisfaction. The quality of housing is low in the Kırkevler neighbourhood, especially in the areas except the new residential areas on both sides of Kastamonu avenue. In addition, the distance from this part to the city centre in general has a negative effect on satisfaction.

In the study, it is seen that there are no people who want to move from Alibey, İnciliçeşme and Tabakhane neighbourhood. The lack of willingness to move even though there is dissatisfaction with these neighbourhoods are related to some obligations such as lack of income. The neighbourhoods with the highest rate of participants wishing to move; A.Halik Renda, Aksu, Wheat Market, Fatih and Kırkevler neighbourhoods. The ratio of those who want to move in their own group is around 10% and above. However, when the ratio of the participants who want to move within the neighbourhood they live in, significant differences are observed. As a matter of fact, the ratio of the people in Fatih neighbourhood, which is 13.7% in the total relocation request, increases to 53.1% compared to the participants living in the same neighbourhood. The total relocation request increases to 42.9% of persons in Kırkevler neighbourhood, which is 9.7% (Table 6). The fact that these neighbourhoods are relatively far from the city centre and the low rate of qualified housing increases the request to move. It is possible to observe the same situation in Karatekin neighbourhood. Some of the people who want to move in the Buğday Pazarı, A.Halik Renda and Aksu neighbourhoods stated the distance to the city centre as a reason for moving. Some stated that high rental costs were effective in moving. Especially rent expenses are higher in Cumhuriyet neighbourhood, which is in the city centre. This situation increases the request to move from this neighbourhood.

When 124 people who want to move are asked where they want to move, it is seen that there is no balanced choice within the city. Alibey, Fatih, İnciliçeşme, Karatekin, Tabakhane and Mimar Sinan neighbourhoods were not preferred by any of those who wanted to move (Table 6). Most of these neighbourhoods, except Fatih, constitute the oldest settlement of Çankırı. Therefore, low housing quality

is one of the reasons why they are not preferred. Including some of the residences in these neighbourhoods within the scope of the protected area is also a situation that prevents the request to move. Furthermore, it is also not desirable that the houses are built in adjacency order in these neighbourhoods. In addition, the fact that these neighbourhoods are seen at a lower socioeconomic level, in other words, the perception of the city as a slum area limits the request to move. Most of the residential areas of Fatih neighbourhood are approximately 8-9 km away from the city centre. The deterrent effect of this distance prevents the request to move. In addition, the fact that the part of Fatih neighbourhood close to the city centre is adjacent to the Çankırı city cemetery hinders the preference of moving.

When the participants are evaluated according to the neighbourhoods they want to move, the preferred rate of Kırkevler and Karataş neighbourhoods are below 5% (Map 1). Those who prefer Kırkevler neighbourhood are 4.2% and Karataş are 1.6%. Besides the fact that the sections of the Karataş neighbourhood towards the castle are protected areas, the lack of desirable properties of the houses reduces the request to move. In Karataş neighbourhood, the quality of housing in the streets parallel to Kastamonu avenue increases the request to move to this part of the neighbourhood. Other sections of the neighbourhood are not preferred. As in Karataş, especially in the Kırkevler neighbourhood, the presence of modern buildings on both sides of the Kastamonu avenue in recent years has created an attraction force. However, this attraction is evident in the part of Kastamonu avenue which is close to the city centre. The fact that most of the dwellings built here are separate from each other and that the dwellings are more modern and large are the reasons why some of the participants want to move to these places.

**Map 1:** *Distribution of the request to move according to neighbourhoods in Çankırı*
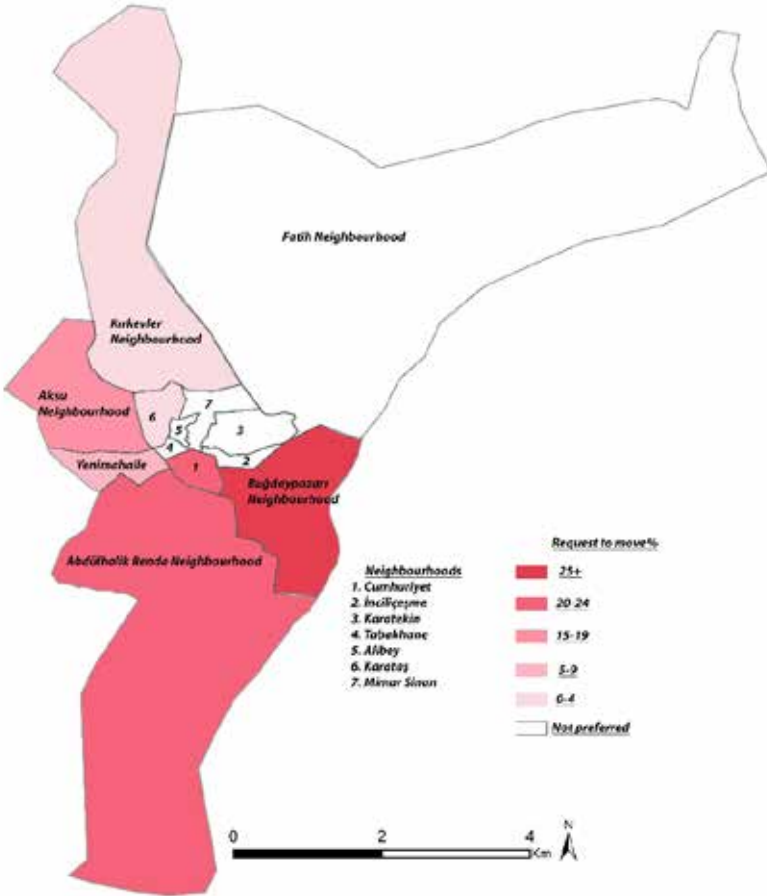


Yenimahalle, which is located to the west of Çankırı city, is preferred by 7.2% of 124 people who want to move. Yenimahalle is a neighbourhood close to the city centre and there are many apartments there. Because it is close to the city centre some prefer this place and some are already residing. Aksu neighbourhood constitutes the western part of the Kastamonu avenue in the northwest of the city. This neighbourhood is preferred by 15.8% of the participants who want to move. The fact that the houses are relatively distant from each other and the recreation areas are partially sufficient and the parcels are large in this part of the city increases the move preference.

Abdülhalik Renda, Cumhuriyet and Buğdaypazarı are the first three neighbourhoods which are most requested to move in Çankırı. Of the 124 people who request to move, 27.3% prefer the Buğday Pazarı, 23.7% the

Cumhuriyet and 20.2% Abdülhalik Renda neighbourhood. These three neighbourhoods are preferred by 71.2 of those who request to move. Particularly the parts of these neighbourhoods, which constitute the city centre, are the places where the majority of shopping centres, banks, hospitals and other public buildings located. Therefore, these areas constitute the attraction area of the city. In addition, the flatness of the ground in these neighbourhoods and the increase in the number of new and modern buildings that have been built more in recent years have a positive effect on the request to move. These neighbourhoods are mostly preferred by both the other neighbourhoods and the inhabitants. The high number of socio-cultural spaces in these neighbourhoods increases the request of many people to move.

## 4. CONCLUSION

The population growth that started in the urban population since the 1950s increased significantly in the late 20th century. During this period, migration from rural areas to cities has recently started to take place between and within cities. In our country, it is seen that the researches related to the mobility of urban housings have been done more about large and medium-sized cities. This study that evaluating the intra-urban residential mobility in Çankırı is one of the first studies on small-scale cities. There are many determinants of intra-urban residential mobility. For whatever reason, mobility is basically determined by the level of satisfaction with dwelling and the neighbourhood in which he lives. If the person or household is not satisfied with the dwelling or neighbourhood they live in and if this situation becomes unsustainable, they decide to change their residence. In this context, the basis of our study is to determine the level of satisfaction of persons in Çankırı from their housing and their neighbourhood. Therefore, in accordance with the purpose of the study, the requests for housing and moving from the residential neighbourhood were determined and the direction of the possible change in the neighbourhood scale was also determined.

In accordance with the objectives of the study, in July 2018, a survey was applied using simple random sampling method with +/- 5% error margin and 95% confidence range in Çankırı city. Therefore, a survey was conducted with 382 people over the age of 18 and the results of the survey were evaluated. When the socioeconomic and demographic factors affecting intra-urban residential mobility are evaluated, it has seen that various variables such as age, education, gender, marital status, income, property, type of residence and duration of residence are important. When the level of satisfaction with the residence was asked to the participants, it was found that 38.7% (148 people) were not satisfied. When asked to persons,

whether request to move from the residence or not, it is determined that 32.5% of the participants request to move. The high level of request to move in Çankırı which is a small-scale city produces significant results for the public and private sector, in terms of future urbanization and housing policies.

Satisfaction levels of the residents of Fatih, Mimar Sinan, Kırkevler, Karatekin, Karataş and Alibey neighbourhoods were found to be very low. Almost half and more of those living in these neighbourhoods are not satisfied with the housing and the neighbourhood where they live. There is low quality residential in these neighbourhoods. Thus, these neighbourhoods are also places where participants do not request to move much. However, the satisfaction level is generally high in Cumhuriyet, A.Halik Renda, Aksu and Buğdaypazarı neighbourhoods. These neighbourhoods are the most preferred areas to move. Shopping centres, banks, hospitals and many other public buildings were effective in choosing these neighbourhoods.

# REFERENCES

Alkay, E., (2011) "The Residential Mobility Pattern in the İstanbul Metropolitan Area", *Housing Studies,* Vol: 26, No:4, pp: 521-539.

Animashaun I. A (2011) "The Push Factors of Intra-Urban Residential Mobility in Calabar, Nigeria", *International Journal of Development and Management Review (INJODEMAR),* Vol:6, pp:190-201.

Baker, E., (2003) *Public Housing Tenant Relocation: Residential Mobility, Satisfaction, and the Development of a Tenant's Spatial Decision Support System* (Unpublished Ph.D. Thesis), The Adelaide University, Adelaide.

Cadwallader, M., (1982) "Urban Residential Mobility: A Simultaneous Equations Approach", *Transactions of the Institute of British Geographers, New Series,* Vol:7, No: 4, pp:458-473.

Clark, W.A.V. (1982) "Recent research on migration and mobility: A review and interpretation", *Progress in Planning*, 18, 1-56.

Clark, W.A.V. & Dieleman, F.M. (1996) *Households and housing: Choice and outcomes: In the Housing Market*, Center for Urban Policy Research.

Clark, W. & Huang, Y. (2003) ``The life course and residential mobility in British housing markets'', *Environment and Planning A: Economy and Space*, vol:35 No:2, pp:323 - 339

Clark, W. A. & Onaka, J. L. (1983). "Life cycle and Housing Adjustment as Explanations of Residential Mobility". *Urban Studies,* Vol: 20, No:1, pp: 47-57.

Conway, D. (1985) "Changing Perspectives on Squatter Settlements, Intraurban Mobility, and Constraints on Housing Choice of the Third World Urban Poor", *Urban Geography*, Vol: 6, No:2, pp. 170–192.

Crull, S. R., Bode, M. E. & Morris, E. W. (1991) "Two tests of the housing adjustment model of residential mobility", *Housing and Society*, Vol:18, No:3, pp: 53-64.

Erginli, B., E. (2010) *Intra-Metropolitan Mobility Patterns In Istanbul,* (Unpublished Master's Thesis) İTÜ Fen Bilimleri Enstitüsü.

Faist, T. (2003) *Uluslararası Göç ve Ulusaşırı Toplumsal Alanlar*, Çev. A.Z. Gündoğan ve C. Nacar, Bağlam Yayınları, İstanbul.

Galster, G. (1987) "Identifying the correlates of dwelling satisfaction: An empirical critique". *Environment and Behavior*, Vol:19, No:5, pp:539-568.

Galster, G.C., Hesser, G. W. (1981) "Residential satisfaction: Compositional and contextual correlates", *Environment and Behavior,* vol: 13, No:6, pp:735-758

Gbakeji, J.O. & Rilwani, M. L., (2009) "Residents' Socio-economic Characteristics and the Residential Mobility Process in an Urban Space: The Example of the Warri Metropolis, Delta State, Nigeria", *Journal of Human Ecology*, Vol:27, No:1, pp.45-52.

Gilbert, A. & Varley, A. (1990) "Renting a Home in a Third World City: Choice or Constraint?", *International Journal of Urban and Regional Research,* Vol:14, No:1, pp. 89-108.

Gökmen, B. (2011) Çankırı *İli Coğrafyası*, Çankırı Belediyesi Kültür Yayınları, Çankırı.

Güner, B. (2017) "Türkiye'de Kent-Kent Göçü Üzerine Bazı Değerlendirmeler", *Akdeniz* İnsani *Bilimler Dergisi*, C: VII, S:1, ss,205-212.

Heeman, B.; Johnsen, S.; James, H. (1998) *Intra-urban Migration,* Caversham Working Paper (CWP), 1998-1

Hernán, G. V., Albert, S. & Juan, A. (2014) "Modelling the Spatial Nature of Household Residential Mobility within Municipalities in Colombia Módenes" *Applied Spatial Analysis and Policy,* Vol: 7, No:3, pp: 203-223.

Jia, X., Lei, J. (2019) "Residential Mobility of Locals and Migrants in Northwest Urban China," *Sustainability, MDPI, Open Access Journal*, vol. 11(13), pp: 1-23.

Kalelioğlu, M. R., Özgür, E. M., (2013) "İkametgâh Memnuniyeti Bağlamında Konut Yeri Seçimi ve İkametgâh Hareketliliği: Bolu Kenti Örneği" *Coğrafi Bilimler Dergisi*, C:11, S:2, ss:149-168.

Kamacı, E., (2014) "Kent-içi Hareketlilik ve Sosyo-Mekânsal Değişim: 2000 Yılı İstanbul'una Bakış" *Artium*, C:2, S:1, ss:1-15.

Kim, J.H. (1994) "Residential Mobility Intention by Tenure Type in Korea", *Journal of Social Science*, Vol: 4, No: 2, pp. 1–22.

Knox, P & Pinch, S. (2000) *Urban Social Geography: An Introduction.* Englewood Cliffs, NJ: Prentice-Hall.

Kocatürk, F., Bölen, F. (2005) "Kayseri'de konut alanı yer seçimi ve hanehalkı hareketliliği". İTÜ *Dergisi*, C:4, S:2, ss: 17- 24.

Mandić, S. (2001) "Residential Mobility versus 'In-place' Adjustments in Slovenia: Viewpoint from a Society 'in Transition", *Housing Studies,* Vol: 16, No: 1, pp: 53–73.

McAuley, W.J. & Nutty, C.L. (1982). "Residential preferences and moving behavior: A family life cycle analysis". *Journal of Marrage and the Family*, Vol:44, No:2, pp: 301-309.

Miraftab, F. (1997) "Revisiting Informal-sector Home Ownership: The Relevance of Household Composition for Housing Options of the Poor*", International Journal of Urban and Regional Research*, Vol:21, No: 2, pp: 303-322.

Nathan, V. (1995) "Residents' satisfaction with the sites and services approach in affordable housing", *Housing and Society*, vol:22, No:3, pp:53-78.

Öner, N., A., Ş. (2016) "Göç Çalışmalarında Temel Kavramlar", S. Gülfer Ihlamur-Öner, N. Aslı Şirin Öner (Der.), *Küreselleşme* Çağında *Göç, Kavramlar Tartışmalar* içinde (ss 13-27). İletişim Yayınları, İstanbul.

Özcan, F. (2006) "Konut alanı yer seçimi ve hanehalkı hareketliliğine yönelik kuramsal bir inceleme", *Erciyes* Üniversitesi *Sosyal Bilimler Enstitüsü Dergisi,* C:1, S:21, ss:73-95.

Özgür, M. E., (2009) "İkametgâh Memnuniyeti ve Şehir İçi İkametgâh Hareketliliği", *Coğrafi Bilimler Dergisi*, C: 7, S:2, ss.111-127.

Özgür, E. M., Yasak, Ü., (2009) "Şehir İçi İkametgah Hareketliliğine Kuramsal Bir Bakış" *Coğrafi Bilimler Dergisi*, C: 7, S:1, ss:39-50.

Painter, G. (1997) "Does Variation in Public Housing Waiting Lists Induce Intra-Urban Mobility?", *Journal of Housing Economics*, Vol:6, No: 3, pp:248–276.

Petersen, W. (1958) "A General Typology of Migration", *American Sociological Association*, Vol: 23, pp:256-266.

Quigley, J, M., Weinberg, D, H. (1977) "Intra- Urban Residential Mobility: A Review and Synthesis" *International Regional Science Review,* Vol:2, No:1, pp:41-42.

Rath, K. C. & Routray, J. K. (1997) "Plot Acquisition for Self-build Housing Problems in Bhubaneswar City,India". *Land Use Policy*, Vol: 14, No:2, pp: 81-97.

Rossi, P.H., (1980): *Why Families Move*, 2nd ed. Beverly Hills: Sage Publications, California.

Sağlam, S. (2006), "Türkiye 'de İç Göç Olgusu ve Kentleşme" *Hacettepe* Üniversitesi *Türkiyat Araştırmaları (HÜTAD),* S:5, ss:33-44.

Sanga, S., A. (2015) "Intra-urban residential mobility and tenants' workplace choices in Kinondoni municipality", *Habitat International*, Vol:49, pp:45-55

Song, W.; Chen, P.; Hu, Y. (2015) "A review of research on residential mobility from the perspective of urban geography". *Urban Plan. Forum 2015*, 5, 45–49.

Speare, A.Jr., (1974) "Residential Satisfaction as an Intervening Variable in Residential Mobility", *Demography,* Vol:11, No: 2, pp:173-188.

Tekeli, İ. (1998) "Türkiye'de içgöç sorunsalı yeniden tanımlanma aşamasına geldi.", A. İçduygu (Ed.), *Türkiye'de içgöç konferans Bolu-Gerede*, 6-8 Haziran 1997 içinde (s.7-21). Tarih Vakfı Yurt Yayınları, İstanbul.

Torrens, P, M. (2007) "A geographic automata model of residential mobility", *Environment and Planning B: Planning and Design* 2007, vol: 34, pp: 200 – 222.

Turner, J.F.C. (1968) "Housing Patterns, Settlement Patterns, and Urban Development in Modernizing Countries", *Journal of the American Planning Association*, Vol:34, No:6, pp. 354–363.

Unat, A, N. (2002) *Bitmeyen Göç / Konuk* İşçilikten *Ulus*-Ötesi *Yurttaşlığa*, İstanbul Bilgi Üniversitesi Yayınları 30, İstanbul.

Wu, F., Li, S. (2004) "Theme issue: residential mobility and housing choice in China" *Environment and Planning A: Economy and Space*, vol: 36, No: 1, pp:1-6

Wu, F. (2004) "Intraurban Residential Relocation in Shanghai: Modes and Stratification", *Environment and Planning A: Economy and Space*, vol: 36, No: 1, pp. 7–25.

Yalçın, C. (2004), *Göç Sosyolojisi*, Anı Yayıncılık, Ankara.

Yirmibeşoğlu, F., (1997) İstanbul'da İskân *Alanlarının Yer Seçiminde Hane Halkı Nitelikleri ve Konut Talebi*, (Unpublished Ph.D. Thesis) İTÜ Fen Bilimleri Enstitüsü.

# A HYBRID MODEL FOR EVALUATING AND SELECTING E-LEARNING PRODUCTS

CHAPTER

20

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## INTRODUCTION

As the share of the service sector in the economy increased, service companies began to give more importance to factors that would increase customer satisfaction. Information and communication technologies, which have developed with great momentum in recent years in our country as well as in the world, have led to a process of change. One of the most important areas of global transformation is education. In our age, where knowledge is seen as one of the most important value, the role of education has become more prominent. In today's conditions, individualization and time management become the determining factor for individuals, new approaches have been adopted in education. Electronic learning (e-learning) has emerged as a product of this understanding with the introduction of new generation educational environments as well as traditional education methods in our lives. E-learning enables individuals to receive education independently of time and place by using various communication tools, especially the internet. Thanks to the e-learning system, people with limited access to education or people with barriers to access the educational institutions are given the opportunity to receive the education they want.

With the increasing demand for e-learning systems, institutions using e-learning systems have become competitive with each other. In e-learning systems, first of all, student satisfaction should be taken into consideration. Although the demand for e-learning systems has increased, it is noteworthy that only a limited number of studies have been conducted especially in our country. In the studies, it is seen that the criteria that affect the e-learning system are determined and evaluated. Evaluation criteria are mostly determined with of statistical methods such as Factor Analysis and Cluster Analysis.

From this point, after determining the criteria that affect e-learning system, 10 private universities in Turkey are evaluated with the integrated approach.

Following the introduction section, literature review is given and SWARA and WASPAS Methods are briefly summarized. In the last part of the study, the application is explained. In the conclusion part of the study, a general evaluation was made within the scope of the information obtained as a result of the application and suggestions were made for future studies.

## LITERATURE REVIEW

Students' satisfaction is one of the most important issues in e-learning system. The system exists for students and the student who is not satisfied will not choose that program. When the literature is examined, the most commonly used criteria are determined. The criteria used in the study and the researchers that used those criteria are shown in Table 1.

**Table 1.** *Student Requirements in E-Learning System*

| | |
|---|---|
| $C_1$: Usefulness of materials in e-learning system | Arbaugh (2000); Alexander (2001); Piccoli ve diğerleri (2001); Arbaugh (2002); Arbaugh ve Duray (2002); Wang (2003); Ginns ve Ellis (2009); Barker (2007); Selim (2007); Tzeng ve diğerleri (2007); Chang ve Tung (2008); Shee ve Wang (2008); Chao ve Chen (2009); Wu ve diğerleri (2010); Ali ve Ahmad (2011); Alptekin ve Karsak (2011); Alsabawy ve diğerleri (2011); Wu ve Lin (2012) |
| $C_2$: Diversity of materials in e-learning system | Chou ve Liu (2005); Barker (2007); Selim (2007); Tzeng ve diğerleri (2007); Sun ve diğerleri (2008); Wu ve Lin (2012) |
| $C_3$: Simplicity and ease of operations | Piccoli ve diğerleri (2001); Arbaugh (2002); Wang (2003); Selim (2007); Chang ve Tung (2008); Wu ve diğerleri (2010); Wu ve Lin (2012) |
| $C_4$: Network reliability | Piccoli ve diğerleri (2001); Wang (2003); Selim (2007); Tzeng ve diğerleri (2007); Shee ve Wang (2008); Sun ve diğerleri (2008); Jung (2010); Alptekin ve Karsak (2011); Alsabawy ve diğerleri (2011); Udo ve diğerleri (2011); Wu ve Lin (2012) |
| $C_5$: Easy and fast access from internet | Arbaugh (2000); Piccoli ve diğerleri (2001); Arbaugh (2002); Wang (2003); Hollsapple ve Lee-Post (2006); Liaw ve diğerleri (2007); Selim (2007); Tzeng ve diğerleri (2007); Wang ve diğerleri (2007); Chang ve Tung (2008); Sun ve diğerleri (2008); Chao ve Chen (2009); Jung (2010); Alsabawy ve diğerleri (2011); Wu ve Lin (2012) |
| $C_6$: Timely troubleshooting of technical problems | Piccoli ve diğerleri (2001); Wang (2003); Ardito ve diğerleri (2006); Selim (2007); Tzeng ve diğerleri (2007); Wang ve diğerleri (2007); Sun ve diğerleri (2008); Udo ve diğerleri (2011) |
| $C_7$: Easy information/ data sharing with others | Arbaugh (2000); Arbaugh ve Duray (2002); Wang (2003); Chou ve Liu (2005); Ardito ve diğerleri (2006); Selim (2007); Shee ve Wang (2008); Ginns ve Ellis (2009); Wu ve diğerleri (2010); Wu ve Lin (2012) |
| $C_8$: Measuring the learning level with various tools such as quizzes, home works, midterm exams etc.. | Arbaugh ve Duray (2002); Hollsapple ve Lee-Post (2006); Barker (2007); Chao ve Chen (2009); Ginns ve Ellis (2009); Paechter ve diğerleri (2010); Udo ve diğerleri (2011) |
| $C_9$: Learning the lessons without time and place | Wang (2003); Selim (2007); Shee ve Wang (2008); Sun ve diğerleri (2008); Paechter ve diğerleri (2010); Ali ve Ahmad (2011); |
| $C_{10}$: Supporting courses with animation, picture, sound and image | Arbaugh (2002); Baylor ve Ritchie (2002); Hollsapple ve Lee-Post (2006); Liaw ve diğerleri (2007); Tzeng ve diğerleri (2007); Chao ve Chen (2009); Jung (2010); Udo ve diğerleri (2011) |

In this study, SWARA and WASPAS methods are used to contribute the literature. SWARA and WASPAS methods are used in multi criteria decision making problems for weighting and sorting the criteria and alternatives. In the literature there aren't many articles about these methods.

Can et. al. (2017), used SWARA and WASPAS methods for selecting of seating arrangement and suppliers. Çakır et. al. (2018) proposed a hybrid model of SWARA and WASPAS to evaluate the private shopping sites in Turkey. Aytaç Adalı and Tus Işık (2017) and Toklu et. al. (2018) used these methods for the supplier selection problem.

**METHODOLOGY**

1. Step Wise Weight Assessment Ratio Analysis (SWARA)

SWARA method is developed by Kersuliene et al. (2010). It is used to determine criteria weights in decision making problems involving multiple criteria. SWARA methodology is explained as follows (Karabasevic et al. 2016; Kersuliene et al. 2010).

_Step 1._ The criteria are sorted in descending order.

_Step 2._ Starting from the second criterion, the relative importance levels are determined for each criterion.

_Step 3._ Determine the coefficient $k_j$ as follows:

$$k_j = \begin{cases} 1, & j = 1 \\ s_j + 1, & j > 1 \end{cases} \qquad (1)$$

_Step 4._ Determine the recalculated weight $q_j$ as follows:

$$q_j = \begin{cases} 1 & j = 1 \\ \dfrac{q_{j-1}}{k_j} & j > 1 \end{cases} \qquad (2)$$

_Step 5._ The relative weights of the criteria are determined as follows:

$$w_j = \frac{q_j}{\sum\limits_{k=1}^{n} q_k} \tag{3}$$

## 2. Weighted Aggregated Sum Product Assessment (WASPAS)

WASPAS is developed by Zavadskas et al (2012), as a combined version of Weighted Sum Model (WSM) and Weighted Product Model (WPM). Steps of the methodology are explained briefly (Chakraborty et al., 2015:

*Step 1.* Developing decision matrix.

*Step 2.* Normalizing the decision matrix.

$$\bar{x}_{ij} = \frac{x_j}{\max x_j} \quad \text{for beneficial criteia} \tag{4}$$

$$\bar{x}_{ij} = \frac{\min x_j}{x_j} \quad \text{for cost criteria} \tag{5}$$

*Step 3.* The total relative importance of the alternatives is calculated by WSM.

$$Q_i^{(1)} = \sum\limits_{j=1}^{n} w_j r_j \tag{6}$$

*Step 4.* The total relative importance of the alternatives is calculated by WPM.

$$Q_i^{(2)} = \prod\limits_{j=1}^{n} r_j^{\ w_j} \tag{7}$$

*Step 5.* The following formula is used to determine the relative and total significance levels of alternatives (Sengupta et al. 2017).

$$Q_i = \lambda Q_i^{(1)} + (1-\lambda)Q_i^{(2)} = \lambda \sum\limits_{j=1}^{n} \bar{x}_j\, w_j + (1-\lambda)\prod\limits_{j=1}^{n} (\bar{x}_j)^{w_j}, \quad \lambda = 0,0.1,...,1$$

## DATA AND FINDINGS

The criteria of e-learning products are determined by literature. These criteria are;

$C_1$: Usefulness of materials in e-learning system

$C_2$: Diversity of materials in e-learning system

$C_3$: Simplicity and ease of operations

$C_4$: Network reliability

$C_5$: Easy and fast access from internet

$C_6$: Timely troubleshooting of technical problems

$C_7$: Easy information/data sharing with others

$C_8$: Measuring the learning level with various tools such as quizzes, home works, midterm exams etc..

$C_9$: Learning the lessons without time and place

$C_{10}$: Supporting courses with animation, picture, sound and image

First of all, SWARA method is used for weighting the criteria of e-learning products. Creating the decision matrix, we surveyed 6 academics who are teaching at the e-learning system. Their rankings and scores for the criteria are shown in Table 2.

**Table 2.** *Ranking and Scores of the Criteria*

|  | DM1 | | DM2 | | DM3 | | DM4 | | DM5 | | DM6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Ranking | Scores | Ranking | Scores | Ranking | Scores | Ranking | Scores | Ranking | Scores | Ranking | Scores |
| $c_1$ | 8 | 0,3 | 10 | 0,2 | 8 | 0,3 | 9 | 0,3 | 8 | 0,3 | 10 | 0,3 |
| $c_2$ | 5 | 0,5 | 7 | 0,5 | 3 | 0,8 | 8 | 0,4 | 6 | 0,5 | 1 | 1 |
| $c_3$ | 9 | 0,2 | 9 | 0,3 | 7 | 0,4 | 5 | 0,7 | 7 | 0,4 | 9 | 0,4 |
| $c_4$ | 3 | 0,85 | 6 | 0,6 | 2 | 0,9 | 7 | 0,5 | 1 | 1 | 2 | 0,95 |
| $c_5$ | 4 | 0,7 | 5 | 0,7 | 1 | 1 | 6 | 0,6 | 2 | 0,9 | 3 | 0,85 |
| $c_6$ | 6 | 0,65 | 4 | 0,8 | 6 | 0,1 | 4 | 0,8 | 9 | 0,2 | 8 | 0,45 |
| $c_7$ | 7 | 0,55 | 3 | 0,9 | 10 | 0,5 | 3 | 0,9 | 3 | 0,8 | 4 | 0,8 |
| $c_8$ | 10 | 0,15 | 2 | 0,95 | 9 | 0,2 | 10 | 0,2 | 10 | 0,1 | 5 | 0,7 |
| $c_9$ | 2 | 0,9 | 1 | 1 | 4 | 0,7 | 2 | 0,95 | 4 | 0,7 | 6 | 0,6 |
| $c_{10}$ | 1 | 1 | 8 | 0,4 | 5 | 0,6 | 1 | 1 | 5 | 0,6 | 7 | 0,5 |

After applying Equations (1,2), weights of the criteria is found as in Table 3.

**Table 3:** *Recalculated Weights*

|  | $s_j$ | $k_j$ | $w_j$ |
|---|---|---|---|
| $c_9$ |  | 1,000 | 1,000 |
| $c_4$ | 0,008 | 1,008 | 0,992 |
| $c_5$ | 0,017 | 1,008 | 0,983 |
| $c_7$ | 0,067 | 1,050 | 0,933 |
| $c_{10}$ | 0,125 | 1,058 | 0,875 |
| $c_2$ | 0,192 | 1,067 | 0,808 |
| $c_6$ | 0,308 | 1,117 | 0,692 |
| $c_3$ | 0,408 | 1,100 | 0,592 |
| $c_8$ | 0,442 | 1,033 | 0,558 |
| $c_1$ | 0,525 | 1,083 | 0,475 |
| Total |  |  | 7,908 |

After applying Equation 3, the weights are calculated as follows.

**Table 4.** *Weights of the Criteria*

| $c_1$ | $c_2$ | $c_3$ | $c_4$ | $c_5$ | $c_6$ | $c_7$ | $c_8$ | $c_9$ | $c_{10}$ |
|---|---|---|---|---|---|---|---|---|---|
| 0,060 | 0,102 | 0,075 | 0,125 | 0,124 | 0,087 | 0,118 | 0,071 | 0,126 | 0,111 |

When the weights are calculated, steps of WASPAS method are followed. First of all, decision matrix is created in Table 5.

**Table 5.** *Decision Matrix*

|  | $c_1$ | $c_2$ | $c_3$ | $c_4$ | $c_5$ | $c_6$ | $c_7$ | $c_8$ | $c_9$ | $c_{10}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| $a_1$ | 6,091 | 6,364 | 6,909 | 6,273 | 7,364 | 6,727 | 6,364 | 6,000 | 7,727 | 8,091 |
| $a_2$ | 4,800 | 5,400 | 4,400 | 5,000 | 5,400 | 3,400 | 6,000 | 4,400 | 5,400 | 6,600 |
| $a_3$ | 3,833 | 4,167 | 6,167 | 6,667 | 6,667 | 5,333 | 6,333 | 5,333 | 5,667 | 3,000 |
| $a_4$ | 5,857 | 5,571 | 6,714 | 6,857 | 6,571 | 6,857 | 7,000 | 5,714 | 6,857 | 6,286 |
| $a_5$ | 5,200 | 3,400 | 5,800 | 7,200 | 7,400 | 6,600 | 5,400 | 4,200 | 6,800 | 3,400 |
| $a_6$ | 5,000 | 4,600 | 4,800 | 3,600 | 4,600 | 3,400 | 5,400 | 5,200 | 5,600 | 7,000 |
| $a_7$ | 6,400 | 5,800 | 6,000 | 6,400 | 6,400 | 5,200 | 6,200 | 6,200 | 6,600 | 6,000 |
| $a_8$ | 5,167 | 5,000 | 4,667 | 6,167 | 6,833 | 4,833 | 5,667 | 5,667 | 6,833 | 7,000 |
| $a_9$ | 4,600 | 4,200 | 4,000 | 6,600 | 6,400 | 4,000 | 5,800 | 3,800 | 5,800 | 4,800 |
| $a_{10}$ | 5,200 | 5,000 | 6,600 | 7,800 | 8,200 | 6,600 | 7,800 | 5,400 | 6,000 | 6,000 |

After applying Equation (4), normalized decision matrix is constituted as in Table 6.

**Table 6.** *Normalized Decision Matrix*

|  | $c_1$ | $c_2$ | $c_3$ | $c_4$ | $c_5$ | $c_6$ | $c_7$ | $c_8$ | $c_9$ | $c_{10}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| $a_1$ | 0,952 | 1,000 | 1,000 | 0,804 | 0,898 | 0,981 | 0,816 | 0,968 | 1,000 | 1,000 |
| $a_2$ | 0,750 | 0,849 | 0,637 | 0,641 | 0,659 | 0,496 | 0,769 | 0,710 | 0,699 | 0,816 |
| $a_3$ | 0,599 | 0,655 | 0,893 | 0,855 | 0,813 | 0,778 | 0,812 | 0,860 | 0,733 | 0,371 |
| $a_4$ | 0,915 | 0,876 | 0,972 | 0,879 | 0,801 | 1,000 | 0,897 | 0,922 | 0,887 | 0,777 |
| $a_5$ | 0,813 | 0,534 | 0,839 | 0,923 | 0,902 | 0,963 | 0,692 | 0,677 | 0,880 | 0,420 |
| $a_6$ | 0,781 | 0,723 | 0,695 | 0,462 | 0,561 | 0,496 | 0,692 | 0,839 | 0,725 | 0,865 |
| $a_7$ | 1,000 | 0,911 | 0,868 | 0,821 | 0,780 | 0,758 | 0,795 | 1,000 | 0,854 | 0,742 |
| $a_8$ | 0,807 | 0,786 | 0,675 | 0,791 | 0,833 | 0,705 | 0,726 | 0,914 | 0,884 | 0,865 |
| $a_9$ | 0,719 | 0,660 | 0,579 | 0,846 | 0,780 | 0,583 | 0,744 | 0,613 | 0,751 | 0,593 |
| $a_{10}$ | 0,813 | 0,786 | 0,955 | 1,000 | 1,000 | 0,963 | 1,000 | 0,871 | 0,776 | 0,742 |

Thereafter the equations of WASPAS methods applied, final scores of alternatives are calculated as shown in Table 7.

**Table 7.** *Final Scores and Ranking of the Alternatives*

|  | $Q_i^{(1)}$ | $Q_i^{(2)}$ | Final Scores | Scores |
|---|---|---|---|---|
| $a_1$ | 0,934 | 0,931 | 0,933 | 1 |
| $a_2$ | 0,705 | 0,698 | 0,701 | 8 |
| $a_3$ | 0,736 | 0,716 | 0,726 | 7 |
| $a_4$ | 0,884 | 0,881 | 0,883 | 3 |
| $a_5$ | 0,766 | 0,742 | 0,754 | 6 |
| $a_6$ | 0,672 | 0,658 | 0,665 | 10 |
| $a_7$ | 0,839 | 0,835 | 0,837 | 4 |
| $a_8$ | 0,802 | 0,798 | 0,800 | 5 |
| $a_9$ | 0,700 | 0,694 | 0,697 | 9 |
| $a_{10}$ | 0,894 | 0,888 | 0,891 | 2 |

## CONCLUSION

Today, e-learning system is used by many universities in our country and this situation has brought competition. Student requirements and technical requirements must be met to ensure success and satisfaction in the e-learning system. Based on the importance of the e-learning system, ten private universities were evaluated in terms of e-service quality. In this study an integrated decision approach based on SWARA (*Step-wise Weight Assessment Ratio Analysis*) and WASPAS (*Weighted Aggregated Sum Product ASsessment*) methods are performed for solving the problem.

The aim of the study is to contribute to the literature in terms of application area and methods. Firstly, SWARA method is used to evaluate the weights of the criteria. After applying the steps of SWARA, $c_9$ (Learning the lessons without time and place) is selected as the most important and $c_1$ (Usefulness of materials in e-learning system) is found as the least important criterion. When the weights are calculated, WASPAS method is used to rank the universities. According to the WASPAS method, $a_1$ is found as the best while $a_6$ is selected as the worst university.

In this study, these methods are found appropriate to use. Alternative methods like Analytic Hierarchy Process, ELECTRE, TOPSIS, EDAS etc. can be used in future studies. Likewise, the methods used in this study can be applied to different fields or sectors and thus an effective decision-making process can be followed.

# REFERENCES

ALEXANDER, Shirley (2001), "E-Learning Developments and Experiences**", Education & Training**, 43 (4/5), 240 – 248.

ALI, Afzaal and AHMAD, Israr (2011), "Key Factors for Determining Students' Satisfaction in Distance Learning Courses: A Study of Allama Iqbal Open University", **Contemporary Educational Technol**ogy, 2 (2), 118 – 134.

ALPTEKİN, S. Emre and KARSAK, E. Ertuğrul (2011), "An Integrated Decision Framework for Evaluating and Selecting E-Learning Products", **Applied Soft Computing**, 11, 2990 – 2998.

ALSABAWY, Ahmed Younis, CATER-STEEL, Aileen and SOAR and Jeffrey (2011), "Measuring E-Learning System Success", **Pacific Asia Conference on Information Systems (PACIS)**, 1 – 15.

ARBAUGH, J. B. (2000), "Virtual Classroom Characteristics and Student Satisfaction with Internet-Based MBA Couses", **Journal of Management Education**, 24, 32 – 54.

ARBAUGH, J. B. (2002), "Managing The On-Line Classroom: A Study of Technological and Behavioral Characteristics of Web-Based MBA Courses", **Journal of High Technology Management Research**, 13, 203 – 223.

ARBAUGH, J. B. and DURAY Rebecca (2002), "Technological and Structural Characteristics, Student Learning and Satisfaction with Web-Based Courses: An Exploratory Study of Two On-Line MBA Programs", **Management Learning**, 33 (3), 331 – 347.

ARDITO, C., COSTABILE, M. F., MARSICO, M. De, LANZILOTTI, R., LEVIALDI, S. and ROSSANO, V. (2006), "An Approach to Usability Evaluation of E-Learning Applications", **Univ Access Inf Soc**, 4, 270 – 283.

AYTAÇ ADALI, E. and TUS IŞIK, A. (2017) "Bir Tedarikçi Seçim Problemi için SWARA ve WASPAS Yöntemlerine Dayanan Karar Verme Yaklaşımı", **International Review of Economics and Management**, vol. 5 (4), 56-77.

BARKER, Kathryn Chang (2007), "E-Learning Quality Standards for Consumer Protection and Consumer Confidence: A Canadian Case Study in E-Learning Quality Assurance", **Educational Technology & Society**, 10 (2), 109 – 119.

BAYLOR, Amy L. and RITCHIE, Donn (2002), "What Factors Facilitate Teacher Skill, Teacher Morale and Perceived Student Learning in Technology-Using Classrooms?", **Computers & Education**, 39, 395 – 414.

CAN, G. F., DELİCE, E. K., and ÖZÇAKMAK, B. C., (2017) "Çok kriterli karar verme yaklaşımıyla oturma düzeneği seçimi", *Mühendislik Bilimleri ve Tasarım Dergisi*, vol. *5,* 213-225.

CHAKRABORTY, S., ZAVADSKAS, E. K. and ANTUCHEVICIENE, J., (2015) "Applications of WASPAS Method as a Multi-Criteria Decision-Making

Tool", **Economic Computation and Economic Cybernetics Studies and Research**, vol. 49(1), pp. 5-22.

CHANG, Su-Chao and TUNG, Feng-Cheng (2008), "An Empirical Investigation of Students' Behavioural Intentions to Use The Online Learning Course Websites", **British Journal of Educational Technology**, 39 (1), 71 – 83.

CHAO, Ru-Jen and CHEN Yueh-Hsiang (2009)," Evaluation of the Criteria and Effectiveness of Distance E-Learning with Consistent Fuzzy Preference Relations", **Expert Systems with Applications**, 36, 10657 – 10662.

CHOU, Shih-Wei and LIU, Chien-Hung (2005), "Learning Effectiveness in an Web-Based Virtual Learning Environment: A Learner Control Perspective", **Journal of Computer Assisted Learning**, 21, 65 – 76.

ÇAKIR, E., AKEL, G. and DOĞANER, M. (2018) "Türkiye'de Faaliyet Gösteren Özel Alışveriş Sitelerinin Bütünleşik SWARA-WASPAS Yöntemi ile Değerlendirilmesi, **Uluslar arası İdari ve İktisadi İncelemeler Dergisi (18. EYİ Özel Sayısı)**, 599-616.

GINNS, Paul and ELLIS, Rob A. (2009), "Evaluating the Quality of E-Learning at the Degree Level in the Student Experience of Blended Learning", **British Journal of Educational Technology**, 40 (4), 652 – 663.

HOLSAPPLE, Clyde W. and LEE-POST, Anita (2006), "Defining, Assessing and Promoting E-Learning Success: An Information Systems Perspective", **Decision Sciences Journal of Innovative Education**, 4 (1), 67 – 85.

JUNG, Insung (2011), "The Dimensions of E-Learning Quality: From Learner's Perspective", **Educational Tech Research Dev**, 59, 445 – 464.

KARABASEVIC, D., STANUJKIC, D., UROSEVIC, S. and MAKSİMOVIC, M., (2016) "An approach to personnel selection based on Swara and Waspas methods", **Journal of Economics, Management and Informatics**, vol. 7(1), 1–11.

KERŠULIENE, V., ZAVADSKAS, E. K. and TURSKIS, Z. (2010) "Selection of rational dispute resolution method by applying new stepwise weight assessment ratio analysis (SWARA)", **Journal of Business Economics and Management**, vol. 11(2), 243–258.

LIAW, Shu-Sheng, HUANG, H. M. and CHEN, G. D. (2007), "Surveying Instructors and Learner Attitudes Toward E-Learning", **Computers & Education**, 49, 1066 – 1080.

PAECHTER, Manuela, MAIER, B. and MACHER, D. (2010), "Students' Expectations of, and Experiences in E-Learning: Their Relation to Learning Achievements and Course Satisfaction", **Computers & Education**, 54, 222 – 229.

PICCOLI, Gabriele, AHMAD, R. and IVES, B. (2001), "Web-Based Virtual Learning Environments: A Research Framework and A Preliminary Assessment of Effectiveness", **Miss Quarterly**, 25 (4), 401 – 426.

SELIM, Hassan M. (2007), "Critical Success Factors for E-Learning Acceptance: Confirmatory Factor Models", **Computers & Education**, 49, 396 – 413.

SENGUPTA, R. N., GUPTA, A. and DUTTA, J., (2017) Decision Science: Theory and Practice. UK: CRC Press Taylor & Francis Group.

SHEE, Daniel Y. and WANG, Yi-Shun (2008), "Multi-Criteria Evaluation of the Web-Based E-Learning System: A Methodology Based on Learner Satisfaction and Its Applications", **Computers & Education**, 50, 894 – 905.

SUN, Pei-Chen, TSAI, R. J., FINGER, G., CHEN, Y. Y. and YEH, D. (2008), "What Drives a Successful E-Learning? An Empirical Investigation of the Critical Factors Influencing Learner Satisfaction", **Computers & Education**, 50, 1183 – 1202.

TOKLU, M., ÇAĞIL, G., PAZAR, E. and FAYDALI, R., (2018) "SWARA-WASPAS Metodolojisine Dayalı Tedarikçi Seçimi: Türkiye'de Demir-Çelik Endüstrisi Örneği", **Academic Platform Journal of Engineering and Science**, vol. 6 (3), 113-120.

TZENG, Gwo-Hshiung, CHIANG, C. H. and LI, C. W. (2007), "Evaluating Intertwined Effects in E-Learning Programs: A Novel Hybrid MCDM Model Based on Factor Analysis and DEMATEL", **Expert Systems with Applications**, 32, 1028 – 1044.

UDO, Godwin J., BAGCHI, K. K. and KIRS, P. J. (2011), "Using SERVQUAL to Assess The Quality of E-Learning Experience", **Computers in Human Behaviour**, 27, 1272 – 1283.

WANG, Yi-Shun (2003), "Assessment of Learner Satisfaction with Asynchronous Electronic Learning Systems", **Information & Management**, 41, 75 – 86.

WANG, Yi-Shun, WANG, H. Y. and SHEE, D. Y. (2007), "Measuring E-Learning Systems Success in an Organizational Context: Scale Development and Validation", **Computers in Human Behavior**, 23, 1792 – 1808.

WU, Hung-Yi and LIN, Hsin-Yu (2012), "A Hybrid Approach to Develop an Analytical Model for Enhancing the Service Quality of E-Learning", **Computers & Education**, 58, 1318 – 1338.

WU, Jen-Her, TENNYSON, R. D. and HSIA, T. L. (2010), "A Study of Student Satisfaction in a Blended E-Learning System Environment", **Computers & Education**, 55, 155 – 164.

THOUGHT LEADERSHIP:
A NEW APPROACH
RESPONDING TO EMERGING
BUSINESS CHALLENGES

CHAPTER

21

R. Dilek KOÇAK

## INTRODUCTION

In every field, leadership is a vital element for organizational success because it can determine goals and the methods to attain them and use the necessary tools and resources to achieve targets. In business, leadership also has a critically important role in very harsh competitive markets to increase efficiency and maximize profits. Organizations have therefore developed leadership programs get maximum benefit from the leadership role. Studies have shown that organizations prioritizing leadership progress program are more capable of "meeting the expectations of their constituents, stakeholders, and customers" (Kolzow, 2014: 5). Overall, better leadership in any organization leads to better outcomes (Sundheim, 2013).

In today's business world, customers can access information about products, quality, brands, prices, etc. very fast. This clear progress has enabled customers to become more effective shapers of entrepreneurs' decisions because they can compare between brands. Meanwhile, globalization has created new challenges for conducting business, such that businesses need to constantly innovate to gain and maintain a competitive advantage (Jung, et al., 2003: 526). They also need leadership focusing innovative thoughts and technology or new methods in all business fields, such as customer relations, production, management, distribution, sales, and marketing. Thus, a new leadership model that goes beyond the traditional one is required to overcome competing market challenges.

These challenges and hardships in the global business world are also varying and increasing daily, so the leadership concept is also evolving (Day & Antonakis, 2012: 6). Recent studies have developed a new theoretical approach toward leadership that focuses on new insights and innovations beyond classical thinking to achieve organizational goals. This new leadership is called 'thought leadership' to meet new globalized corporate businesses. Other factors have also encouraged thought leadership to emerge. For example, thought leaders need to expand their business, markets, and cost-effectiveness while maximizing profits via new ideas and creative methods and abandoning traditional approaches. Additionally, thought leaders also consider how to help their organization through thought-provoking, innovative, and transformative ideas covering anything from technologies to ethics. Given that satisfying customer demands has become critical to business life, business leaders now focus on how to meet customer expectations through novelty and trust (Van Halderen, 2015). Finally, on a global level, the financial crisis has convinced some that people need to extricate themselves from the neo-classical vision that has dominated the economy for years; this has triggered some scholars to reflect on human and environmental sustainability (Van Halderen, 2015:

8). New societal change requires a new approach to leadership, which we call thought leadership.

The major finding is that thought leadership, as a relatively new approach, focuses on meeting the challenges of corporate business that have emerged in a globalized world through new thinking, innovation, creative ideas, and transformational solutions to meet customer expectations, reflect social change requirements in business life, and differentiate companies from their competitors. Finally, the paper considers how the evolution of thought leadership has progressed towards a new approach regarding non-managerial structure, customer relations, societal transformation, and creativity. Thought leadership marketing has become the preferred approach for education CEOs, other high-level posts, and other companies to compete with the emerging risks and challenges in business today.

## Methodological Outline

Emerging challenges in a globalized and integrated world require a new kind of leadership focused on creativity, innovation, insight, logical sense and acknowledging customer demands and preferences, beyond classical thinking, to achieve organizational goals. The paper examines the following questions analyze thought leadership.

What are is philosophical background of thought leadership?

What are the definitions of thought leadership?

What are the features and dynamics of thought leadership?

How has thought leadership evolved, towards which direction or venue?

What is major output of this analysis?

The specific method used in this study examines thought leadership from various perspectives, as outlined in the questions to be answered below.

The study mainly uses qualitative research using facts from the business, theoretical, social, political, and economic database. This information, gathered from various sources, such as academic journals, books, booklets, and e-books, are then harmonized with the author's own assessments.

### Philosophical Background (Root Causes) of Thought Leadership

Thinking about and inventing new ideas, approaches, and views that can change political, cultural, economic and business life are ineradica-

ble human traits. Such "new ways of thinking have led to paradigm shifts in society and business" (TPS, 2018:5).   throughout history. For example, during there was a paradigm shift in ancient Greece in understanding the world as great philosophers like Aristotle, Plato, and Socrates tried to explain nature and earth through reasoning and logic beyond a religious approach. These philosophers can be considered the world's first thought leaders who thought differently as they studied and analyzed a diversity of "topics, including politics, ethics, logic, and biology. The dialogues of the ancient philosophers led to movements that shaped the way people thought, worked, and lived "(TPS, 2018:5). Similarly, ancient Rome's Republic was built on the writings and oration of its leading thinkers (Church et al., 2011, 13). The French Revolution of 1789 was also the result of political thought leaders who provided the people with enlightenment and intellectual progress, leading to idea that a society under absolute domination can gain a say in governance by making fundamental changes. For example, Descartes, alongside enlightenment thoughts, referred to the existence of reason and free though, while Montesquieu thought that the people should be represented in the administration through proxies as well as pondering the idea of a government in which separation of powers is adopted. J.J. Rousseau argued that all people are equal and that a form of government in which people have a say should be implemented while Adam Smith and David Ricardo were the first economic thought leaders to map out the essential future of classical liberal theory.

The latest developments in the modern globalized world have altered business dynamics by creating new challenges for entrepreneurs. First, the widespread role of the internet in business provides customers with rapid and wide access to information whereas information was previously held by a few people. Today, because of websites like Google and Wikipedia, information is now in the hands of countless people (Church et al., 2011: 23). This allows customers to access information about products, quality, brands, prices, etc. very fast. This progress has enabled customers to effectively shape the entrepreneurs' decisions as customers can compare between brands while deciding what to buy. This has made traditional leadership obsolete as it deals only with cost-effectiveness, maximization of profits, and sustaining a hierarchal organizational structure. Conversely, new leadership must consider differentiating the company form the others and influencing customers' preferences now that they have the tools to access data in the information age. To gain and keep a competitive advantage, organizations or business establishments need to continually innovate (Jung, et al., 2003: 526) through leadership that focuses on innovative ideas, thoughts, and technology, or new methods in all fields of business.

Business practices have changed in many ways due to technological innovation over the past 100 years. This has caused historically significant shifts in the world of business. For example, whereas constructing and selling products were previously major business activities, by 2010, the 10 largest businesses were mainly related to the creation and sales of invisible, intangible business, such as pharmaceutical products, brands, computer coding, genetically-based engineering, web-based technology, and telecommunications (Church et al., 2011: 25). This has necessitated new thinking and new leadership to cope with the changing conditions.

In the modern information age, a new generation has grown up with modern communication tools and technologies like the internet, laptops, tablets, Facebook, and email  These generational shifts, coded as X, Y, and Z shifts, have required new forms of thinking and new forms of thought leadership (Church et al., 2011: 28). For a company to be efficient, highly organized, and informed on the internet, social networking sites such as Twitter and Facebook. Thought leadership exploits these social marketing platforms just for that purpose (Church et al., 2011: 29).

Meanwhile, market realities have increased pressure on firms to raise their efficiency and effectiveness and become even more creative so they can manufacture new products. Furthermore, it has forced companies to improve their processes to decrease costs because of competition. Because of these developments, companies must also identify factors that can stimulate creative behaviors within the organization (Sidikat & Ayanda, 2008: 116; Rakoditsoe, 2016: 1).

Globalization has thus created both challenges and opportunities for conducting business. A major challenge is the increased need to innovate and differentiate from other companies in business activities (Church et al., 2011: 28). Otherwise, it will be very challenging to satisfy customer need and demands. This requires new ideas in customer relations, production, management, distribution, sales, and marketing. In turn, a new leadership model to replace traditional leadership is needed to overcome competitive market challenges." Failure to adapt to the environment and external factors could cause businesses to fail. However, for an organization to be able to adapt to the changing environment, it needs a visionary leadership" (Hamrouni &Akkari 2012: 192).

Throughout history, there have been many ideas and thinking approaches enabling business to expand. These ideas have been defined inform various theoretical perspectives. Among them, leadership theories have been significant ways to develop business activities in theory and practice because leadership is an essential factor for success in any business.

The traditional leadership concept focusing on making profits is not enough for firms to survive in a competitive market environment. New leadership models must first consider reinventing or innovating to compete in challenging market conditions. Therefore, new leadership should create the future for the organization as markets are dynamic; organizations must create a competitive advantage. This paradigm shift has led to a new role for leadership (McCrimmon, 2005: 1066; Rakoditsoe, 2016: 11). This leadership paradigm, thought leadership, aims to stimulate innovation, new ideas, new technologies, or new processes to increase the chances of gaining a competitive advantage in business dynamics.

Thought leadership provides firms with novel perspectives and solutions that make them aware of market challenges and opportunities. Furthermore, thought leaders provide customers with new perspectives on wider issues and challenges. This leads customers to regard the firm as their reliable advisor in the market and business activities (van Halderen, et. al, 2013: 8).

## Thought leadership Features and Dynamics

### Features

According to leadership scholars, there are several types of leadership styles, such as autocratic leadership, bureaucratic leadership, charismatic leadership, democratic leadership, transactional, servant leadership, and lateral leadership. All these leadership styles have their own features. However, thought leadership displays some features or dynamics that provide some essential characteristics that differentiate it from other leadership styles. These features can add value to thought leadership.

Though leadership is quite a new leadership style that has emerges within the post-1990s globalized world. Therefore, it does not reflect the traditional leadership styles that put great emphasis on sales, market share, and maximization of profits in a business environment where the responsibility of everyone is precisely determined within hierarchical structures. Thought leadership does not convey the features of traditional leadership styles in this perspective. There is no hierarchical structure as there is no seniority-subordinate relationship. This means that there are no manager-follower relations as no one manages anyone. The core principle of thought leadership to create an environment where all people can focus on creating new ideas to overcome business hardships. Anyone who creates valuable thinking that increases the company's success is a thought leader, regardless of their post in the company. Therefore, it is noteworthy to draw a distinction between thought and traditional leadership. Traditional

leadership utilizes authority over followers and displays diverse leadership styles, such as charismatic, altruistic, transformational, and commanding (Alhaddi, 2014; Alhaddi, 2015). In thought leadership, however, such commanding authority is disregarded as there is no hierarchal formation.

Another feature of thought leadership concern selling or marketing, although it generally does not deal with traditional marketing and selling issues for a company's success. Instead, thought leaders try to influence customers through all kinds of tools presented by modern technologies (Brosseau & Kawasaki, 2013). In this way, they differentiate their company from competitors through logic, thinking, creativity, and innovation.

As explained earlier regarding the origins of thought leadership, it is the conclusion of an integrated world through modern communication instruments. Rapidly shared information has empowered customers with brands, marketing, etc. Therefore, thought leadership is a logical solution to compete with these emerging challenges. Therefore, it generally does not deal with a traditional company's business issues. Rather, it serves as a catalyst for a new thinking to satisfy stakeholders, create benefits in the long run, and transform the world (Van Halderen et al., 2013).

It is also worth explaining the relationship between thought leadership and innovation. Some thought leadership scholars argue that it is not identical to innovation (McCrimmon, 2005) while a few, like Van Halderen & Kettler-Paddock (2011) claim there is an enormous difference. They consider innovation as translating a new idea into a product or service whereas thought leadership is about connecting a certain vision with a societal problem and influencing the market as well as the owner of the novel point of view. Moreover, thought leadership creates novelty in a specialty that goes beyond the product and service. This is partly correct, as innovation is not just ideas to translate into products and services, which is a very narrow definition. It also can include more in a wider definition, such as new procedures in business management, creative ideas in collaboration and coordination, or thinking methods to increase productivity. Thus, innovation is not just making new products; it also includes new business processes, fresh ways of making things, radical alliances, and new marketing and business strategies (Sloane, 2003: 7-8). The key point here is that, until the implementation phases, all new ideas and creativities are considered to involve thought leadership.

### Dynamics of Thought Leadership

Research suggests that the features or dynamics of thought leadership can be categorized into the following groups: new ideas, innovations, col-

laboration, customer relations, novelty wording and trust, societal transformation, and long-term effect.

### Thinking new and creative ideas

Thinking of new ideas is an essential feature of thought leadership as its major characteristic is to create revolutionary ideas that can differentiate companies from their business rivals. Thought leadership is essential for any organization that depends on incessant improvement and persistent innovation to prosper. To succeed in competitive markets and maintain a trust-based relationship with customers, managers should also pioneer new ideas (McCrimmon, 2005). To do this, managers or other stakeholders must have intelligence and knowledge, be self-initiators, and loyal to the institutional identity. Therefore, thought leadership can be regarded as an initiative rather than a role or position. Anyone who can alter the company's vision, organizational structure, or marketing share can be deemed a thought leader. Thus, thought leadership does not necessarily refer to executive leaders because "non-managerial employees with revolutionary mindsets and the capability to champion new ideas" leaders (McCrimmon, 2005: 1064) can also be regarded as thought if they can convey brilliant new ideas that can increase the company's profitability and productivity, and raise its business status. From this perspective, thought leadership begins with the spark of a new idea and ends with implementation readiness for the idea, unlike traditional leadership, which is concerned with the organization's overall survival (Alhaddi, 2015: 55).

The key point is here that thought leadership has the capacity and offers the opportunity to transform the way we think through new ideas. Thought leaders "inspire leadership; they ignite imaginations, explode old myths, and illuminate paths to the future that others can follow" (Butler, 2012: 1). Additionally, thought leaders provide platforms to introduce new idea; they engage and build alliances with other players in the same field to solve problems (Beck, 2012).

Increased access to knowledge through new communication tools has de-emphasized traditional ways of doing business because rapid dissemination of information has increased the awareness of other companies and customers about new products, their specifications, etc. Market conditions have forced leaders to be more creative in production, sales, customer relations, etc. Thus, distinct, provocative, triggering, or charming ideas can make firms successful. Facebook or Instagram are the best examples of thinking up new ideas. Overall, thought leadership can be defined as playing the pioneering role for new ideas.

## Innovations

The other key dynamic or feature of thought leadership is innovation. Innovation can be defined as developing and implementing creative ideas. It is the process that translates a creative idea into a product or service for which customers are prepared to pay (Al-Badi et al., 2014: 10). Innovation involves creative thinking and the development of new ideas, technologies, and processes to create distinct products (Alhaddi, 2013). Thus, innovation is not just making new products; it also includes new business processes, fresh ways of making things, radical alliances, and new marketing and business strategies (Sloane, 2003: 7-8).

A key characteristic of innovation is that it can alter the status quo in product and service use (e.g. a new flavor of toothpaste or replacing horse-drawn carriages with automobiles, cellular phones instead of radios) (Al-Badi et al., 2014: 10). This means innovation is the amendment or new manufacturing of product in a different style and with new characteristics that satisfy customers with new features. Innovation has been applied to a wide range of disciplines, including services, design, processing, approaches, methodologies, or offerings (Alhaddi, 2015:55).

Chalhoub (2010 in Alhaddi, 2014) asserts that the relationship between thought leadership and innovation is a cultural necessity in a competitive globalized world. In summary, innovation is one of the major dynamics that provides essential features to thought leadership. Thought leadership inherently focuses on new ideas and their implementation in business.

## Customers

Thought leadership prioritizes customer's needs by aiming to satisfy them. This is the critical task or mission in any business activities. Thought leadership is the consistent commitment to client needs by creating credibility, visibility, and brand loyalty. This makes it an influential asset in helping firms to appeal, maintain, and empower their abilities (Al-Badi et al., 2014, 11).

Thought leadership gives companies novel viewpoints and solutions to considerably raise their profiles and help them follow the latest market developments. Customers need thought leaders for their stimulating views on various topics and challenges that matter to them. This thought leadership makes customers regard the firm as their trusted advisor in the market (Van Halderen, et al., 2013).

Thought leadership is about having a culture that promotes the generation and implementation of ideas that directly impact business success

(Young, 2013). Today's customers are much more informed and intelligent. To keep such customers satisfied, companies must do much more than a traditional business. They must transform themselves in accordance with emerging trends and aspirations. This involves thought leadership, with its futuristic vision, continuous innovation, and the power to influence and drive others with the ideas and vision (Young, 2013).

Van Halderen et al., (2013: 12) describe thought leadership and customer relations in terms of novelty and trust. Both are regarded as pillars of thought leadership. Thought leadership in an organization handles customers through novelty and trust approaches. Thought leadership use novelty to attract and retain the customers' interest in the company. Novelty expresses customers thought provoking ideas to find a solution to their difficulties. To sell a new idea to customers, an organization should create trust with their stakeholders; trust will make the task achievable because a strong influence will have to go into the adoption of the idea.

## The long term effects

Normally, thought leadership should focus on long-term business activities rather than day to day activities. It must prioritize provocative ideas that raise the firm's profile for customers over a longer period. Sustainability is a key issue for companies wishing to maintain prestige for a long time. It is true that trust and novelty, which increase the company's profile, can be best achieved through thought leadership. Beck (2012 in Rakoditsoe, 2016) also emphasizes that a long-term perspective is appropriate for thought leadership. Thought leaders are needed for the longer term because they have knowledge about the industry, issues, and the business. In addition, they can provide knowledge and insights about the future. Van Stam (2013:51) claims that thought leadership might be utilized to share knowledge and establish alliances among diverse cultures. This is because thought leadership provides a platform for information sharing in areas of expertise and provides guidance on issues (Rakoditsoe, 2016:19). Thought leaders emphasize sparkling ideas, which can occur suddenly and transform a company through raising its profiles. The key issue is here that thought leadership must avoid focusing on daily business but emphasize the long term.

## Societal transformation

Societal transformation is a new dimension of thought leadership, developed by Mignon van Halderen (2015: 8-9) in his book "Paradigm Shifting". He asserts that organizations that connect people are at the center of societal change. People's disengagement from the neo-classical economic

vision, the global financial crisis of 2008, increasing awareness of human and environmental concerns in business, and people's distancing themselves  from societal establishments have all shaken old ways of acting, ignored ingrained and interlocked systems, and replaced old types of logic with refreshing new ones (Van Halderen, 2015: 8-9).

According to Van Halderen, society can experience three transformative phases. First-order change involves slight adjustments in structures, programs, or politics to better implement strategies or policies (Bartunek, 1984 in van Halderen, 2015). In second-order change, organizations and communities shift from one set of fundamental beliefs to another. Third-order change involves fundamental transitions in how we deal with important societal themes. Considering several such themes (healthcare, education, and energy), people are at the center of a current transition (van Halderen, 2015: 9). It is exactly third-order change that necessitates abandoning old habits of thinking and acting. It leads to an awareness of current means of thinking and dictates the transformation to something new, different, or even impossible (van Halderen, 2015: 9). In sum, thought leadership with a transformation focus can play a clear role in producing desired societal changes (van Halderen, 2015: 25). However, to understand the dynamics of thought leadership, we need to describe other factors that affect thought leadership completely.

## The Evolution of Thought Leadership

As outlined in previous sections, thought leadership focuses on encouraging the invention and implementation of ideas that directly influence business success (Young, 2013). Thought leadership has evolved to provide solutions for the business sector in a challenging and competitive environment that is strongly affected by globalization and integration. Thought leadership was invented to respond to these challenging conditions.

These emerging trends demonstrate that the leadership concept has evolved from an individualistic and influence-based approach to a more humanistic, collaborative, thoughtful approach that incorporates innovation, strategy and stakeholder management. (Young, 2013) Considering these developments, thought leadership enabled a new approach to leadership. Since then, thought leadership has evolved to find the "most effective ways for creative agencies to differentiate themselves from their competitors and to gain the attention of potential clients" (Blyth, 2017: 2). The concept has widened to include creative and innovative new ideas that can be put forward by anyone in company without regard to their post in the company. Therefore, a thought leader can refer to an individual or firm

that is known as an authority in a specialized field and whose expertise is respected (Prince & Rogers, 2012).

Business-to-business (B2B) marketing is facing a transformation because the traditional ways of marketing through standard advertising are no longer an important marketing tool of choice. B2B marketing practitioners have extensively investigated thought leadership as the most effective tool to capture attention, display competences, and involve the audience to act (Thought Leadership Marketing, 2011: 6-7). On the other hand, as business complexity expands, B2B and business to custom relations (B2C) have started to utilize thought leadership to form their brand, raise brand awareness, create an exclusive platform for competitive differentiation, and establish deeper relationships with customers (Van Halderen et al., 2013: 3). This evolution has made thought leadership to be attractive to firms.

Company demand for thought leadership has created education marketing for thought leadership. Companies have utilized thought leadership marketing for fundamental business innovation as a major source of competitive advantage to capture audiences, demonstrate core competency, and achieve competitive differentiation (Al-Badi et al., 2014: 1). Besides, there is a growing education need for challenging commercial suggestions because traditional advertising tools and media are inadequate. Consequently, education often take place through thought leadership. Thought leadership has also included some current famous concepts and terms in business. For example, while privatization, total quality management, business process outsourcing, of B2B terms were once unknown, "they are known today only because thought leadership campaigns brought them to widespread usage and common knowledge" (Young, 2013). This evolution has contributed enormous value to thoughtful leadership. Additionally, the numerous thought leadership training programs for CEOs and other managers in companies indicate that this is a growing trend.

Finally, as society has faced growing climatic, economic, and social challenges that require a societal transformation and a paradigm shift in understanding and solving problems, thought leadership is a response to tackle societal transformation.

In summary, thought leadership has evolved toward responding to emerging requirements and demands of business environments. It is a relatively new concept and requires deep knowledge and expertise, companies hesitate to involve themselves in it. Similarly, the complexity of term frequently causes misunderstandings and reduces trust (Van Halderen et al., 2013). Likewise, since thought leadership requires substantial resources

to implement it, some companies avoid it due to their lack of commitment (Iddrisu, 2017: 26-28).

## Conclusion

In every field, effective leadership is a vital element for organizational success because it improves results. Until recently, numerous leadership theories focused on its business and organization functions. More recently, however, the complexity of business has increased due to developments in an integrated and globalized world of modern technologies and communication tools. This requires a new leadership style to respond to new hardships and challenges. In particular, the modern integrated world enables rapid access to information about product quality, brands, prices, etc. This has made customers able to shape entrepreneurs' decisions by comparing between brands. Meanwhile, globalization has created further challenges for conducting business. To gain and maintain a competitive advantage, businesses need to innovate persistently (Jung et al., 2003: 526) and adopt leadership styles focusing on innovative ideas, thoughts, technology, and methods in all fields of business,

As a relatively new approach, thought leadership focuses on meeting the challenges of a globalized world through new thinking, innovations, new ideas, and transformational solutions to meet customer expectations, reflect social change requirements in business life, and differentiate companies regarding marketing share. Finally, thought leadership employs new methods to upgrade and boost the knowledge of high-level post occupiers regarding markets and business influenced by a globalized world.

Regarding the features of thought leadership, it does not reflect traditional leadership styles, and does not deal with traditional marketing and selling issues for a company's business success. As explained regarding the origins of thought leadership, it is the conclusion of an integrated world through modern communication instruments. Rapidly shared information has empowered customers in branding, marketing, etc. Thought leadership offers a logical solution to respond to these emerging challenges, as a catalyst for new thinking to satisfy stakeholders, create benefits in the long run, and transform the world (Van Halderen et al., 2013).

Regarding the differences between traditional and thought leadership, traditional leadership emphasizes hierarchal structure whereas there are no seniority-subordinate relations in thought leadership. While traditional leadership focuses on maximizing profits and efficiency, thought leadership searches for creative ideas to transform the company to an ideal level.

Concerning the dynamics of thought leadership, it aims to reflect the realities of the current business world. That is, creative ideas, innovation, long term effect, and societal transformation are the most important dynamics that add value to thought leadership.

Overall, although thought leadership is relatively new and still being developed, most theoreticians of thought leadership can accept that thoughtful leadership should at least be impactful, insightful, balancing stakeholder interests, engaging, and focused (TPS, 2018: 3).

# REFERENCES

1. A. Blyth, "The Guide to Agency Growth Through Thought Leadership", Red Setter, http://redsetteragency.com/wp-content/uploads/2017/10/Red-Setter-guide-to-agency-growth-through-thought-leadership.pdf, 2017.

2. A. D. Hamrouni, I. Akkari, "The entrepreneurial failure: Exploring links between the main causes of failure and the company life cycle", International Journal of Business and Social Science, 3(4): 189-205, 2012

3. A. Sidikat, A. Mukaila Ayanda, "Impact assessment of business process reengineering on organisational performance". European Journal of Social Sciences, 7(1): 115- 125, 2008

4. D. Brosseau, D., K. Guy, "Ready to Be a Thought: How to Increase Your Influence, Impact, and Success", John Wiley & Sons, Incorporated ,2013.

5. D. I. Jung, C. Chow, A. Wu, "The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings". The Leadership Quarterly, 14(4): 525-544, 2003.

6. D. R. Kolzow, "Leading from Within: Building Organizational Leadership Capacity", https://www.iedconline.org/clientuploads/Downloads/edrp/Leading_from_Within.pdf 10, 2014 (Access Date: 25.08.2019).

7. D. V. Day, J. Antonakis, "Leadership: Past, present, and future", https://www.researchgate.net/publication/285709072_Leadership_Past_present_and_future 3-25, 2012.

8. G. Butler, "Think write grow. How to become a thought leader and build your business". Australia: John Wiley & Sons, 2012

9. G. Van Stam, "Thought Leadership in e-Governance, e-Infrastructure, and e-Business in Africa. In e-Infrastructure and e-Services for Developing Countries", 49-58, 2013.

10. H. Alhaddi, "Thought Leadership in Blue Ocean Strategy: A Note for Strategic Managers", Proceedings of the Mustang International Academic Conference, Nashville, Tennessee,2014

11. H. Alhaddi "Innovators or Thought Leaders: What do Organizations Need?", International Journal of Managerial Studies and Research (IJMSR) Volume 3, Issue 2, pp 54-58,2015.

12. J. Beck, "Thought Leadership: Making It a Development" Tool: http://www.franchise.org/thought-leadership-making-it-a-development-tool-0: 2012, (Access Date: 15.04.2019).

13. J. M. Bartunek, "Changing interpretive schemes and organizational restructuring; the example of a religious order", Administrative Science Quarterly, 29, 355-372,1984

14. K. Sundheim, "Defining Improving and Teaching Leadership with Those Who Know It Best", https://www.forbes.com/sites/kensundheim/2013/10/28/defining-leadership-with-those-who-know/, 2013, (Access Date:30.08.2019).

15. L. Iddrisu, "Thought Leadership: Becoming an Influence in Your Niche", Master Thesis, Vaasan Ammattikorkeakoulu University of Applied Sciences,2017.

16. L. Rakoditsoe "The effects of thought leadership on organizational performance in corporate and investment banking operations", Dissertation of Master, North-West University, USA,2016.

17. L. Young, "How Thought Leadership Invented the Modern World", September 12, https://www.itsma.com/how-thought-leadership-invented-the-modern-world/, 2013.

18. M. Al-Badi, A. Awosika, Z. Kul-Mukhammed, J. Vincent, C. Washington, "Thought Leadership: Designing A Framework for CXO Engagement", http://www.thought-starters.com/pdf/designing-a-framework-for-cxo-engagement.pdf, 2014.

19. M. Church, S. Stein, M. Henderson," Thought Leaders", Thought Leaders Publishing, 2011.

20. M. McCrimmon, "Thought leadership: a radical departure from traditional, positional leadership", Management Decision, 43(7/8): 1064-1070, 2005.

21. M M. V. Halderen, "Shifting Paradigms, Thought Leadership as Instigator of Societal Change ", Speech at Fontys University, the Netherlands, 15 October 2015.

22. M. Van Halderen, K. Kettler-Paddock, "Making sense of thought leadership", RSM Insight, 2011, No. 6.

23. S. Crainer, D. Dearlove," Branding Heavyweights". Management Review, 88 (9):22-28,1999.

24. P. Sloane, "The leader's guide to lateral thinking skills", GB and USA, Kogan Page Limited, 2003.

25. R. A. Prince, B. Rogers, What is a Thought Leader? Forbes, 2012. See ttps://www.forbes.com/sites/russprince/2012/03/16/what-is-a-thought-leader/#26b185707da0

26. TPS Key Trends in Marketing: Thought Leadership, http://www.tradepressservices.com/wp-content/uploads/2018/08/TPS-Thought-LeadershipWhitePaper2018Web.pdf (Accessed Date, 01.09.2019), (2018)

# CONSTRUCTION OF THE TURKISH NATION DURING THE 1930s: TURKS AS THE CIVILIZERS OF THE WORLD

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## INTRODUCTION

One of the themes in research of nationalism is the extent to which nationalism could be understood as a continuation of long-standing patterns of ethnicity or as something distinctively new and modern. In other words, the main problem is whether we should look for the roots of nationalism in primordial characteristics such as ethnicity, race, and language that have existed prior to modernity or, rather, in the process of modernity through which groups of people who did not necessarily have ethnic ties were transformed into nations. According to the primordial view of nation (Van Den Berghe, 1994; Shils, 1957), ethnic and biological ties are ends in themselves and they resist the homogenization predicted by the modern view of nations (Anderson, 1991; Gellner, 1997; Hobsbawm, 1989). On the other hand, according to the modern view of nations, the idea of nation as a group of people linked by co-residence or common socio-cultural characteristics took on political and cultural connotations in the early modern era. Thus, the crucial difference between primordial ethnicities and nations is that the latter are political communities. This transforms nationalism not into a claim of ethnic similarity but into a claim that certain similarities should count as a definition of political community. While, according to Anderson (1991), language was the main constituent of the nation, which enabled people to develop new methods of imagination about their communities, according to Gellner (1997), a standard high culture created through a universal education system was the main constituent of the nation.

Some scholars have distinguished between Western/civic and Eastern/ethnic nationalism (Brubaker, 1992; Kohn, 1994) based on these two different approaches. Accordingly, Western nationalism has more civic and liberal characteristics whereas Eastern nationalism has more ethnic characteristics. For example, Kohn (1994) suggests that Western nationalism is based on the existence of civic institutions and a bourgeoisie, whereas their absence in the East has caused Eastern nationalism to be more organic and dependent on intellectuals to articulate a national idea based on the manipulation of memories, symbols, and myths. However, many scholars of nationalism have challenged this view (Kuzio, 2002; Yack, 1999; Nielson, 1999). Like Eastern states, Kuzio (2002) argues, Western states have a cultural legacy consisting of values, myths, and identities. Kuzio (2002) claims that in the early period of the Western states, nationalism was more ethnic than civic in nature, as no state can be expected to remain neutral while deciding on the language, culture, and symbols it will promote.

Instead of making a clear-cut distinction between the modern and primordial features of nations, some scholars argue that while nations might be a modern phenomenon, they have stronger roots in the past. For exam-

ple, Smith (1989) argues that nationalism has stronger roots in premodern ethnicity. Smith is aware of the fact that nations cannot be seen as primordial but argues that they are rooted in relatively ancient histories. Smith (1989) agrees that we can trace the emergence of nationalism as an ideology back to the late eighteenth century as Gellner (1997) suggests, but the ethnic origins of nations are older. Therefore, Smith (1989) distinguishes himself from scholars who see the nation as a solely modern phenomenon. Smith (1989) suggests that, in the modern era, different *ethnies*—which he identifies as communities with a set of origin myths, historical memories of shared experiences, a culture (language, customs, or religion), and a sense of solidarity among members—are transformed into nations. According to Smith (1999), nationalism has emerged amidst widespread religious doubt and secularism. Given the widespread mobility, uprooting, and emigration, many of the old values and beliefs were unable to provide meaning and guidance for meaningful action. In this context, some communities were more fortunate than others because they had preserved their ethnic ties and sense of community, which they could then use to construct their nation (Smith, 1999). Conversely, others had to reform or invent these ties that had been dissolved and forgotten. In both cases, ethnic myths provided a framework for social solidarity, enabling the group to make sense of its relocation (Smith, 1999).

In this article, drawing on Anthony Smith's arguments, I investigate the Turkish History Thesis and Sun Language Theory, constructed during the 1930s in modern Turkey. The Turkish History Thesis claimed that Central Asia, which was considered to be the first land of the Turks, was the centre of many civilizations in the world; thus, the Turkish nation was the source of many great civilizations. The Sun Language Theory claimed that the Turkish spoken in Central Asia was the source of many languages in the world and that many other languages emerged from Turkish. These two theories were an attempt to create an ethnically homogenized nation-state after the collapse of the multi-ethnic and multi-religious Ottoman Empire. To construct these theories, the founders of the Republic relied on ancient myths, golden ages, and a homeland. The main goal was to create the idea that there was something that could be identifiable as Turk. That is, similar to what Smith suggests, the founders of the Republic attempted to make some ethnic characteristics of Turks a part of the national consciousness to create a modern nation. However, this process was not straightforward. That is, Turkish "*ethnie*" was not simply waiting to be transformed into a Turkish nation. The first thing that had to be done was to reconstruct the Turks' history, myths, and language, all of which had retreated during the Ottoman Empire. Thus, although Smith (1989; 1999) suggests that what happens in the modern period is the transformation of *ethnies* into nations,

as proposed by the modern view of a nation, this process, too, involves a new kind of imagination and social organization that would allow people to develop a sense of belonging to their new community—namely, nation.

## Turkish Nationalism in the Ottoman Empire

The goal of crafting a Turkish nation based on Turkish ethnicity emerged during the 1930s. However, it is possible to trace the emergence of Turkish nationalism back to the nineteenth century of the Ottoman Empire. In the Ottoman Empire, Muslims were composed of different ethnic groups, such as Arabs, Kurds, and Albanians. Other religious communities, such as Orthodox, Armenians, and Gregorians, were called *millet,* each of which had partial autonomy in their internal affairs, such as religion, education, and charity (Mardin, 2004). The policies of the Ottoman state had a very crucial impact on the social and economic life of these religious communities but did not alter their cultural and religious lives (Karpat, 1982). Despite the autonomy given to the millets, complete equality was lacking between Muslims and non-Muslims. For example, non-Muslims were denied appointment to the highest administrative posts and were not permitted to serve in the military force but were required to pay a special tax for compensation (Davison, 1954). During the nineteenth century, the Ottoman Empire reformed its administrative system in such a way that it could achieve a system of equal citizenship by removing the inequalities between Muslims and non-Muslims. For example, Hatt-i Humayun of Gulhane (Noble Edict of the Rose Chamber) in 1839 promised a guarantee for security of life property, as well as honor to all subjects of the Empire, regardless of their religion and ethnicity. This was followed by Hatt-i Humayun of 1856 (Noble Edict of 1856), which promised equal treatment of all subjects in terms of education, appointment to government posts, and taxation and military services. It also forbade ""every distinction or designation tending to make any class whatever of the subjects of my Empire inferior to another class, on account of their religion, language, or race" (Davison, 1954, p. 847).

From the point of nationalism, the most important consequence of these reforms was the affirmation of equality before the law regardless of one's religious affiliation. The reforms aimed to create a political organization in which different religious and ethnic groups could identify themselves with the Ottoman state instead of emphasizing their differences. These reforms indeed paved the way for a new principle called Ottomanism, which is defined as "an attempt by [the] Ottoman government to use single citizenship as a common political identity in order to achieve equality and unity among all Ottoman subjects and supersede differences of faith, ethnicity, and language" (Karpat, 2000, p. 6). Ottomanism became influential espe-

cially in the second half of the nineteenth century, when the ruling Ottoman elites decided to base the state on a broader foundation to transform the population into an Ottoman nation and help the population identify with the state, thus securing subjects' loyalty and allegiance (Karpat, 2000).

Starting with the last quarter of the nineteenth century, the Ottoman elites, who had espoused Ottomanism in previous years, began to identify the state with Turks because of the changes in millets' attitudes toward the Empire as well as the Empire's worsening position in military conflicts (Karpat, 2000). The modern press, education, and the high judiciary began to use Turkish as the medium of communication, which increased the visibility of Turks as the masters of the state. In the following years, the emphasis on Turkishness as the main constitutive identity in Ottoman society led to attempts to search for the Turkish origins of the early Ottoman state (Karpat, 2000). They resulted in various establishments, such as the Ottoman History Committee, which later evolved into Turk Tarih Kurumu (Turkish History Society). Ottomanism, which was still the official ideology of the state, turned out to be a disguised form of Turkishness, despite its original intention (Karpat, 2000). That is, the understanding of Ottomanism came close to the Turkification of non-Turkish elements in the Empire and the Turkification of the Ottoman history was one of the indicators of this change.

The government of the Committee of Union and Progress (CUP) also supported the development of ethnic consciousness among Turks as soon as it came to power in 1908 (Göçek, 2002). Although the CUP avoided adopting Turkish nationalism as an exclusive ideology once it came to power, it did so after the Balkan Wars, which caused many territorial and human losses (Cagaptay, 2006). The ruling elite, including army officers, intellectuals, and bureaucrats, lost its belief in a multi-ethnic and multi-religious empire. For example, in 1913, the CUP declared Turkish to be the medium of education in the Empire's high schools and required all the community schools of non-Muslims to have a Turkish subject (Cagaptay, 2006). However, Ergin (2017) suggests that the CUP was committed to both Ottomanism and Islamism to maintain the allegiance of Muslim and non-Muslim populations. Therefore, the CUP's policies were aiming centralization, standardization, and rationalization rather than Turkification (Kayali, 1997; Eissenstat, 2002). Similarly, Karpat (2000) suggests that the Ottoman state tried to keep Turkism as the formal ideology of the state while maintaining Ottomanism and Islamism. As Ergin (2017) suggests, the boundaries between these three ideologies were not clear-cut and even the most enthusiastic Turkist hesitated to ignore Ottomanism and Islamism as viable options for the Empire.

### Turkish Nationalism During the 1930s and Anthony Smith's Theory on Nations

After the Turkish Republic was established in 1923, Turkish nationalism, along with secularism and Westernization, became the dominant ideology of the state (Cagaptay, 2006). However, the manner in which nationalism was framed during the 1930s was influenced by the Ottoman legacy. The millet system shaped the historical consciousness of the Ottoman Empire in such a way that concepts such as homeland and nation were not well developed. The officials of the Empire were more inclined to act according to the principle of universality and espoused more cosmopolitan ideologies because they governed a multi-national state (Akçam, 2002). This caused Turkish nationalism to arrive late to the scene in terms of history (Akçam, 2002). Questions such as "What is Turkish nationalism?" or "What should Turkish nationalism look like?' were raised very late in Turkish history. This feeling of being late resulted in a rush to fill the gap in Turkish nationalism, which in turn resulted in the defining of the Turkish nation in terms of a Turkish ethnic core (Akçam, 2002). In other words, although Turkish nationalism emerged in the last decades of the nineteenth century, Turkishness as an ethnicity was strongly emphasized during the Republican era, which also determined the relationship between the newly established Turkish state and the minorities (Cagaptay, 2006).

Akçam (2002) suggests that the military defeats in the last decades of the Empire also shaped Turkish nationalism during the 1930s. Accordingly, "the syndrome of not being understood and loneliness" created a general tendency to yearn for the past. It was claimed that Turks were superior to the West; bringing back this superiority was established as the main national goal of the new Turkish state. That is, a return to the Golden Ages was idealized and sanctified. The Turkish History Thesis was one of the consequences of this yearning for the ancient history of Turkish "ethnicity," which had the potential to compensate for the military failures in the late Ottoman Empire. In other words, the goal was to create a Turkish nation whose members did not have a feeling of inferiority but, rather, were proud of their past. It was achieved not only through the selective use of the ethnic past but also by fabricating a glorious past that would have been incorporated into the nation's official history.

Based on these general characteristics of Turkish nationalism during the 1930s, I argue that the creation of the Turkish nation in this period might be accounted for by Anthony Smith's theory of nation and nationalism. For what happened during that time exemplifies the link between Turkish *ethnie* (in the sense of the term used by Smith) and the modern Turkish nation. Smith (1989) defines *ethnies* as communities with a set of

origin myths, historical memories of shared experiences, a culture (language, customs, or religion), and a sense of solidarity among members. He defines the nation as a "named and self-defined community whose members cultivate common myths, memories, symbols, and values, possess and disseminate a distinctive public culture, reside in and identify with a historic homeland, and create and disseminate common laws, and shared customs" (Smith, 2005, p. 97). According to Smith (2005), to transform an *ethnie* into a modern nation, nation-builders utilize the cultural characteristics of *ethnies*. Smith (2005) points out the necessity of four main processes for the creation of nations: (1) a growing sense of identity among the population, which reinforces the differentiation between us and them and creates a progressive understanding of who they are; (2) the creation of myths, memories, values, traditions, and symbols, which, over time, form the cultural heritage of the community and mark it out from those outside its boundaries; (3) territorialization through which collective attachments to a historical territory or ancestral homeland in a collectivity are created; and (4) the creation and dissemination of a distinctive public culture of shared traditions, values, symbols, and knowledge to the members of the community.

Therefore, one of the most important linkages between *ethnies* and nations is the discovery or appropriation of ethnic history by priests, scribes, or intellectuals (Smith, 2005). During the formation of nations, a passion for tracing the origins to discover the true identity becomes widespread among the nation-builders and the roots of this unique identity are seen as residing in the origins and genealogy of the nation in concern (Smith, 2005). This is a requirement for being a nation, as to claim the new status of the nation, the community's spokesperson must advance a case based on the conviction that the nation has an ethnic ancestry and a common history (Smith, 2005).

The most effective way to utilize the ethnic past is to create or discover symbolic elements such as memories and myths of the ethnic past that are crucial for territorial claims and national solidarity (Smith, 2005). Smith (2005) suggests that, in their use for the creation of a nation, memories might be even sacralized. This sacralization can take several forms. It might be a defense of a sacred realm, conquest, or conversion of the heathen, and a provision of an example. Furthermore, various myths, such as a myth of territory and migration (Smith, 2005), a myth of ancestry, a myth of a heroic age, a myth of decline, and a myth of regeneration, are selected or created to solidify the nation (Smith, 2005). However, the manner in which the nations choose from among various memories is not very objective. The most memorable of these myths come from the periods during which the ethnic group out of which the nation-builders are trying to create

a nation had a great past. Thus, the past of the nation is idealized (Smith, 2005). In other words, while determining what should be remembered and what should be forgotten, the nation-builders manipulate memory during the creation of national narratives.

## Turkish History Thesis

What happened during the 1930s in Turkey is a good example of how *ethnies* are transformed into nations. By manipulating the memory of the nation and constructing a national/historical myth, the founders of the Republic drew the cultural and political framework through which the nation would remember its past. As Boyarin (1994, pp. 15-16) suggests, "statist ideologies involve a particularly potent manipulation of dimensionalities of space and time, invoking rhetorically fixed national identities to legitimate their monopoly on administrative control." Having built upon the demise of the multi-ethnic Ottoman Empire, Turkish nationalism during the 1930s tried to temporally and spatially fix the Turkish identity in an ancient community of Turks which, based on Smith's definition of the term, I identify as a Turkish *ethnie*.

The new government's program in 1931 is a very good indicator of a new period for Turkish nationalism. This party program defined nation as follows: a social and political community of citizens connected to one another through language, culture, and ideals (Cagaptay, 2006). Being a Turk, in other words, was defined primarily as a cultural-linguistic phenomenon and then voluntaristic in nature (Cagaptay, 2006). One can see himself/herself as a Turk after one learns the language and adopts the Turkish culture. This was a part of the Republican project to create a Turkish national culture whose main component was language as one of the shared symbols of the nation. This emphasis on Turkish as the language of the nation is aimed at creating a common or "public culture" as defined by Smith. By excluding other languages from the national project, Republicans transformed Turkish culture into the defining feature of the Turkish nation. This project, however, resulted in the cultural and political exclusion of many other ethnic and religious groups from the newly emerging Turkish nation.

Another point that this program emphasized was the need to teach the ancient history of Turks to the nation. With this goal in mind, the Turkish History Thesis was created during the 1930s by Türk Ocakları Türk Tarihi Tetkik Heyeti – TOTTTH (Turkish Hearths' Committee for the Study of Turkish History), which was established by the Turkish Hearths in 1930. TOTTTH consisted of prominent historians, intellectuals, and ideologues of the new state (Cagaptay, 2006). TOTTTH later continued under the name of Türk Tarihini Tetkik Heyeti – TTTH (Society for the Study of

Turkish History). Atatürk dictated a program for TTTH to Afet İnan, who was one of the central figures in the development of Kemalist history writing. Accordingly, the duty of TTTH was to disseminate Turkish national history "to its real owners, the Turkish people" (Cagaptay, 2006, p. 50). This would be accomplished with the supervision of government authorities as well as with the constant propaganda of the Republican People's Party. The General Directorate of Press would also help TTTH fulfill its mission by supervising the daily newspapers and magazines in disseminating knowledge that the organization produced (Cagaptay, 2006).

Members of TTTH were simultaneously representatives in the Turkish Grand National Assembly who were appointed by Atatürk (Beşikçi, 1986). This close affiliation between politics and TTTH indicates that Turkish history writing developed under the supervision of state organizations. The state supervised and controlled the historical research that should have been conducted along the lines of the national ideology. The state dictated the findings of this research. Thus, rather than being objective, historical research in this period began with some premises that should have been verified through ostensibly scientific investigation of the past. The goal, as I mentioned above, was to construct the Turkish nation around the idea of a glorious Turkish past.

This reconstruction of history during this period was evident in the works produced by TTTH. Towards the end of the year 1930, TTTH published a book titled 'Main Themes of Turkish History.' The general characteristics of the Turkish History Thesis became clear in this book and might be summarized as follows:

Starting with the ancient times, massive migrations took place from Central Asia to the East, West, and South because of the drought and [various] economic reasons. These immigrants were Turkish-speaking people. They took an advanced civilization to the places they migrated. [Therefore] people who established the civilization in Mesopotamia, Egypt, Anatolia, China, Crete, India, Aegean, and Rome are those immigrants, who were Turks. These Turkish-speaking people played a primary role in the foundation and development of the civilizations in the world (quoted in Beşikçi, 1986, p. 20).

As Smith suggests, the search for an authentic identity and history of the Turks with which to construct the Turkish nation led the Republicans to use the ancient past, according to the Turkish History Thesis, a period during which Turks disseminated their civilization to the world. However, these arguments were mostly fabrications rather than historical realities. That is, they were invented by the social scientists who worked under the

service of the Republican regime. These arguments were a kind of myth-ification of Turkish history, which was necessary to provide the society with a meaning constructed around the idea of being a glorious nation. As Smith (1999) suggests, the invention of a glorious past is one of the ways in which national consciousness and national solidarity are cultivated. In the Turkish case, the mythification of history was a claim for the existence of a Turkish ethnicity even in the ancient past to justify the cultural and political existence of the newly emerging Turkish nation.

Another reason for the mythification of an ancient Turkish history was to reverse the prevalent negative view of the Turks. Indeed, in the preface of the book, the authors stated that the book's purpose is to correct false perceptions about the Turks:

(By correcting these mistakes) We would like to open the road that goes to the depths of our nation's creative capabilities, to uncover the secrets of Turkish genius and character, to show the specialty and strength of Turks to themselves, and to declare that our national progress is linked to deep racial roots (quoted in Ergin, 2017, p. 143).

As Ergin (2017) suggests, this book's claims became the basis of Turk-ish history writing in the following periods that glorified the ancient histo-ry of the Turks. This perception was also incorporated into the textbooks used at different levels of education. The argument was that Turks were exceptional in the past and had maintained their characteristics since then. For example, a history book written for elementary schools in 1934 defined Turks as follows:

Turks who shaped the most important events of the world are the ethnic group which preserved their self most among other groups. Even though Turks …… in the large countries into which they spread were mixed with other groups, they did not lose their ethnic characteristics (Copeaux, 1998, p. 42).

"Main Themes of Turkish History" was followed by other books, such as Tarih I, Tarihten Evvelki Zamanlar (History I, Times Before the His-tory), Tarih II, Ortazamanlar (History II, Middle Times), Tarih III, Yeni ve Yakın Zamanlarda Osmanlı-Türk Tarihi (History III, Ottoman Turkish History in New and Near Times), and Tarih IV, Türkiye Cumhuriyeti (His-tory IV, Turkish Republic) (Beşikçi, 1986). The prefaces of these books stated that the main goal was to radically attack the movement aimed at erasing the word "Türk" from people's minds (Beşikçi, 1986). In other words, these books, in which different phases of Turkish history were glo-rified, were a response especially to those who viewed the Turkish nation as inferior because of its failures in the recent past.

In 1932, TTTH organized the First Turkish History Congress. The fact that the main

delegates of the conference were high school and secondary school teachers was important in terms of showing the conference's goal: to train teachers on the teaching of history (Cagaptay, 2006). The founders of the Republic considered education to be a tool through which a new national history could be disseminated to society. During the First Turkish History Congress, the delegates discussed the history of Turkish civilization, the anthropological characteristics of the Turkish ethnicity, and the Turkish language (Cagaptay, 2006). Therefore, this congress was a very important moment in the development of the Turkish History Thesis. The glorious Turkish history was emphasized as the defining feature of Turkishness. One of the presenters, for example, defined "Turk" as follows: "A brave, heroic race of forty million that has inhabited Asia, and spread into Europe and Africa to conquer the world" (Cagaptay, 2006, p. 51). This was the main premise of the Turkish History Thesis that would have been expanded in the following periods.

During the congress, there was an emphasis on the importance of anthropological research to reveal the physical and cultural characteristics of Turks. Ergin (2017) suggests that the First History Congress was one of the earliest attempts of the government to codify the anthropometric project at the scholarly level. The foundation of the Faculty of Language, History and Geography was a signal of the relationship between the anthropometric project and academic establishment. Along these lines, during the congress, Afet Inan, one of the ideologues of the Turkish History Thesis, referred to three goals: (1) to investigate the main sources of Turkish history, (2) to obtain new knowledge with the help of anthropology, and (3) to demonstrate the ethnic characteristics of Turks in both the past and the present using anthropological methods (Ergin, 2017).

As I mentioned previously, one of the arguments of the Turkish History Thesis was that Turks civilized many places in the world, especially those around Central Asia. Presenters at the congress even claimed that European civilization, too, were created by Turks and the presenters used anthropological evidence to support their arguments. For example, in his presentation, Şevket Aziz Bey suggested the following:

When I started my first anthropological research in 1929, I measured the skulls of 25 Turkish women and 25 Turkish men. I then wanted to compare these measures with those of French (quoted in Beşikçi, 1986, p. 102).

After reporting that the Turks and French have the same skull measures, he said:

Where does this European type come from? Are you going to relate it to Europe? Let me give the answer without any hesitation: Europe is dependent on us (quoted in Beşikçi, 1986, p. 102).

To revive the ethnic roots of Turks for use in crafting the Turkish nation, presenters also emphasized that Turks forgot their actual ethnic roots after they left Central Asia and established great civilizations in different places throughout the world:

Those who went to India could not remember where they came from. Those who went to Iran realized their initial country in an unknown distance (quoted in Beşikçi, 1986, p. 96).

The same forgetting patterns were attributed to Kurds to indicate the ethnic similarity or the sameness of the Kurds to the Turks. Accordingly, Kurds were Turks in essence but they had forgotten their identity for various reasons and had become Kurds. Reminding both Turks and Kurds about their real ethnic roots was set as a goal for the Republican project of creating a Turkish nation. However, for the Kurds, assimilation into Turkishness meant a denial of their Kurdishness.

Many presenters also indicated that Islam was an important factor in this forgetting. Especially in the Ottoman Empire, being a Muslim became the defining feature of Turkishness. The necessity of eliminating Islam from the definition of Turkishness was related to the goal of constructing a secular national identity. In other words, the adoption of secularism as the defining feature of the Turkish Republic was also decisive in establishing the definition of the Turkish nation and nationalism in ethnic terms. During the creation of the Turkish nation, secularism reinforced the emphasis on ethnic components which would have severed the connection between being a Turk and being a Muslim. This removal of Islam, however, created a gap in Turkish nationalism—a gap filled with the idea that Turks were great before they adopted Islam (Poulton, 1997).

The First History Congress ended with the acceptance of the Turkish History Thesis and the construction of Turkishness as an ethnic category (Pulton, 1997). Accordingly, Turks were always civilized and had established the first civilizations in various places throughout the world. Furthermore, Turkish history was not limited to the Ottoman period. Before the Ottoman Empire, Turks established great states—such as Gokturks, Uygurs, and Karahanli—in Central Asia, and it was claimed that the modern Turks in Anatolia were the inheritors of these ancient inhabitants of Central Asia. Therefore, when seeking a territory where they could locate the Turkish nation, early Republicans claimed Anatolia as the homeland of the modern Turks. To do so, nation-builders had to prove the affiliation

between modern and ancient Turks, which was achieved by emphasizing the purity of the Turks. For example, it was suggested, "although Turks had crossed with other racial groups since their emigration from Central Asia, language had preserved their memories, cultural characteristics and everything that made them a nation, including their most cherished possession, the Turkish intellect" (Cagaptay, 2006, p. 52).

Once the general framework of the Turkish History Thesis was drawn, the next step was to publicize its main principles through various public performances and literature. For example, historical knowledge based on the Turkish History Thesis emerged as the main themes of Turkish plays and poems (Beşikçi, 1986). In one of his plays, Faruk Nafiz Camlibel, a Turkish poet and playwright, described the immigration of Turks from Central Asia (Beşikçi, 1986). The plays were staged in Anatolia by the People's Houses upon the request of the RPP. These plays and poems, with many ethnic elements, were used to inculcate a national culture in people. This process was a good example of the dissemination, in the nation-building process, of a public culture centered on certain symbols and knowledge.

The First History Congress was followed by the Second Turkish History Congress in 1937. Similar to the first one, this congress maintained the goal of scientifically proving the arguments of the Turkish History Thesis. One of the most interesting moments of this congress was when the presenters established a connection between Islam and Turkishness, though the previous congress had attempted to sever the very same connection. A presenter at the congress argued that one of the wives of Prophet Mohammed was Turk; her name was Marye and they had a son (Beşikçi, 1986). The relationship between the Turks and the most important person of Islam was presented as the penetration of Turks even into early periods of Islam. It was further claimed that the Koran contained some Turkish words and that the Prophet had once written a letter in Turkish (Beşikçi, 1986).

Compared to the first congress, the Second History Congress placed more emphasis on the findings of so-called anthropological investigations that revealed physical and cultural characteristics exclusive to Turks. For example, in 1937 a group of scholars conducted very detailed survey research and revealed the physical characteristics of Turks (Beşikçi, 1986). Along with the general features of the Turkish History Thesis, this research maintained a hypothesis that scholars attempted to "prove" through so-called anthropological investigation. The hypothesis was that all people had been Turks in Anatolia. To prove this hypothesis, anthropologists and historians compared the results of this survey, which seemingly revealed the general physical characteristics of Turks, to anthropological excavations in Anatolia. Based on the similarities between the findings, the re-

searchers concluded that the main inhabitants of Anatolia had always been Turks (Beşikçi, 1986). According to this argument, Hitits, for example, were Turks. Furthermore, they argued that people who lived in Anatolia, including Armenians, whether or not they spoke Turkish, were Turks. The gist of all these arguments was that Turks had inhabited Anatolia since ancient times (Cagaptay, 2006). This identification of Anatolia as the homeland of the modern Turkish nation was an example of the territorialization required for the process of nation-building.

The presenters sometimes made racial arguments asserting the existence of certain biological features that belonged exclusively to Turks. For example, there were presentations about the most common blood groups and fingerprints among Turks. In his presentation entitled "Research on the Biology of Turkish Race: Blood Types and Fingerprints," Assoc. Prof. Sadi Irmak pointed out the blood types and fingerprints that were the main determinants of a race (Cagaptay, 2003). He claimed that Turks were different from the people of Southern Asia and the Near East and that they were more similar to the people of Southern Europe. He also emphasized the purity of Turkish people by mentioning the high frequency of Type A blood among Turks, indicating that Turks mixed less with other races than did the Europeans (Cagaptay, 2003).

## Sun Language Theory

In Smith's theory of nations and nationalism, language is a very important component of the transformation of an *ethnie* to a modern nation, as language constitutes the public culture of the nation by creating a common medium of communication. Nation-builders in Turkey during the 1930s, too, identified a language for the newly emerging Turkish nation. To do so, as they did during the creation of the Turkish History Thesis, they used the ethnic history of the Turks. The Sun Language Theory was an extension of the Turkish History Thesis. A US diplomatic note touched upon the link between the history and language congresses organized during this period:

Namely, both the history and language congresses tended to prove the potency and historical significance in ancient times, the decline under the influence of foreign factors and elements and, finally the renaissance under the Republican regime of Turkish people and language respectively (quoted in Cagaptay, 2006, p. 54).

Parallel to TTTH, Turk Dili Tetkik Heyeti (Society for the Study of Turkish Language) —TDTH— was established during the First History Congress in 1932. The goal of this organization was to investigate the structure and development of the Turkish language and its relationship to

other languages. The main goal was "to bring out the genuine beauty and richness of the Turkish language and elevate it to the high rank it deserves among world languages" (Cagaptay, 2006, p. 54). The First Turkish Language Congress was held by TDTH in 1932. Similar to the history congresses, many schoolteachers attended this congress. The presentations' main argument was that the current unfavorable situation of the Turkish language was a consequence of Islam's negative impact on Turkish during the time of the Ottoman Empire (Cagaptay, 2006). The suggested reform was the purification of the Turkish language through the elimination of Arabic and Persian words. The first signal of this reform was that TTTH changed its name. The words tetkik (investigation, study) and heyet (society), which were both Arabic, were changed to the Turkish "araştırma" and "kurum," respectively (Cagaptay, 2006). This was followed by the replacement of other Arabic and Persian words with Turkish words. These Turkish words were gathered by either collecting words from a spoken language considered to be the real Turkish or coining new words.

The First Turkish Language Congress was followed by the Second Turkish Language Congress in 1934 and the Third Turkish Language Congress in 1936. The presenters at these congresses, too, emphasized the idea that Turks forgot their pre-Islamic greatness because Islam imposed an alien culture on them. Again, the need for purification was emphasized to remind Turks of their authentic language. For example, words such as sulh (peace), harb (war), milli (national), and müessese (institution) were replaced by barış, savaş, ulusal, and kurum, respectively (Cagaptay, 2006).

The Sun Language Theory was developed during the Third Turkish Language Congress in 1936 (Beşikçi, 1986). According to this theory, Turkish was the mother of many other languages, as it was the oldest and most supreme language in the world. The reason suggested for the superiority of the Turkish language was that the first community in the world that felt the necessity of a language was the Turks (Cagaptay, 2006). In other words, as an extension of the Turkish History Thesis, a myth was created around the Turkish language. According to the Sun Language Theory, Turks produced their first words to describe the sun because they were sun worshippers (Copeaux, 1998). This theory was therefore called the Sun Language Theory. As Turks migrated from Central Asia and developed civilizations in different parts of the world, they created various languages whose roots were found in the Turkish spoken in Central Asia. This argument implied that other languages emerged from the sun language that the ancient Turks had created. Along these lines, presenters also established similarities between Turkish and other languages. They used these similarities to support the argument that many other ethnic groups in Anatolia were Turks. Referring to the similarities between the Kurdish and Turkish

vocabularies, Kadri Kemal Top, for example, argued that Kurds and Turks came from the same cultural and historical roots (Copeaux, 1998).

**CONCLUSION**

In this paper, drawing on Anthony Smith's argument that modern nations are rooted in *ethnies,* I investigated the construction of the Turkish nation during the 1930s. Smith (2005) suggests that nation-builders utilize certain cultural and historical characteristics of *ethnies* to create modern nations through four processes—self-definition, territorialization, the creation of myths and memories, and the definition of a public culture. All these processes were at work during the construction of the Turkish nation during the 1930s. The Turkish History Thesis and the Sun Language Theory are good examples of how ethnic characteristics of a community are transformed into a modern nation through territorialization and the creation of a public culture based on certain myths of an ethnic group. Similar to what Smith (1999, 2005) describes in his argument that the most effective way to utilize the ethnic past is to create or discover symbolic elements such as memories and myths of ethnic groups that are crucial to territorial claims and national solidarity, the nation-builders of the Turkish Republic in the 1930s relied mainly on two myths while creating these two theories: Turks created all civilizations in the world and Turkish was the first and best language in the world. Though they claimed that they had relied on scientific realities, many of these arguments were fabrications that the nation-builders created so that they could make certain claims for the newly emerging nation-state. The first thing they needed was a territory for the nation. They identified Central Asia as the main homeland of the ancient Turks, which enabled them to constitute the ethnic roots of the Turkish nation. In addition, the nation-builders needed a language that would have provided a standardization of communication in the nation. To that end, they identified Turkish—more specifically, the pure Turkish whose main roots could be found in the ancient Turkish spoken in Central Asia—as the nation's language.

There are various reasons why there was a strong emphasis on ethnic components during the creation of the Turkish nation in the 1930s. First, having inherited an Ottoman community in which national consciousness was not well-developed due to the multi-ethnic and multi-religious structure of the Empire, the founders of the Republic searched for new ways to inculcate a national consciousness in people. Instead of using more civic and political methods to transform the post-Ottoman community into a Turkish nation, they relied on ethnic components, which, they thought, would have allowed them to transform people's ways of thinking about their communities in a more radical fashion. Therefore, Turkish national-

ism in this period might be identified as ethnic and cultural—rather than civic and liberal—in nature. Second, the emergence of Turkish nationalism followed a period during which uprooting and emigration were widespread among both Muslim and non-Muslim communities because of wars and forced migration. Turkish nationalism during the 1930s therefore emerged in a social and historical context in which there was a need for new meanings and values that could create a sense of solidarity and belonging in people who had lost their social and cultural connections to their community due to the wars and other cultural and political changes. Third, the creation of the Turkish nation was part of a secular modernization project of the new state. Defining Turkishness strictly based on the ethnic characteristics of ancient Turks, instead of utilizing a broader and more inclusive cultural framework that would have also included religion, enabled the nation-builders to disregard Islam, which had been a central element of Turkish culture during the Ottoman Empire.

# REFERENCES

Akçam, T. (2002). "Türk ulusal kimliği üzerine bazı tezler (Some thesis on Turkish national identity)." In M. Gültekin & T. Bora (Eds.), *Milliyetçilik (Nationalism)* (pp. 53-62). İstanbul: İletişim Yayınları.

Anderson, B. (1991). *Imagined communities*. New York: Verso.

Beşikçi, İ. (1986). *Türk-Tarih Tezi, Güneş-Dil Teorisi ve Kürt sorunu (Turkish History Thesis, Sun Language Theory and Kurdish problem)*. Stockholm: Denge Komal.

Brubaker, R. (1992). *Citizenship and nationhood in France and Germany*. Harvard University Press.

Cagaptay, S. (2003). *Crafting the Turkish nation: Kemalism and Turkish nationalism in the 1930s.* Unpublished PhD Dissertation. Yale University.

Cagaptay, S. (2006). *Islam, secularism, and nationalism in modern Turkey: Who is a Turk?* New York: Routledge.

Copeaux, E. (1998). *Tarih ders kitaplarında (1931-1993) Türk Tarih Tezinden Türk İslam* Sentezine (From Turkish History Thesis to Turkish-Islam Synthesis in textbooks *(1931-1993).* İstanbul: Tarih Vakfı Yurt Yayınları.

Davison, R. H. (1954). Turkish attitudes concerning Christian—Muslim equality in the nineteenth century. *American Historical Review*, *59*(4), 844–864.

Eissenstat, H. (2002). "Turkic immigrants/Turkish nationalism: Opportunities and limitations of a nationalism in exile." *The Turkish Studies Association Buletin*, *25–26*(1–2): 25–50.

Ergin, M. (2017). "*Is the Turk a white man?": Race and modernity in the making of Turkish identity*. Leiden: Brill.

Gellner, E. (1997). *Nations and nationalism*. NY: New York University Press

Göçek, F. M. (2002). "Osmanlı Devleti'nde Türk milliyetçiliğinin oluşumu: Sosyolojik bir yaklaşım (Emergence of Turkish nationalism in the Ottoman State: A sociological approach)." In M. Gültekin & T. Bora (Eds.), *Milliyetçilik (Nationalism)* (pp. 63-76). İstanbul: İletişim Yayınları.

Hobsbowm, E. (1989). "Introduction: Inventing Traditions." In E. Hobsbawm & T. Ranger (Eds.), *The invention of tradition* (pp. 1-14). Cambridge: Cambridge University Press.

Karpat, K. (1982). "Millets and nationality: The roots of the incongruity of nation and state in the post-Ottoman Era." In B. Braude & B. Lewis (Eds.), *Christians and Jews in the Ottoman Empire* (pp. 141-169). New York: Holmes and Meier Publishers, Inc.

Karpat, K. (2000). "Historical continutiy and identity change or how to be modern Muslim, Ottoman, and Turk." In K. Karpat (Ed.), *Ottoman past and today's Turkey* (pp. 1-28). Leiden: Brill.

Kayali, H. (1997). *Arabs and Young Turks: Ottomanism, Arabism, and Islamism in the Ottoman Empire, 1908–1918.* Berkeley: University of California Press.

Kohn, H. (1994). "Western and eastern nationalism." In J. Hutchinson & A. Smith (Eds.), *Nationalism* (pp. 162-165). Oxford: Oxford University Press.

Kuzio, T. (2002). "The myth of the civic state: A critical survey of Hans Kohn's framework for understanding nationalism." *Ethnic and Racial Studies, 25*(1): 20-39.

Mardin, S. (2004). "Religion and secularization in Turkey." In A. Hourani, P. Khoury, & M. C. Wilson (Eds.), *The modern Middle East* (pp. 347-374). New York: I.B.Tauris.

Poulton, H. (1997). *Top hat, grey wolf and crescent: Turkish nationalism and the Turkish Republic.* New York: New York University Press.

Shils, E. (1957). "Primordial, personal, sacred and civil ties: Some particular observations on the relationships of sociological research and theory." *British Journal of Sociology, 8*(2): 130-145.

Smith, A. (1989). "The origins of nations." *Ethnic and Racial Studies*, *12*(3): 340-367.

Smith, A. (1999). *Myths and memories of the nation*. Oxford: Oxford University Press.

Smith, A. (2005). "The genealogy of nations: An ethno-symbolic approach." In A. Ichijo & G Uzelac (Eds.), *When is the nation? Towards an understanding of theories of nationalism* (pp. 94-112). New York: Routledge.

Van Den Berghe, P. (1994). "A socio-biological perspective," In J. Hutchinson & A. Smith (Eds.), *Nationalism* (pp. 96-103). Oxford: Oxford University Press.

Yack, B. (1999). "The myth of the civic nation." In R. Beiner (Ed.), *Theorizing nationalism* (pp.103-118). Albany: State University of New York Press.

Yapp, M.E. (1987). *The making of the modern Middle East: 1792-1923*. London: Longman.

# IDENTIFYING THE SUPERIOR GARCH MODELS THROUGH MODEL CONFIDENCE SET PROCEDURE

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## 1. INTRODUCTION

The modelling and forecasting of the volatility of the stock markets has been a topic of great interest in the world of finance. Today, volatility is a fundamental issue in contemporary financial markets as it is extremely important for decision making in portfolio management, the valuation of options and financial assets. Reliable volatility forecasting has been the main concern of financial institutions.

In line with a better understanding of what makes it difficult to obtain better forecasts, the tendency of volatility to cluster can be explained by the GARCH(p,q) model proposed by Bollerslev (1986). The most outstanding drawback of the GARCH(p,q) model is that it cannot capture the asymmetric effects. Therefore, there are many asymmetric GARCH models which are employed to test the impact of bad or good news on volatility. In terms of the forecasting performance of the symmetric or asymmetric GARCH models based on normal distribution for error, many varied GARCH models have been proposed in the literature, but there is uncertainty regarding whether the asymmetric GARCH models lead to better forecasts than the symmetric GARCH models, or whether the usage of the symmetric or asymmetric GARCH models based on different distribution assumptions contributes to the accuracy of forecasts.

The motivation of the study was threefold: (1) we employ eleven GARCH models such as, sGARCH, EGARCH, GJR-GARCH, APGARCH, IGARCH, csGARCH, FIGARCH, AVGARCH, TGARCH, NGARCH and NAGARCH to produce better forecasts, (2) we use ten different distributions, such as normal (norm), generalized error distribution (ged), student t-distribution (std), skewed normal distribution (snorm), skewed generalized error distribution (sged), skewed student t-distribution (sstd), generalized hyperbolic distribution (ghyp), normal inverse gaussian distribution (nig), generalized hyperbolic student t-distribution (ghst) and Johnson's Su distribution (jsu), and (3) we propose a process for the model and the distribution by using a fair selection platform which is named 'model confidence set'.

In this study, we aim to provide an empirical foundation for a better understanding of the ability of different GARCH models with different distributions in terms of out-of-sample forecasting perfor-

mance. This paper is organized as follows: Section 2 contains the literature review. In Section 3, we speak about the methodology and present datasets. In Section 4, the empirical results are discussed. Finally, in Section 5, conclusions are listed.

## 2. LITERATURE REVIEW

In the literature, a great number of studies argue that the class of GARCH models under different distributions perform various forecasting performances. Some studies focus on analysing the symmetric effects; other studies focus on the asymmetric effects on volatility. The idea behind using other distributions, unlike normal distribution, is based on the fact that financial time series rarely follow a normal distribution, but show heavy-tail characteristics.

One way to model volatility is to use the autoregressive conditional heteroscedasticity (ARCH) model by Engle (1982). Another, more subtle, way is to use the generalized autoregressive conditional heteroscedasticity (GARCH) model proposed independently by Bollerslev (1986) and Taylor (1986). Vlaar (2000) used a fair platform to test the GARCH model by using different distribution assumptions. He concluded that the GARCH model under normal distribution outperformed the others. Other studies, which evaluated the forecasting performances of GARCH models under heavy-tailed distributions, reported that leptokurtic distributions provide better forecasting results (Angelidis et al., 2004; Harmantzis *et al.*, 2006; Hung et al., 2008; Lee *et al.*, 2008; Braione and Scholtes, 2016).

However, the most important disadvantage of using the GARCH model is that there is a non-negativity parameter restriction in the model. It is well known that good and bad news of the same magnitude have different effects on volatility. To overcome this issue, the asymmetric GARCH models were proposed to capture leverage effect. While some studies indicated that the EGARCH model is superior among the asymmetric GARCH models (Pagan and Schwert, 1990; Lee, 1991; Cao and Tsay, 1992; Kat and Heynen, 1994), it is not surprising that the different studies in volatility modelling suggested that the GJR-GARCH model outperformed the others (Brailsford and Faff, 1996; Taylor, 2004). Shamiri and Isa (2009) compared the symmetric and the asymmetric GARCH models under various distribution assumptions in terms of forecasting volatility, and stated that the choice of distribution is more important than the choice of the GARCH models to obtain better forecasts. Miron and Tudor (2010) studied asymmetric GARCH models by using stock indices from the US and Romania, concluding that the EGARCH model was superior to the other models, the PGARCH and TGARCH. Vijayalakshmi and Gaur (2013) em-

ployed eight different models to forecast volatility in Indian and foreign stock markets, which revealed that the TARCH and the PARCH models lead to better forecasting results. Brownlees and Engle (2016) also used the GJR-GARCH model to forecast volatility and measure systematic risk.

The starting point for any forecasting study should be the question: which volatility models, such as symmetric or asymmetric GARCH models under different distributions, can produce a better forecasting performance? This question inevitably raises additional questions, such as which algorithm should be chosen to determine the set of the best models. In light of these questions, the model confidence set (MCS) procedure was proposed by Hansen et al. (2011) to determine the best sets of models of different modelling techniques by using a loss function criterion. Song (2014) used this MCS procedure for modelling and forecasting volatility and found that the EGARCH model was superior. Caporale and Zekokh (2019) studied the modelling volatility of cryptocurrencies by using more than 100 GARCH models. The best model or superior set of models was chosen by not only backtesting Value-at-Risk (VaR) and Expected Shortfall (ES), but also MCS procedure. They concluded that the forecasting performance of the mixed GARCH models overwhelmed any forecasting performance of GARCH models according to the VaR, ES and MSC. Choudhry et al. (2019) forecast the daily dynamic hedge ratios by employing seven different versions of the GARCH model, and their results showed that MCS models provided the most accurate forecasts in five cases.

## 3. DATA AND MODELS

This study utilises volatility modelling techniques by using various GARCH models under different distributions to evaluate which model makes a better contribution to forecast accuracy in terms of using model selection criteria (MSC). In total, 110 GARCH models, 11 models × ten distributions, are used to investigate which models, which distributions or which combination of two of these outperform the others statistically. For this purpose, three data sets are employed as a fair platform for comparison of each GARCH model forecasting performance.

### 3.1. Data

The data sets used are composed of the daily closing prices of exchange rates of Dollar/TL, Euro/TL, and BIST (Borsa Istanbul stock market) 100 index in the time interval spanning from January 4th 2010 to May 16th 2019, in sum, consisting of 2,356 data points. The return or price variation, , is calculated as below:

$$r_t = [\log(P_t) - \log(P_{t-1})] \times 100 \tag{1}$$

where $P_t$ denotes the daily closing price of the relevant series.

The plots of returns series are given in Figures 1-3. As can be seen, the returns for the BIST 100 are generally more volatile than the others, while the volatility of the exchange rates is on the rise lately. Table 1 reports the descriptive statistics of those series. As expected, the standard deviation of the BIST 100 index is higher. The value of the Jarque-Bera (JB) statistic indicates that distributions under investigation are not normal. The returns for two exchange rates are positively skewed, and their excess kurtosis means highly leptokurtic behaviour. For the BIST 100, the series is slightly negatively skewed and exhibits leptokurtic behaviour. Hence, the data sets at hand consist of different characteristics. Owing to the lack of serial correlation in the return series, there is no need to apply the ARMA filter to the data. Accordingly, the series is centred to have a mean of zero.

The reason for calling volatility a latent variable comes from the unobservable property it has. Therefore, a proxy is used to represent the true volatility. Following Perez-Cruz *et al.* (2003), we made use of the realised variance (RV) calculated as:

$$RV_t = \sqrt{\frac{1}{5}\sum_{k=0}^{4} r_{t-k}^2} \tag{2}$$
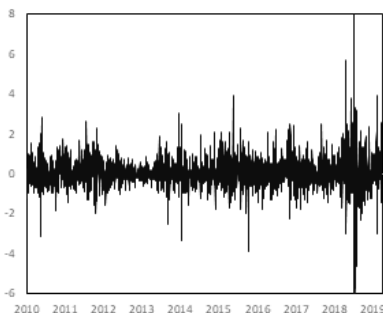


**Figure 1.** *Log returns data for Dollar*   **Figure 2.** *Log returns data for Euro*
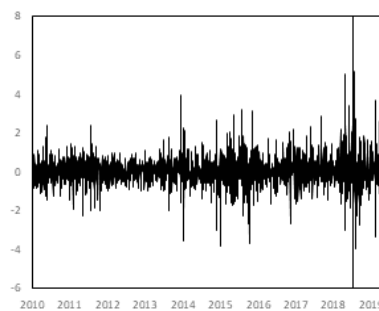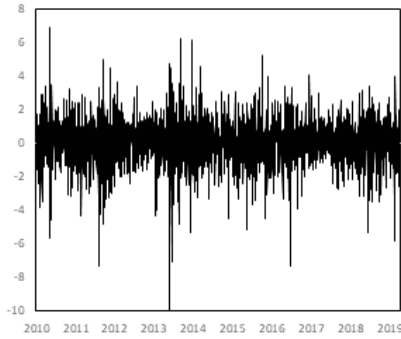
**Figure 3.** *Log returns data for BIST 100*

**Table 1.** *Descriptive statistics for the daily return series of the data sets.*

|          | Mean  | Median | Std. dev. | Min     | Max    | Skewness | Kurtosis | Normality |
|----------|-------|--------|-----------|---------|--------|----------|----------|-----------|
| Dollar   | 0.058 | 0.006  | 0.851     | -6.475  | 14.706 | 2.596    | 48.044   | 229653    |
| Euro     | 0.048 | 0.023  | 0.830     | -7.197  | 14.019 | 2.189    | 44.079   | 192971    |
| BIST 100 | 0.021 | 0.081  | 1.416     | -11.064 | 6.895  | -0.527   | 3.647    | 1418.6    |

In order to check the robustness of the analysis, we further divided the data sets into 7 subsamples. The in-sample data of the first subsample is from January 4th 2010 to July 28th 2016, and the next 100 observations from July 29th 2016 to December 22th 2016, consisting of 100 data points, are used as a test set. One-step ahead forecasts are obtained for the test set. Then, the in-sample and test data are moved by a length equal to 100 observations in time, and the second subsample is constructed in the same way, forming from May 26th 2010 to December 22th 2016 the in-sample, and from December 23th 2016 to May 12th 2017 the test set. The other sub-samples are constructed by moving fixed windows in the same manner. In other words, the moving rolling estimation procedure is utilised, and all the GARCH model combinations are re-estimated in every 100 time points, leading to seven refits over the time period covered by the analysis. After the mentioned GARCH models are fitted, their one-step-ahead forecasts are gathered to measure their performances on the test sets comprising of seven time periods with 100 test points. At this point, the MCS procedure based on these performances is utilised to identify the set formed of the statistically superior models. The next section discusses the models under investigation.

## 3.2. The Models

GARCH models are the most commonly used methods for volatility modelling and forecasting in finance or other related fields. In this study, we utilize eleven extensions of the GARCH family models. We introduce each of these models briefly below, setting out their formulation.

### 3.2.1. Standard GARCH model

The standard GARCH model (sGARCH) developed by Bollerslev (1986) is commonly used in modelling and forecasting financial time series instead of the ARCH model. In the sGARCH model, the conditional variance is a linear function of its own delays, and is represented in the following form:

$$h_t^2 = \alpha_0 + \sum_{j=1}^{q} \alpha_j \varepsilon_{t-j}^2 + \sum_{j=1}^{p} \beta_j h_{t-j}^2 \qquad (3)$$

The most widely used sGARCH model is the GARCH (1,1) model. The GARCH (1,1) model, that is, the situation in which $p = q = 1$, is very easy to implement. The GARCH (p,q) process is weak and stationary, if and only if, it fulfils the following condition:

$$\sum_{j=1}^{q} \alpha_j + \sum_{j=1}^{p} \beta_j < 1 \qquad (4)$$

### 3.2.2. EGARCH model

The EGARCH model, also known as asymmetric GARCH model, was introduced by Nelson (1991) to model return volatility in the stock market. The equation of the EGARCH model is represented as follows:

$$h_t^2 = \alpha_0 + \sum_{i=1}^{p} \alpha_i \frac{|\varepsilon_{t-i}| + \gamma_i \varepsilon_{t-i}}{\sigma_{t-i}} + \sum_{j=1}^{q} \beta_j h_{t-j}^2 \qquad (5)$$

The conditions in Equation (6) where the following equivalent requirements are satisfied.

$$h_t^2 = \log \sigma_t^2 \text{ or } \sigma_t^2 = e^{h_t^2} \qquad (6)$$

Depending on when the positive news comes out, which means $(1 + \gamma_i)|\varepsilon_{t-i}|$ is positive, the total effect of $\varepsilon_{t-i}$ is equal to.Conversely, when the negative news comes out, the total effect of $\varepsilon_{t-i}$ is equal to $(1 - \gamma_i)|\varepsilon_{t-i}|$. The negative news may have a greater effect on

volatility, in which case it is expected that $\gamma_i$ takes a negative value. The most important finding related to the EGARCH model shows that it provides a positive variance $\sigma_t^2$ without considering the parameters' estimations

### 3.2.3. IGARCH model

Many researchers in volatility literature have found from the empirical results of the sGARCH (1,1) model that the parameters being estimated are mostly $\beta_1 > 0.7$ or $\alpha_1 \approx 1 - \beta_1$. These results clearly highlight that the integrated GARCH (p,q) model can be a useful approximation for modelling volatility. The study by Bollerslev (1986) indicated that the sum of the parameters, $\alpha_i + \beta_j$, is equal to one in the IGARCH(p,q) model. The most important feature of the IGARCH model is that the effects of the lagged values of the square of shocks are continuous. The equation of the IGARCH (p,q) model is represented below:

$$\varepsilon_t = z_t h_t, \ \ h_t^2 = \alpha_0 + \sum_{i=1}^{p} \alpha_i \varepsilon_{t-i}^2 + \sum_{j=1}^{q} \beta_j h_{t-j}^2 \tag{7}$$

### 3.2.4. GJR-GARCH model

The GJR-GARCH model was introduced by Glosten, Jagannathan and Runkle (1993) to capture the leverage effect. In this model, the effects of the bad or good news on the volatility are taken into consideration by using a threshold value $a_{t-1}$ The representation of the GJR-GARCH(p,q) model is defined as follows:

$$h_t^2 = \alpha_0 + \sum_{i=1}^{p} \alpha_i \varepsilon_{t-i}^2 + \sum_{i=1}^{p} I(\varepsilon_{t-i}) \gamma_i \varepsilon_{t-i}^2 + \sum_{j=1}^{q} \beta_j h_{t-j}^2 \tag{8}$$

In Equation (8) if $\varepsilon_{t-i} < 0$, if , it means that $I(\varepsilon_{t-i}) = 1$. Inversely, when , $\varepsilon_{t-i} \geq 0$, then $I(\varepsilon_{t-i}) = 0$.

Stokes *et al.* (2005) point out that the GJR-GARCH model is a special case of the threshold GARCH (TGARCH) model.

### 3.2.5. TGARCH model

The TGARCH model was proposed by Rabemananjara and Zakoian (1993) and Zakoian (1994). It is similar to the GJR-GARCH

model. The only difference in the specification is that there is a standard deviation instead of the variance. The TGARCH(p,q) model specification is defined in Equation (9).

$$h_t = \alpha_0 + \sum_{i=1}^{p}(\alpha_i + \gamma_i I(a_{t-i}))\varepsilon_{t-i}^2 + \sum_{j=1}^{q}\beta_j h_{t-j} \tag{9}$$

In Equation (9), if $\varepsilon\_(t-i)<0$, if , it means that $I(\varepsilon\_(t-1))=1$. Inversely, when $\varepsilon\_(t-i)\geq0$, then $I(\varepsilon\_(t-1))=0$.

### 3.2.6. APARCH model

The APARCH model was proposed by Ding, Grange and Engle (1993) to not only capture asymmetry in return volatility, but also yield the long-memory property of returns. The APARCH(p,q) model can be written as:

$$\varepsilon_t = z_t h_t, \ \ h_t^2 = \alpha_0 + \sum_{i=1}^{q}\alpha_i(|\varepsilon_{t-i}| - \gamma_i\varepsilon_{t-i})^\delta + \sum_{j=1}^{q}\beta_j h_{t-j}^2 \tag{10}$$

where $\delta$ is a positive number that shows the power of the function.

### 3.2.7. FIGARCH model

Baillie et al. (1996) introduced a new class of GARCH models named Fractionally Integrated GARCH models to analyse the long-memory behaviour of the conditional variances of the financial time series. Baillie *et al.* (1996) set the parameters of the FIGARCH(p,d,q) model as follows:

$$\varepsilon_t = z_t h_t^{1/2}, \ \varepsilon_t \sim iid(0,1), \Phi(L) = (1-L)^d\varepsilon_t^2 = \alpha_0 + [1 - \beta(L)]v_t \tag{11}$$

where $v_t \stackrel{\text{def}}{=} \varepsilon_t^2 - h_t$ and $0 < d < 1$

### 3.2.8. AVGARCH model

The AVGARCH model is known as the absolute value generalized autoregressive conditional heteroscedastic model. It was proposed by Taylor (1986) and Schwert (1989) to capture the Taylor effect. The AVGARCH model can be represented as follows:

$$\varepsilon_t = z_t h_t, \ h_t^2 = \alpha_0 + \sum_{i=1}^{p}\alpha_i(|\varepsilon_{t-i} + b| - c(\varepsilon_{t-i} + b))^2 + \sum_{j=1}^{q}\beta_j h_{t-j}^2 \tag{12}$$

### 3.2.9. csGARCH model

The csGARCH model is defined as the component standard GARCH model. It was introduced by Lee and Engle (1999) to decompose the conditional variance into a permanent and transitory component.

Let  be a permanent component of the conditional variance. The cs-GARCH(p,q) model can be written as:

$$h_t^2 = q_t + \sum_{j=1}^{q} \alpha_j(\varepsilon_{t-j}^2 - q_{t-j}) + \sum_{j=1}^{p} \beta_j(h_{t-j}^2 - q_{t-j})$$

(13)

where  $q_t = \omega + \rho q_{t-1} + \theta(\varepsilon_{t-1}^2 - h_{t-1}^2)$

### 3.2.10. NGARCH model

The NGARCH model is defined as a nonlinear GARCH model. It was introduced by Higgins and Bera (1992). The NGARCH model is very similar to the APARCH model, in which when $\gamma_i=0$ and $\delta=2$, the model turns completely the NGARCH(p,q) model.

### 3.2.11. NAGARCH model

The NAGARCH model stands for the nonlinear asymmetric GARCH model. It was developed by Engle and Ng (1993). The NAGARCH model can be represented as follows:

$$h_t^2 = \alpha_0 + \sum_{i=1}^{p} \alpha_i(\varepsilon_{t-i} - \gamma_i h_{t-i}) + \sum_{j=1}^{q} \beta_j h_{t-j}^2$$

(14)

Where $\alpha_0>0, \alpha_i\geq0, \beta_j\geq0$. If $\gamma_i\neq0$ If , then asymmetry is present. It is seen that $\gamma_i$ is the asymmetry parameter, and if $\gamma_i$ is positive then a positive shock induces more volatility than a negative shock of the same size.

### 4. The Model Confidence Set

One of the main goals that a researcher has is to determine the statistically superior ones among a large number of different modelling techniques in terms of out-of-sample error performance. For this purpose, Hansen *et al*. (2011) developed a model confidence set (MCS) procedure which includes a sequence of statistical tests to discard the model with the worst forecasts in each iteration. When there is no model to be removed by the test, the remaining models consist of a set of superior models with a confidence level 1-α The MCS starts with M⁰ the initial set of *m* candidate model and hopes to identify a smaller sized set of superior models M*, where the null hypothesis of equal forecast performance is not rejected any more. The details of this procedure are given below.

Firstly, to assess the predictive power of the models, we need a loss function. Here, the mean absolute error (MAE) is the loss function that we use as a measure of degree of predicting volatility. It is represented as $L(h_{i,t}^2 - \sigma_t^2) = |h_{i,t}^2 - \sigma_t^2|$, where $i = 1,2,\cdots,m$ denotes $i$ $th$ model, and $t$ is time index. After that, the relative loss difference between the two models can be defined as:

$$d_{ij,t} = L_{i,t} - L_{j,t} \qquad \text{for } i,j = 1,2,\cdots,m \ ; \ t = 1,2,\cdots,n \qquad (15)$$

Next, in each iteration, $H_{0,M}: E[d_{ij,t}] = 0$,, the null hypothesis, is tested for all $i,j \in M \subset M^0$. The constructed t-statistics based on $\bar{d}_{ij,t} = (m-1)^{-1} \sum_{t=1}^n d_{ij}$ are calculated as follows:

$$t_{ij,t} = \frac{\bar{d}_{ij,t}}{\sqrt{\widehat{var}(\bar{d}_{ij,t})}} \qquad (16)$$

and

$$T_{R,M} = \max_{i,j \in M} |t_{ij,t}| \qquad (17)$$

where $\widehat{var}(\bar{d}_{ij,t})$ is estimated by the help of bootstrapped samples. Following Hansen $et$ $al$. (2011), we employed the block bootstrap composed of 5000 resamples and the length of block size with five.

Because the asymptotic distribution of the test statistic is not standard, again, a bootstrapping method like the aforementioned one is utilized to estimate the relevant distribution. If $H_0$ is rejected, the worst model is excluded from $M$. The procedure is halted when  is no longer rejected. At this point, the final set $M_{1-\alpha}^*$ contains the models of equal predictive ability. For more information regarding the test, please refer to the original paper (Hansen $et$ $al$., 2011).

### 5. The Results of the Analysis

Presenting the forecasting results of a very large model pool consisting of different model specifications is a challenging task. For this purpose, we created Table 2, whose rows are composed of 11 different GARCH models, and its columns denote the ten distributions investigated in this study. So, from the intersection of row and column elements in this table, one can easily find that the obtained forecasting performance of any model specifications in terms of MAE for the first period and all the return series at hand. For example, the standard GARCH model (sGARCH) under skewed normal distribution (snorm) has a value of 2.622 for Dollar/TL. The bold fonts in Table 2 indicates the selected model specifications by MCS proce-

dure with α=0.10 significance level. In other words, they are the ones that exist in the model confidence set.

From Table 2, we can see that the eGARCH model under 7 distributions statistically dominates the others, and it is followed by the AVGARCH model under 3 distributions for Period 1 of the dollar data. So, the model confidence set consists of ten specifications out of 110 model combinations. From the point of distributions, std and ghyp are more frequently selected than other distributions. The number of the selected model combinations by the MCS has decreased for the return series of Euro and BIST 100 for Period 1. But we can say that the NGARCH model more frequently leads to statistically superior forecasts.

**Table 2**. *Forecasting performances (MAE) of Period 1 for the data sets.*

DOLLAR

|  | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
|---|---|---|---|---|---|---|---|---|---|---|
| sGARCH | 2.627 | 2.627 | 2.636 | 2.622 | 2.636 | 2.641 | 2.636 | 2.637 | 2.669 | 2.638 |
| eGARCH | 2.411 | **2.394** | **2.370** | 2.433 | 2.426 | **2.399** | **2.411** | **2.405** | **2.399** | **2.400** |
| gjrGARCH | 2.612 | 2.609 | 2.610 | 2.622 | 2.634 | 2.634 | 2.632 | 2.632 | 2.657 | 2.632 |
| apARCH | 2.665 | 2.669 | 2.688 | 2.678 | 2.695 | 2.709 | 2.701 | 2.704 | 3.143 | 2.706 |
| iGARCH | 2.691 | 2.685 | 2.690 | 2.711 | 2.717 | 2.722 | 2.716 | 2.716 | 3.197 | 2.716 |
| csGARCH | 2.488 | 2.486 | 2.493 | 2.474 | 2.483 | 2.489 | 2.483 | 2.483 | 2.502 | 2.484 |
| fiGARCH | 2.754 | 2.740 | 2.733 | 2.711 | 2.705 | 2.697 | 2.696 | 2.695 | 2.707 | 2.696 |
| AVGARCH | 2.551 | 2.549 | **2.385** | 2.641 | 2.579 | **2.416** | **2.417** | 2.460 | 2.559 | 2.455 |
| TGARCH | 2.505 | 2.488 | 2.464 | 2.532 | 2.527 | 2.497 | 2.509 | 2.504 | 2.453 | 2.499 |
| NGARCH | 2.695 | 2.687 | 2.692 | 2.684 | 2.702 | 2.719 | 2.709 | 2.714 | 2.903 | 2.717 |
| NAGARCH | 2.577 | 2.574 | 2.567 | 2.604 | 2.611 | 2.600 | 2.605 | 2.604 | 2.597 | 2.602 |
| EURO |  |  |  |  |  |  |  |  |  |  |
| sGARCH | 2.140 | 2.038 | **1.944** | 2.140 | 2.058 | 1.970 | 1.975 | 1.986 | 1.964 | 1.973 |
| eGARCH | 2.457 | 2.395 | 2.296 | 2.443 | 2.390 | 2.295 | 2.335 | 2.305 | 3.650 | 2.291 |
| gjrGARCH | 2.510 | 2.317 | 2.076 | 2.476 | 2.305 | 2.084 | 2.125 | 2.115 | 2.017 | 2.086 |
| apARCH | 2.485 | 2.386 | 2.201 | 2.468 | 2.377 | 2.208 | 2.280 | 2.226 | 2.084 | 2.202 |
| iGARCH | 2.987 | 2.980 | 2.957 | 2.965 | 2.961 | 2.936 | 2.944 | 2.925 | 3.561 | 2.924 |
| csGARCH | 2.261 | 2.217 | 2.165 | 2.253 | 2.215 | 2.165 | 2.162 | 2.170 | 2.174 | 2.164 |
| fiGARCH | 3.061 | 3.059 | 3.053 | 3.045 | 3.042 | 3.037 | 3.038 | 3.033 | 3.040 | 3.033 |
| AVGARCH | 2.463 | 2.379 | 2.345 | 2.496 | 2.429 | 2.332 | 2.337 | 2.313 | 2.269 | 2.335 |
| TGARCH | 2.507 | 2.442 | 2.342 | 2.496 | 2.440 | 2.342 | 2.384 | 2.353 | 2.267 | 2.338 |
| NGARCH | 2.188 | 2.014 | **1.889** | 2.189 | 2.044 | 1.930 | 1.933 | 1.948 | **1.916** | 1.934 |
| NAGARCH | 2.404 | 2.267 | 2.071 | 2.379 | 2.252 | 2.062 | 2.082 | 2.090 | 1.974 | 2.063 |
| BIST 100 |  |  |  |  |  |  |  |  |  |  |
| sGARCH | 3.203 | 3.332 | 3.541 | 3.290 | 3.396 | 3.574 | 3.647 | 3.533 | 3.571 | 3.573 |
| eGARCH | 3.677 | 3.711 | 3.793 | 3.648 | 3.721 | 1640 | 3.806 | 3.781 | 27.22 | 3.774 |
| gjrGARCH | 3.532 | 3.562 | 3.614 | 3.532 | 3.586 | 3.617 | 3.629 | 3.623 | 3.631 | 3.620 |
| apARCH | 3.556 | 3.594 | 3.648 | 3.544 | 3.618 | 3.657 | 3.656 | 3.659 | 3.637 | 3.657 |
| iGARCH | 3.659 | 3.877 | 4.279 | 3.817 | 3.990 | 4.388 | 4.534 | 4.269 | 4.527 | 4.354 |
| csGARCH | 3.256 | 3.422 | 3.614 | 3.330 | 3.425 | 3.590 | 3.652 | 3.554 | 3.598 | 3.587 |
| fiGARCH | 3.488 | 3.539 | 4.355 | 3.538 | 3.573 | 4.447 | 4.592 | 4.346 | - | 4.426 |
| AVGARCH | 3.658 | 3.630 | 3.620 | 3.834 | 3.801 | 3.804 | 3.607 | 3.752 | 3.461 | 3.781 |
| TGARCH | 3.754 | 3.789 | 3.865 | 3.734 | 3.812 | 3.841 | 3.851 | 3.844 | 3.793 | 3.845 |
| NGARCH | **3.023** | **3.153** | 3.344 | **3.144** | 3.246 | 3.415 | 3.489 | 3.389 | 3.507 | 3.422 |
| NAGARCH | 3.627 | 3.706 | 3.802 | 3.552 | 3.675 | 3.820 | 3.767 | 3.746 | 3.753 | 3.782 |

The forecasting results of the remaining six periods can be found in the Appendix. Here we present the frequencies of the selected models and distributions for each data set, and the selected model combinations for all data sets considered, respectively, in Table 3 and Table 4. Table 3 shows that the three most selected models and distributions for the Dollar are sGARCH, eGARCH, and csGARCH models and ghst, norm, and ged distributions; for the Euro they are sGARCH, NGARCH, and csGARCH models and ghst, norm, and ged distributions; for the BIST 100 they are gjrGARCH, iGARCH, and csGARCH models and norm, ged, and snorm distributions. We can conclude that the most selected models and distributions are largely dependent on the characteristics of the data set analysed. But it is noticeable that the csGARCH model, and norm and ged distributions are among the most selected specifications for all data. Also, while the apARCH model has never been in the confidence set for the Dollar and the BIST 100 data, it has often been part of this set for the Euro. Similar comments apply for distributions.

**Table 3.** *The frequencies of the selected specifications by the MCS test for each data set.*

| | DOLLAR | EURO | BIST 100 |
|---|---|---|---|
| Models | | | |
| sGARCH | 6 | 21 | 1 |
| eGARCH | 7 | 2 | 6 |
| gjrGARCH | 3 | 11 | 11 |
| apARCH | 0 | 11 | 0 |
| iGARCH | 3 | 4 | 13 |
| csGARCH | 6 | 14 | 11 |
| fiGARCH | 1 | 2 | 4 |
| AVGARCH | 5 | 0 | 1 |
| TGARCH | 1 | 1 | 1 |
| NGARCH | 3 | 20 | 3 |
| NAGARCH | 4 | 12 | 6 |
| Distributions | | | |
| norm | 8 | 17 | 11 |
| ged | 8 | 13 | 7 |
| std | 2 | 7 | 4 |
| snorm | 4 | 11 | 7 |
| sged | 0 | 12 | 5 |
| sstd | 2 | 4 | 4 |
| ghyp | 2 | 7 | 5 |
| nig | 1 | 7 | 4 |
| ghst | 11 | 14 | 4 |
| jsu | 1 | 6 | 6 |

To further examine the forecast performances of the models and distributions, we used the absolute errors to draw the boxplots of each data set, which are given in Figure 4-9. In these tables, the lines in the middle of boxes represent the median of the corresponding model or distribution, and the circles denote the outliers. As can be seen from Figure 4, the median of the eGARCH model, and the length of its box, which indicates the difference between the first and third quartile, are larger than most models, even if it is one of the most selected models according to Table 3. We can say that NGARCH, csGARCH, and sGARCH are more accurate at exhibiting error distributions for Dollar/TL data. Again, from Figure 5, the ghst distribution is one of the three most chosen distributions, but it has the largest outliers. However, the other chosen distributions still have good properties.
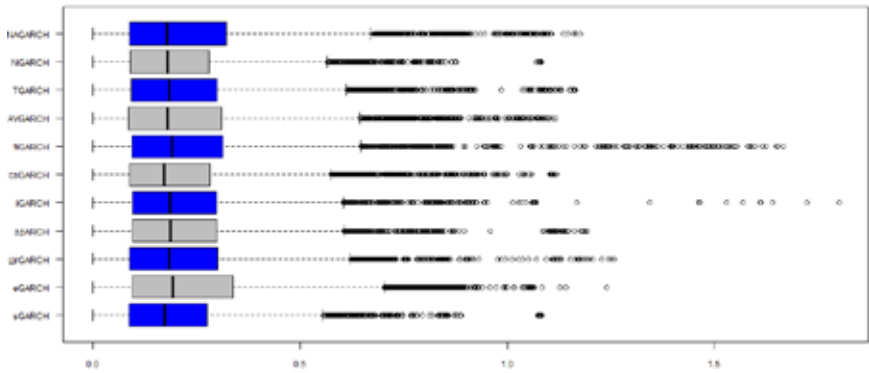


**Figure 4.** *The boxplots of the models for Dollar/TL.*
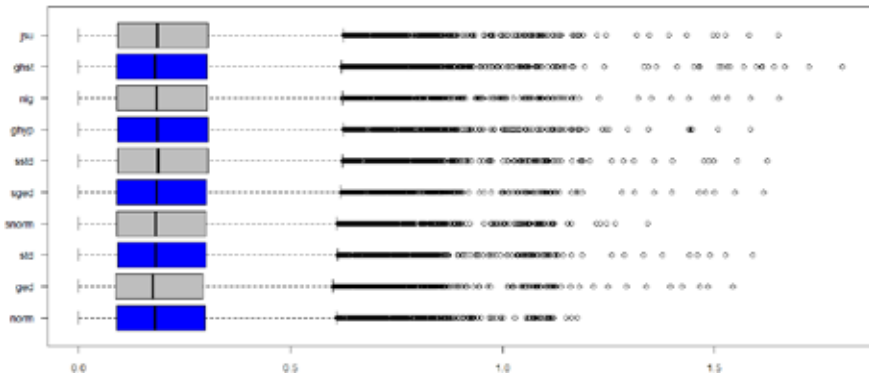


**Figure 5.** *The boxplots of the distributions for Dollar/TL.*

Regarding the boxplots of the models for Euro/TL in Figure 6, these confirm that sGARCH, NGARCH, and csGARCH are still among the best models, and the gjrGARCH model is as good as they are. Figure 7 does not clarify the superiority of any one distribution over the others. However, it

can be observed that the ghst distribution produces more outliers even if it has a tendency to be part of the model confidence set more frequently than the majority of the other distributions.
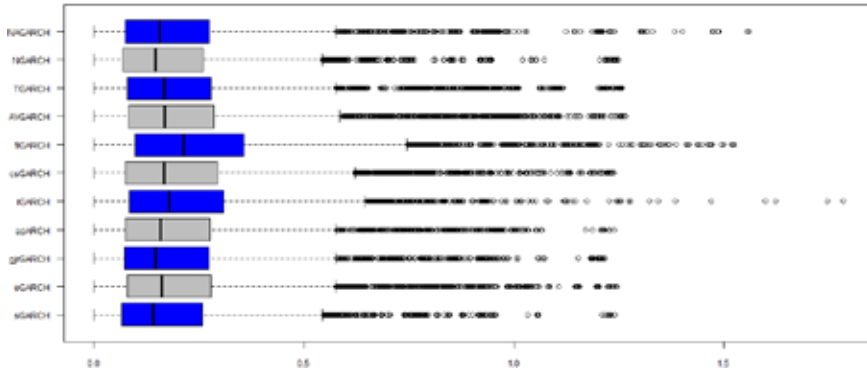


**Figure 6.** *The boxplots of the models for Euro/TL.*
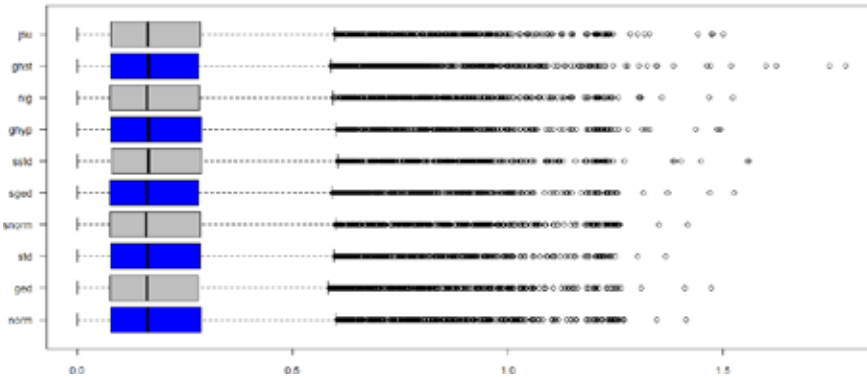


**Figure 7.** *The boxplots of the distributions for Euro/TL.*

Figure 8 indicates that the distributions of the two most chosen models, gjrGARCH and csGARCH, are still good but the most chosen model (iGARCH) has a relatively longer boxplot. An interesting observation is that the apARCH model, which is not among the best models, has better error distribution properties compared to the iGARCH model. Besides, eGARCH has been selected six times to the set of superior models, but it has the worst properties such as the longest box and the most extreme outliers. Regarding the boxplots of the distributions for BIST 100, it is apparent from Figure 9 that ghst, sstd, and std have the worst performances, leading to more outliers that others.
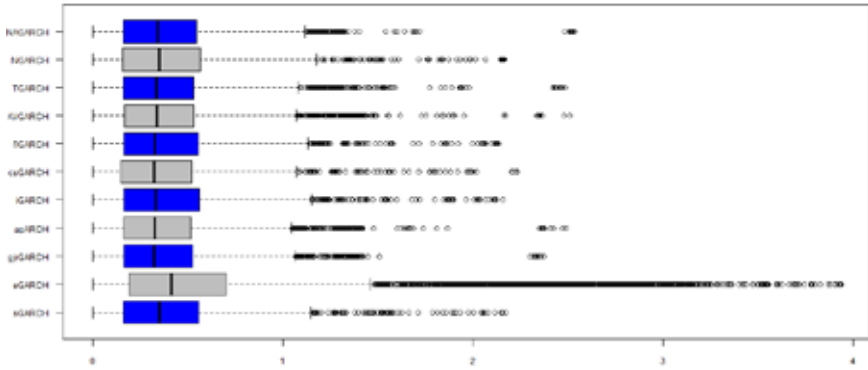
**Figure 8.** *The boxplots of the models for BIST 100.*
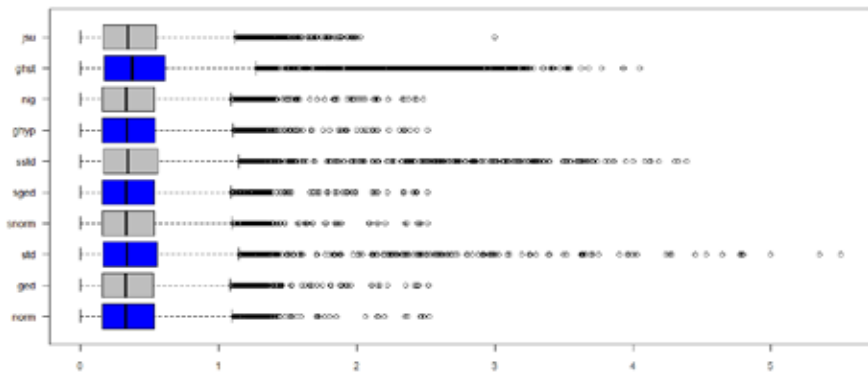


**Figure 9.** *The boxplots of the distributions for BIST 100.*

One of the objectives of this study is to identify the superior GARCH model specifications, if possible, for out-of-sample forecasting in all the series we investigated. Accordingly, Table 4 is constructed to determine the number of the chosen model combinations by MCS test for all data sets. From this table it is evident that the model combinations selected more than five times are the sGARCH-norm, the sGARCH-ged, the sGARCH-ghst, the iGARCH-norm, the csGARCH-norm, the csGARCH-snorm, the NGARCH-norm, and NGARCH-ghst. Also, some specifications are not included in the model confidence set at all. Last but not least, the three most frequently chosen models are csGARCH, sGARCH, and NGARCH, respectively, and the three most chosen distributions are norm, ghst, and ged, respectively.

**Table 4.** *The frequencies of the selected model combinations by the MCS test for all data sets.*

|          | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu | **Sum** |
|----------|------|-----|-----|-------|------|------|------|-----|------|-----|---------|
| sGARCH   | 7    | 5   | 2   | 2     | 2    | 1    | 1    | 1   | 6    | 1   | 28      |
| eGARCH   | 1    | 1   | 1   | 2     | 1    | 2    | 2    | 2   | 1    | 2   | 15      |
| gjrGARCH | 3    | 4   | 2   | 2     | 4    | 2    | 2    | 2   | 2    | 2   | 25      |
| apARCH   | 1    | 2   | 1   | 1     | 2    | 1    | 1    | 1   | 0    | 1   | 11      |
| iGARCH   | 5    | 3   | 1   | 2     | 1    | 1    | 1    | 1   | 3    | 1   | 19      |
| csGARCH  | 6    | 4   | 1   | 5     | 3    | 1    | 3    | 2   | 4    | 3   | 32      |
| fiGARCH  | 2    | 1   | 0   | 2     | 0    | 0    | 0    | 0   | 2    | 0   | 7       |
| AVGARCH  | 2    | 0   | 1   | 0     | 0    | 1    | 1    | 0   | 1    | 0   | 6       |
| TGARCH   | 0    | 0   | 0   | 0     | 0    | 0    | 0    | 0   | 2    | 1   | 3       |
| NGARCH   | 5    | 4   | 2   | 3     | 3    | 1    | 1    | 1   | 6    | 1   | 27      |
| NAGARCH  | 4    | 4   | 2   | 3     | 2    | 0    | 2    | 2   | 2    | 1   | 22      |
| Sum      | 36   | 28  | 13  | 22    | 18   | 10   | 14   | 12  | 29   | 13  |         |

## CONCLUSIONS

This study has performed a very broad out-of-sample forecasts comparison by the help of the MCS procedure in the context of daily volatility, forecasting three well-known data sets among a wide number of GARCH model specifications. Specifically, in total, 110 GARCH model combinations are employed to identify whether there are some models and/or distributions that lead to better forecasts. For this purpose, the MCS procedure, which provides the superior set of models with equal predictive ability, helps us to statistically determine which ones should be included in the model confidence set with respect to a user-defined loss function.

Though some models and distributions are more selected to the set of superior specifications, the best GARCH model for forecasting volatility largely depends on the characteristics of the data at hand. However, some conclusions can be drawn based on the findings reported in this study. First, as compared to the distributions, the models have more impact on forecasting performance. Second, examining error distributions via summary statistics is a useful tool because it may uncover findings that cannot be observed in tables. Third, taking account of all data sets in the study, it can be said that the model set consisting of TGARCH, AVGARCH, and fiGARCH, and the distributions composed of std, sstd, nig, jsu, and ghyp tend to yield less accurateforecasts. Finally, the most selected models are sGARCH, csGARCH, and NGARCH, and the most selected distributions in all return series are norm and ged.

# REFERENCES

Angelidis, T., Benos, A., & Degiannakis, S. (2004). The use of GARCH models in VaR estimation. *Statistical methodology*, 1(1-2), 105-128.

Baillie, R. T., Bollerslev, T., & Mikkelsen, H. O. (1996). Fractionally integrated generalized autoregressive conditional heteroskedasticity. *Journal of econometrics*, 74(1), 3-30.

Bollerslev, T. (1986). Generalized autoregressive conditional heteroskedasticity. *Journal of econometrics*, 31(3), 307-327.

Brailsford, T. J., & Faff, R. W. (1996). An evaluation of volatility forecasting techniques. *Journal of Banking & Finance*, 20(3), 419-438.

Braione, M., & Scholtes, N. (2016). Forecasting value-at-risk under different distributional assumptions. *Econometrics*, 4(1), 3.

Brownlees, C., & Engle, R. F. (2016). SRISK: A conditional capital shortfall measure of systemic risk. *The Review of Financial Studies*, 30(1), 48-79.

Cao, C. Q., & Tsay, R. S. (1992). Nonlinear time-series analysis of stock volatilities. *Journal of Applied Econometrics*, 7(S1), S165-S185.

Caporale, G. M., & Zekokh, T. (2019). Modelling volatility of cryptocurrencies using Markov-Switching GARCH models. *Research in International Business and Finance*, 48, 143-155.

Choudhry, T., Hasan, M., & Zhang, Y. (2019). Forecasting the daily dynamic hedge ratios in emerging European stock futures markets: evidence from GARCH models. *International Journal of Banking, Accounting and Finance*, 10(1), 67-100.

Ding, Z., Granger, C. W., & Engle, R. F. (1993). A long memory property of stock market returns and a new model. *Journal of empirical finance*, 1(1), 83-106.

Engle, R. F. (1982). Autoregressive conditional heteroscedasticity with estimates of the variance of United Kingdom inflation. *Econometrica: Journal of the Econometric Society*, 987-1007.

Engle, R. F., & Ng, V. K. (1993). Measuring and testing the impact of news on volatility. *The journal of finance*, 48(5), 1749-1778.

Glosten, L. R., Jagannathan, R., & Runkle, D. E. (1993). On the relation between the expected value and the volatility of the nominal excess return on stocks. *The journal of finance*, 48(5), 1779-1801.

Hansen, P. R., Lunde, A., & Nason, J. M. (2011). The model confidence set. *Econometrica*, 79(2), 453-497.

Harmantzis, F. C., Miao, L., & Chien, Y. (2006). Empirical study of value-at-risk and expected shortfall models with heavy tails. *The journal of risk finance*, 7(2), 117-135.

Higgins, M. L., & Bera, A. K. (1992). A class of nonlinear ARCH models. *International Economic Review*, 137-158.

Hung, J. C., Lee, M. C., & Liu, H. C. (2008). Estimation of value-at-risk for energy commodities via fat-tailed GARCH models. *Energy Economics*, 30(3), 1173-1191.

Kat, H. M., & Heynen, R. C. (1994). Volatility Prediction: A Comparison of the Stochastic Volatility, GARCH (1, 1) and Egarch (1, 1) Models. *Journal of Derivatives*, 2(2).

Lee, K. Y. (1991). Are the GARCH models best in out-of-sample performance?. *Economics Letters*, 37(3), 305-308.

Lee, G. G., & Engle, R. F. (1993). A permanent and transitory component model of stock return volatility. *Available at SSRN 5848*.

Lee, M. C., Su, J. B., & Liu, H. C. (2008). Value-at-risk in US stock indices with skewed generalized error distribution. *Applied Financial Economics Letters*, 4(6), 425-431.

Miron, D., & Tudor, C. (2010). Asymmetric conditional volatility models: Empirical estimation and comparison of forecasting accuracy. *Romanian Journal of Economic Forecasting*, 13(3), 74-92.

Nelson, D. B. (1991). Conditional heteroskedasticity in asset returns: A new approach. Econometrica: *Journal of the Econometric Society*, 347-370.

Pagan, A. R., & Schwert, G. W. (1990). Alternative models for conditional stock volatility. *Journal of econometrics*, 45(1-2), 267-290.

Pérez-Cruz, F., Afonso-Rodriguez, J. A., & Giner, J. (2003). Estimating garch models using support vector machines. Quantitative Finance, 3(3), 163-172.

Rabemananjara, R., & Zakoian, J. M. (1993). Threshold ARCH models and asymmetries in volatility. *Journal of Applied Econometrics*, 8(1), 31-49.

Schwert, G. W. (1989). Why does stock market volatility change over time?. *The journal of finance*, 44(5), 1115-1153.

Shamiri, A., & Isa, Z. (2009). Modeling and forecasting volatility of the Malaysian stock markets. *Journal of Mathematics and Statistics*, 5(3), 234.

Song, M. (2014). *Modelling and forecasting volatility of JSE sectoral indices: a Model Confidence Set exercise* (Doctoral dissertation).

Stokes, H. H., Liu, L. M., & Lattyak, W. J. General Autoregressive Conditional Heteroscedastic (GARCH) Modeling Using the SCAB34S-GARCH and SCA WorkBench.

Taylor, J. W. (2004). Volatility forecasting with smooth transition exponential smoothing. *International Journal of Forecasting*, 20(2), 273-286.

Taylor, S. J. (2008). *Modelling financial time series*. Wiley, New York.

Vijayalakshmi, S., & Gaur, S. (2013). Modelling volatility: Indian stock and foreign exchange markets. *Journal of Emerging Issues in Economics*, Finance and Banking, 2(1), 583-98.

Vlaar, P. J. (2000). Value at risk models for Dutch bond portfolios. *Journal of banking & finance*, 24(7), 1131-1154.

Zakoian, J. M. (1994). Threshold heteroskedastic models. *Journal of Economic Dynamics and control*, 18(5), 931-955.

# APPENDIX

**Table 5**. *Forecasting performances (MAE) of Period 2 for the data sets.*

| DOLLAR | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
| sGARCH | 1.923 | 1.933 | 1.961 | 1.955 | 1.962 | 1.977 | 1.986 | 1.976 | 1.943 | 1.979 |
| eGARCH | 2.105 | 2.102 | 2.100 | 2.105 | 2.106 | 2.102 | 2.104 | 2.104 | 2.104 | 2.103 |
| gjrGARCH | 1.936 | 1.943 | 1.988 | 2.076 | 2.116 | 2.148 | 2.143 | 2.134 | 1.946 | 2.139 |
| apARCH | 1.947 | 1.954 | 1.991 | 2.096 | 2.098 | 2.107 | 2.112 | 2.106 | 1.965 | 2.108 |
| iGARCH | 1.953 | 1.952 | 1.972 | 2.007 | 1.996 | 1.999 | 2.010 | 2.002 | 2.164 | 2.003 |
| csGARCH | 1.679 | 1.680 | 1.703 | 1.672 | 1.686 | 1.695 | 1.695 | 1.687 | 1.704 | 1.693 |
| fiGARCH | 1.684 | 1.695 | 1.739 | **1.633** | 1.674 | 1.709 | 1.691 | 1.684 | 1.699 | 1.696 |
| AVGARCH | 2.112 | 2.066 | 2.099 | 2.112 | 2.073 | 2.102 | 2.103 | 2.103 | 1.897 | 2.103 |
| TGARCH | 2.054 | 2.045 | 2.037 | 2.062 | 2.057 | 2.051 | 2.051 | 2.054 | 2.034 | 2.053 |
| NGARCH | 1.957 | 1.958 | 1.985 | 1.981 | 1.984 | 1.998 | 2.007 | 1.996 | 2.142 | 1.999 |
| NAGARCH | 2.093 | 1.905 | 2.087 | 2.092 | 2.090 | 2.089 | 2.089 | 2.090 | 1.877 | 2.090 |

| EURO | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| sGARCH | **1.497** | **1.519** | **1.572** | **1.495** | **1.518** | **1.579** | **1.573** | **1.553** | **1.579** | **1.568** |
| eGARCH | 1.891 | 1.901 | 1.928 | 1.887 | 1.903 | 1.938 | 1.928 | 1.919 | 1.928 | 1.928 |
| gjrGARCH | **1.643** | **1.632** | **1.637** | **1.648** | **1.637** | **1.648** | **1.644** | **1.642** | 1.685 | **1.646** |
| apARCH | **1.492** | **1.511** | **1.579** | **1.497** | **1.519** | **1.600** | **1.594** | **1.575** | 1.638 | **1.591** |
| iGARCH | **1.792** | 1.893 | 2.091 | **1.785** | 1.894 | 2.111 | 2.069 | 1.996 | 2.822 | 2.055 |
| csGARCH | **1.668** | **1.688** | 1.724 | **1.666** | **1.688** | 1.726 | **1.722** | **1.707** | 1.734 | **1.717** |
| fiGARCH | 2.491 | 2.496 | 2.532 | 2.486 | 2.490 | 2.522 | 2.520 | 2.500 | 2.498 | 2.511 |
| AVGARCH | 2.748 | 2.598 | 1.954 | 1.940 | 1.960 | 2.018 | 2.517 | 1.961 | 1.998 | 1.971 |
| TGARCH | 2.607 | 1.999 | 2.024 | 2.608 | 2.000 | 2.035 | 2.021 | 2.013 | 2.021 | 2.023 |
| NGARCH | **1.444** | **1.439** | **1.483** | **1.443** | **1.439** | **1.490** | **1.487** | **1.465** | **1.507** | **1.480** |
| NAGARCH | **1.597** | **1.609** | **1.644** | **1.597** | **1.613** | 1.661 | **1.650** | **1.639** | 1.666 | **1.650** |

| BIST 100 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| sGARCH | 3.327 | 3.464 | 3.675 | 3.432 | 3.528 | 3.685 | 3.718 | 3.645 | 3.678 | 3.675 |
| eGARCH | 3.093 | 3.145 | 1912 | 3.170 | 3.213 | 3.314 | 3.368 | 3.295 | 23.269 | 3.318 |
| gjrGARCH | 3.133 | 3.212 | 3.459 | 3.238 | 3.295 | 3.495 | 3.550 | 3.460 | 3.578 | 3.507 |
| apARCH | 3.159 | 3.227 | 3.487 | 3.249 | 3.298 | 3.479 | 3.568 | 3.438 | 3.558 | 3.491 |
| iGARCH | **3.359** | **3.542** | 3.769 | 3.485 | 3.618 | 3.793 | 3.834 | 3.740 | 3.503 | 3.762 |
| csGARCH | **3.048** | 3.105 | 3.230 | 3.131 | 3.183 | 3.273 | 3.304 | 3.248 | 3.310 | 3.267 |
| fiGARCH | 3.047 | 3.546 | 3.708 | 3.476 | 3.608 | 3.731 | 3.775 | 3.685 | - | 3.701 |
| AVGARCH | 4.006 | 3.833 | 3.818 | 3.954 | 3.491 | 3.523 | 3.841 | 3.416 | 3.467 | 3.815 |
| TGARCH | 3.092 | 3.129 | 3.221 | 3.157 | 3.189 | 3.248 | 3.299 | 3.240 | 3.203 | 3.253 |
| NGARCH | 3.281 | 3.438 | 3.731 | 3.404 | 3.513 | 3.735 | 3.745 | 3.679 | 3.770 | 3.723 |
| NAGARCH | **2.930** | **2.956** | **3.052** | **3.000** | 3.013 | 3.092 | **3.260** | 3.093 | 3.311 | 3.124 |

**Table 6**. *Forecasting performances (MAE) of Period 3 for the data sets.*

| | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
|---|---|---|---|---|---|---|---|---|---|---|
| **DOLLAR** | | | | | | | | | | |
| sGARCH | 2.522 | 2.520 | 2.561 | 2.543 | 2.531 | 2.558 | 2.556 | 2.552 | 2.538 | 2.554 |
| eGARCH | 4.903 | 5.426 | 5.755 | 5.465 | 5.456 | 5.407 | 5.195 | 5.485 | 6.115 | 5.629 |
| gjrGARCH | 2.679 | 2.660 | 2.750 | 2.804 | 2.822 | 2.875 | 2.873 | 2.855 | 2.668 | 2.865 |
| apARCH | 2.908 | 2.856 | 2.844 | 2.902 | 2.859 | 2.848 | 2.851 | 2.851 | 2.829 | 2.849 |
| iGARCH | 2.552 | 2.560 | 2.587 | 2.607 | 2.596 | 2.608 | 2.614 | 2.611 | 2.883 | 2.610 |
| csGARCH | **2.160** | 2.207 | 2.262 | **2.162** | 2.219 | 2.261 | 2.248 | 2.240 | 2.235 | 2.250 |
| fiGARCH | 2.555 | 2.556 | 2.581 | 2.605 | 2.597 | 2.613 | 2.616 | 2.614 | 2.616 | 2.614 |
| AVGARCH | 3.413 | 3.103 | 3.007 | 3.162 | 3.053 | 3.043 | 3.394 | 3.394 | 2.983 | 3.305 |
| TGARCH | 2.949 | 2.920 | 2.919 | 2.927 | 2.906 | 2.907 | 2.905 | 2.902 | 2.923 | 2.904 |
| NGARCH | 2.579 | 2.552 | 2.581 | 2.559 | 2.545 | 2.567 | 2.555 | 2.552 | 2.568 | 2.555 |
| NAGARCH | 3.894 | 3.707 | 3.721 | 3.871 | 3.737 | 3.736 | 3.760 | 3.779 | 3.733 | 3.785 |
| **EURO** | | | | | | | | | | |
| sGARCH | **1.930** | **1.997** | 2.120 | **1.930** | **1.999** | 2.121 | 2.117 | 2.072 | **2.015** | 2.104 |
| eGARCH | 2.333 | 2.330 | 2.417 | 2.345 | 2.330 | 2.413 | 2.405 | 2.367 | 2.389 | 2.393 |
| gjrGARCH | 2.089 | **2.043** | 2.170 | 2.123 | **2.045** | 2.155 | 2.141 | 2.084 | 2.128 | 2.120 |
| apARCH | 2.073 | **2.040** | 2.174 | 2.111 | **2.041** | 2.161 | 2.148 | 2.092 | 2.085 | 2.126 |
| iGARCH | 2.094 | 2.246 | 2.450 | 2.093 | 2.247 | 2.457 | 2.443 | 2.379 | 3.255 | 2.429 |
| csGARCH | 2.456 | 2.413 | 2.393 | 2.459 | 2.412 | 2.395 | 2.395 | 2.403 | 2.439 | 2.396 |
| fiGARCH | 3.085 | 3.066 | 3.077 | 3.093 | 3.066 | 3.075 | 3.084 | 3.073 | 3.074 | 3.075 |
| AVGARCH | 2.520 | 2.748 | 2.570 | 2.344 | 2.531 | 2.459 | 2.781 | 2.438 | 2.432 | 2.779 |
| TGARCH | 2.436 | 2.463 | 2.497 | 2.442 | 2.463 | 2.495 | 2.492 | 2.480 | 2.501 | 2.489 |
| NGARCH | **1.897** | **1.966** | 2.074 | **1.896** | **1.967** | 2.076 | 2.072 | 2.034 | **1.996** | 2.061 |
| NAGARCH | **2.025** | **1.982** | 2.073 | 2.038 | **1.986** | 2.065 | 2.056 | 2.016 | 2.031 | 2.040 |
| **BIST 100** | | | | | | | | | | |
| sGARCH | 3.845 | 4.040 | 4.291 | 3.979 | 4.089 | 4.274 | 4.306 | 4.237 | 4.284 | 4.268 |
| eGARCH | 4.098 | 4.203 | 4.518 | 4.189 | 4.301 | 9987 | 4.669 | 4.524 | 22.947 | 61.38 |
| gjrGARCH | 3.956 | 4.030 | 4.261 | 4.051 | 4.101 | 4.266 | 4.312 | 4.252 | 4.331 | 4.273 |
| apARCH | 3.936 | 4.000 | 4.277 | 4.053 | 4.120 | 4.288 | 4.302 | 4.279 | 4.298 | 4.291 |
| iGARCH | 3.950 | 4.255 | 4.487 | 4.134 | 4.300 | 4.476 | 4.505 | 4.431 | 4.213 | 4.454 |
| csGARCH | 3.796 | 3.918 | 4.094 | 3.879 | 3.961 | 4.060 | 4.086 | 4.027 | 4.064 | 4.047 |
| fiGARCH | **3.615** | 3.732 | 4.484 | **3.694** | 3.767 | 4.471 | 3.861 | 4.428 | - | 4.447 |
| AVGARCH | 4.124 | 4.150 | 4.236 | 4.181 | 4.191 | 4.246 | 4.323 | 4.251 | 4.196 | 4.266 |
| TGARCH | 4.071 | 4.138 | 4.293 | 4.122 | 4.208 | 4.309 | 4.414 | 4.315 | 4.282 | 4.329 |
| NGARCH | 3.884 | 4.368 | 4.359 | 4.032 | 4.373 | 4.366 | 4.369 | 4.368 | 4.385 | 3.884 |
| NAGARCH | 4.367 | 4.095 | 4.155 | 4.284 | 4.184 | 4.234 | 4.365 | 4.655 | 4.450 | 4.732 |

**Table 7**. *Forecasting performances (MAE) of Period 4 for the data sets.*

| DOLLAR | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
| sGARCH | 2.057 | 2.054 | 2.113 | 2.075 | 2.065 | 2.110 | 2.085 | 2.076 | 2.038 | 2.087 |
| eGARCH | 2.105 | 2.097 | 2.070 | 2.068 | 2.056 | 2.031 | 2.015 | 2.038 | 2.353 | 2.036 |
| gjrGARCH | 2.398 | 2.340 | 2.369 | 2.406 | 2.360 | 2.379 | 2.379 | 2.356 | 2.297 | 2.365 |
| apARCH | 2.147 | 2.162 | 2.198 | 2.145 | 2.163 | 2.192 | 2.188 | 2.175 | 2.155 | 2.184 |
| iGARCH | 2.071 | 2.073 | 2.131 | 2.088 | 2.097 | 2.147 | 2.125 | 2.116 | 2.162 | 2.128 |
| csGARCH | **1.694** | **1.709** | 1.752 | **1.708** | 1.737 | 1.764 | 1.752 | 1.745 | **1.699** | 1.753 |
| fiGARCH | 2.013 | 2.042 | 2.096 | 2.027 | 2.065 | 2.112 | 2.093 | 2.084 | 2.047 | 2.096 |
| AVGARCH | 1.992 | 2.005 | 2.006 | 1.990 | 2.004 | 2.005 | 2.006 | 2.005 | 1.985 | 2.014 |
| TGARCH | 2.207 | 2.178 | 2.182 | 2.202 | 2.177 | 2.178 | 2.177 | 2.173 | 2.158 | 2.174 |
| NGARCH | 2.092 | 2.069 | 2.098 | 2.107 | 2.077 | 2.098 | 2.081 | 2.077 | 2.040 | 2.082 |
| NAGARCH | 2.057 | 2.054 | 2.053 | 2.033 | 2.033 | 2.037 | 2.036 | 2.032 | 2.058 | 2.034 |
| EURO | | | | | | | | | | |
| sGARCH | **1.717** | 1.850 | 1.979 | 1.732 | 1.878 | 1.982 | 1.971 | 1.939 | 1.771 | 1.955 |
| eGARCH | **1.687** | 1.862 | 2.046 | **1.694** | 1.957 | 2.071 | 2.068 | 1.995 | 2.079 | 2.031 |
| gjrGARCH | 1.782 | 2.085 | 2.221 | 1.839 | 2.200 | 2.253 | 2.252 | 2.199 | 1.966 | 2.221 |
| apARCH | 1.782 | 2.086 | 2.193 | 2.238 | 2.187 | 2.222 | 2.220 | 2.176 | 1.976 | 2.194 |
| iGARCH | **1.723** | 1.862 | 2.056 | 1.737 | 1.896 | 2.063 | 2.042 | 1.971 | 2.255 | 2.004 |
| csGARCH | **1.736** | 1.760 | 1.811 | **1.738** | 1.774 | 1.814 | 1.810 | 1.797 | 1.768 | 1.806 |
| fiGARCH | 2.070 | 2.071 | 2.186 | 2.069 | 2.085 | 2.193 | 2.168 | 2.108 | 1.874 | 2.138 |
| AVGARCH | 2.682 | 2.578 | 2.156 | 1.921 | 2.594 | 2.163 | 2.155 | 2.129 | 2.208 | 2.142 |
| TGARCH | 2.208 | 2.065 | 2.099 | 2.221 | 2.102 | 2.109 | 2.108 | 2.078 | 1.918 | 2.090 |
| NGARCH | **1.711** | 1.844 | 1.964 | 1.728 | 1.871 | 1.968 | 1.960 | 1.927 | 1.763 | 1.942 |
| NAGARCH | 1.740 | 2.046 | 2.212 | 1.749 | 2.124 | 2.230 | 2.219 | 2.152 | 1.970 | 2.185 |
| BIST 100 | | | | | | | | | | |
| sGARCH | **4.191** | 4.439 | 5.048 | 4.305 | 4.471 | 5.028 | 5.075 | 4.882 | 5.029 | 4.992 |
| eGARCH | 4.481 | 4.581 | 4.801 | 4.546 | 4.643 | 4.828 | 4.930 | 4.767 | 24.538 | 4.816 |
| gjrGARCH | **4.109** | **4.211** | 4.391 | **4.205** | **4.260** | 4.400 | 4.481 | 4.366 | 4.597 | 4.402 |
| apARCH | 4.624 | 4.351 | 4.422 | 4.645 | 4.392 | 4.434 | 4.512 | 4.421 | 4.554 | 4.440 |
| iGARCH | 4.983 | 5.373 | 5.470 | 5.339 | 5.390 | 5.458 | 5.462 | 5.416 | 5.134 | 5.429 |
| csGARCH | **4.142** | **4.278** | 4.419 | **4.227** | **4.302** | 4.420 | 4.437 | 4.382 | 4.447 | 4.407 |
| fiGARCH | 4.983 | 5.356 | 5.436 | 5.332 | 5.357 | 5.418 | 5.417 | 5.377 | - | 5.387 |
| AVGARCH | **4.818** | 4.255 | 5.258 | 4.757 | 4.371 | 4.481 | 5.642 | 4.459 | 4.486 | 5.396 |
| TGARCH | 4.567 | 4.611 | 4.679 | 4.597 | 4.618 | 4.668 | 4.706 | 4.656 | 4.655 | **4.668** |
| NGARCH | 4.221 | 4.379 | 5.077 | 4.329 | 4.414 | 5.059 | 5.114 | 4.844 | 5.127 | 5.011 |
| NAGARCH | 4.597 | 4.599 | 4.683 | 4.562 | 4.607 | 4.695 | 4.695 | 4.652 | 4.731 | 4.676 |

**Table 8**. *Forecasting performances (MAE) of Period 5 for the data sets.*

| | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOLLAR | | | | | | |
| sGARCH | **1.255** | **1.242** | 1.330 | 1.337 | 1.326 | 1.366 | 1.312 | 1.317 | **1.191** | 1.337 |
| eGARCH | 1.332 | 1.304 | 1.381 | 1.364 | 1.368 | 1.445 | 1.379 | 1.377 | 1.301 | 1.406 |
| gjrGARCH | **1.222** | **1.227** | 1.311 | 1.288 | 1.308 | 1.359 | 1.309 | 1.309 | **1.194** | 1.329 |
| apARCH | 1.667 | 1.611 | 1.696 | 1.801 | 1.754 | 1.736 | 1.726 | 1.726 | 1.532 | 1.726 |
| iGARCH | 1.433 | 1.394 | 1.559 | 1.474 | 1.480 | 1.595 | 1.484 | 1.485 | 1.771 | 1.519 |
| csGARCH | 1.478 | 1.484 | 1.523 | 1.499 | 1.533 | 1.547 | 1.545 | 1.550 | 1.446 | 1.551 |
| fiGARCH | 1.509 | 1.443 | 1.581 | 1.520 | 1.519 | 1.627 | 1.524 | 1.526 | 1.323 | 1.556 |
| AVGARCH | **1.281** | 1.429 | 1.681 | 1.311 | 1.562 | 1.720 | 1.709 | 1.652 | **1.251** | 1.682 |
| TGARCH | 1.548 | 1.490 | 1.560 | 1.623 | 1.562 | 1.601 | 1.581 | 1.567 | 1.411 | 1.578 |
| NGARCH | 1.411 | 1.353 | 1.449 | 1.487 | 1.457 | 1.505 | 1.447 | 1.452 | **1.281** | 1.474 |
| NAGARCH | **1.229** | **1.225** | 1.419 | **1.256** | 1.302 | 1.536 | 1.413 | 1.357 | **1.195** | 1.449 |
| | | | | EURO | | | | | | |
| sGARCH | 1.357 | 1.327 | 1.425 | 1.354 | 1.336 | 1.421 | 1.356 | 1.353 | **1.257** | 1.375 |
| eGARCH | 1.446 | 1.417 | 1.520 | 1.444 | 1.417 | 1.512 | 1.461 | 1.438 | 1.316 | 1.464 |
| gjrGARCH | 1.358 | 1.347 | 1.439 | 1.349 | 1.334 | 1.421 | 1.370 | 1.355 | 1.329 | 1.380 |
| apARCH | 1.787 | 1.398 | 1.490 | 1.914 | 1.407 | 1.500 | 1.460 | 1.430 | 1.340 | 1.455 |
| iGARCH | 1.473 | 1.457 | 1.624 | 1.463 | 1.458 | 1.616 | 1.509 | 1.494 | 1.851 | 1.537 |
| csGARCH | 1.415 | 1.374 | 1.379 | 1.534 | 1.384 | 1.385 | 1.379 | 1.379 | 1.355 | 1.381 |
| fiGARCH | 1.711 | 1.385 | 1.440 | 1.682 | 1.385 | 1.430 | 1.559 | 1.612 | **1.311** | 1.402 |
| AVGARCH | 1.496 | 1.413 | 1.548 | 1.449 | 1.414 | 1.546 | 1.454 | 1.482 | 1.388 | 1.502 |
| TGARCH | 1.451 | 1.419 | 1.491 | 1.450 | 1.417 | 1.489 | 1.457 | 1.431 | **1.316** | 1.452 |
| NGARCH | 1.413 | 1.403 | 1.535 | 1.413 | 1.427 | 1.554 | 1.483 | 1.471 | 1.360 | 1.503 |
| NAGARCH | 1.363 | 1.329 | 1.400 | 1.354 | 1.319 | 1.390 | 1.341 | 1.332 | **1.317** | 1.351 |
| | | | | BIST 100 | | | | | | |
| sGARCH | 4.803 | 4.489 | 4.158 | 4.753 | 4.486 | 4.157 | 4.134 | 4.247 | 4.066 | 4.164 |
| eGARCH | 4.216 | 4.066 | 9457 | 4.151 | 4.043 | 1101 | 3.951 | 3.931 | 27.648 | 3.931 |
| gjrGARCH | 4.588 | 4.372 | 4.295 | 4.560 | 4.373 | 4.283 | 4.291 | 4.265 | 4.224 | 4.253 |
| apARCH | 4.335 | 4.120 | 4.017 | 4.257 | 4.104 | 3.997 | 3.988 | 3.990 | 3.847 | 3.970 |
| iGARCH | 3.074 | 2.778 | 3.003 | 2.986 | 2.765 | 2.974 | 2.963 | 2.767 | **2.224** | 2.805 |
| csGARCH | 4.511 | 3.957 | 3.678 | 4.372 | 3.950 | 3.657 | 3.649 | 3.708 | 3.573 | 3.650 |
| fiGARCH | 3.802 | 2.778 | 3.003 | 2.986 | 2.765 | 2.974 | 2.963 | 2.767 | - | 2.805 |
| AVGARCH | 4.018 | 4.330 | 3.642 | 4.309 | 3.764 | 4.146 | 3.616 | 3.628 | 3.429 | 3.599 |
| TGARCH | 4.369 | 4.172 | 4.078 | 4.285 | 4.142 | 4.049 | 4.036 | 4.034 | 3.837 | 4.021 |
| NGARCH | 5.361 | 4.580 | 4.334 | 4.959 | 4.617 | 4.382 | 4.346 | 4.444 | 4.362 | 4.378 |
| NAGARCH | 4.666 | 4.482 | 4.456 | 4.603 | 4.473 | 4.441 | 4.446 | 4.393 | 4.423 | 4.401 |

**Table 9**. *Forecasting performances (MAE) of Period 6 for the data sets.*

| | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
|---|---|---|---|---|---|---|---|---|---|---|
| **DOLLAR** | | | | | | | | | | |
| sGARCH | 1.810 | 1.725 | 1.747 | 1.795 | 1.710 | 1.735 | 1.707 | 1.706 | 1.685 | 1.721 |
| eGARCH | 1.747 | 1.669 | 1.684 | 1.722 | 2.157 | 2.282 | 2.196 | 1.611 | 1.663 | 2.253 |
| gjrGARCH | 2.610 | 1.571 | 1.651 | 2.525 | 1.643 | 1.701 | 1.682 | 1.693 | 1.517 | 1.703 |
| apARCH | 1.583 | 1.543 | 1.562 | 1.583 | 1.561 | 1.582 | 1.559 | 1.569 | 1.517 | 1.578 |
| iGARCH | **1.462** | **1.446** | 1.597 | 1.497 | 1.524 | 1.643 | 1.535 | 1.570 | **1.460** | 1.600 |
| csGARCH | 1.650 | 1.543 | 1.570 | 1.609 | 1.531 | 1.562 | 1.530 | 1.528 | 1.564 | 1.543 |
| fiGARCH | 1.626 | 1.577 | 1.659 | 1.603 | 1.579 | 1.658 | 1.582 | 1.598 | 1.535 | 1.624 |
| AVGARCH | 1.770 | 1.734 | 1.800 | 1.867 | 1.675 | 1.728 | 1.694 | 1.700 | 1.727 | 1.715 |
| TGARCH | 1.822 | 1.551 | 1.565 | 1.576 | 1.556 | 1.581 | 1.562 | 1.565 | **1.495** | 1.575 |
| NGARCH | 1.808 | 1.717 | 1.741 | 1.790 | 1.702 | 1.729 | 1.699 | 1.696 | 1.747 | 1.712 |
| NAGARCH | 1.784 | 1.762 | 1.771 | 1.830 | 1.733 | 1.756 | 1.736 | 1.734 | 1.789 | 1.748 |
| **EURO** | | | | | | | | | | |
| sGARCH | 1.970 | 1.800 | 1.898 | 1.905 | 1.830 | 1.926 | 1.853 | 1.850 | 1.734 | 1.875 |
| eGARCH | 2.071 | 1.911 | 1.942 | 2.037 | 1.877 | 1.908 | 1.839 | 1.836 | 1.805 | 1.859 |
| gjrGARCH | 1.939 | 1.845 | 1.876 | 1.955 | 1.882 | 1.928 | 1.887 | 1.885 | 1.867 | 1.899 |
| apARCH | 1.970 | 2.029 | 2.042 | 1.962 | 2.007 | 2.012 | 1.960 | 1.958 | 1.946 | 1.971 |
| iGARCH | 1.870 | 1.792 | 1.984 | 1.857 | 1.822 | 2.006 | 1.875 | 1.857 | **1.730** | 1.904 |
| csGARCH | 1.791 | **1.691** | 1.744 | 1.762 | **1.703** | 1.750 | **1.693** | **1.691** | 1.662 | 1.710 |
| fiGARCH | 1.890 | 1.798 | 1.905 | 1.835 | 1.795 | 1.918 | 1.824 | 1.814 | **1.712** | 1.852 |
| AVGARCH | 2.259 | 2.112 | 2.165 | 1.885 | 1.967 | 2.127 | 2.062 | 2.057 | 2.033 | 2.078 |
| TGARCH | 2.185 | 1.998 | 2.007 | 2.161 | 1.953 | 1.961 | 1.903 | 1.901 | 1.854 | 1.916 |
| NGARCH | 1.968 | 1.828 | 1.895 | 1.936 | 1.813 | 1.879 | 1.788 | 1.783 | 1.828 | 1.817 |
| NAGARCH | 2.190 | 2.024 | 2.122 | 1.998 | 1.979 | 2.169 | 2.065 | 2.053 | 2.034 | 2.106 |
| **BIST 100** | | | | | | | | | | |
| sGARCH | 3.361 | 3.335 | 3.323 | 3.364 | 3.340 | 3.326 | 3.324 | 3.323 | 3.337 | 3.323 |
| eGARCH | 3.394 | 3.394 | 3.394 | **3.411** | **3.407** | **3.402** | **3.412** | **3.402** | 21.550 | **3.403** |
| gjrGARCH | 3.289 | 3.266 | 3.242 | 3.290 | 3.266 | 3.242 | 3.242 | 3.247 | 3.264 | 3.242 |
| apARCH | 3.293 | 3.269 | 3.240 | 3.292 | 3.269 | 3.239 | 3.239 | 3.247 | 3.235 | 3.241 |
| iGARCH | **3.344** | **3.330** | **3.354** | **3.347** | **3.336** | **3.358** | **3.353** | **3.334** | 3.014 | **3.340** |
| csGARCH | 3.403 | 3.381 | 3.377 | 3.410 | 3.385 | 3.376 | 3.374 | 3.370 | 3.381 | **3.370** |
| fiGARCH | **3.344** | **3.330** | 3.354 | 3.347 | 3.336 | 3.358 | 3.353 | 3.334 | 0.000 | 3.340 |
| AVGARCH | 3.457 | 3.440 | 3.226 | 3.479 | 3.428 | 3.226 | 3.223 | 3.355 | 3.355 | 3.229 |
| TGARCH | 3.321 | 3.299 | 3.277 | 3.315 | 3.296 | 3.275 | 3.274 | 3.281 | 3.233 | 3.275 |
| NGARCH | 3.357 | 3.323 | 3.309 | 3.370 | 3.329 | 3.312 | 3.310 | 3.309 | 3.360 | 3.309 |
| NAGARCH | 3.366 | 3.366 | 3.359 | 3.379 | 3.376 | 3.368 | 3.376 | **3.368** | 3.448 | 3.368 |

**Table 10**. *Forecasting performances (MAE) of Period 7 for the data sets.*

| | norm | ged | std | snorm | sged | sstd | ghyp | nig | ghst | jsu |
|---|---|---|---|---|---|---|---|---|---|---|
| **DOLLAR** | | | | | | | | | | |
| sGARCH | **1.762** | **1.712** | 1.764 | 2.013 | 1.930 | 1.906 | 1.998 | 1.950 | **1.660** | 1.934 |
| eGARCH | 2.251 | 2.287 | 2.423 | 2.327 | 2.384 | 2.476 | 2.508 | 2.436 | 5.976 | 2.464 |
| gjrGARCH | 2.060 | 2.187 | 2.367 | 2.142 | 2.356 | 2.487 | 2.471 | 2.418 | 2.221 | 2.466 |
| apARCH | 2.322 | 2.424 | 2.622 | 2.401 | 2.560 | 2.645 | 2.667 | 2.638 | 2.490 | 2.646 |
| iGARCH | 2.136 | 2.306 | 2.587 | 2.542 | 2.873 | 2.937 | 3.119 | 3.009 | 5.727 | 3.001 |
| csGARCH | 3.150 | 3.503 | 3.560 | 3.506 | 3.945 | 3.889 | 3.898 | 3.997 | 3.101 | 3.932 |
| fiGARCH | 3.394 | 4.921 | 5.186 | 3.823 | 5.203 | 5.252 | 4.929 | 5.431 | 5.408 | 5.411 |
| AVGARCH | 3.837 | 2.366 | 2.737 | 2.309 | 2.535 | 2.636 | 2.878 | 2.873 | 2.457 | 2.870 |
| TGARCH | 2.322 | 2.416 | 2.618 | 2.410 | 2.556 | 2.640 | 2.658 | 2.640 | 2.503 | 2.643 |
| NGARCH | 1.850 | **1.765** | 1.808 | 2.091 | 1.988 | 1.956 | 2.056 | 2.008 | **1.618** | 1.986 |
| NAGARCH | 2.211 | 2.425 | 3.027 | 2.322 | 2.712 | 3.058 | 3.155 | 3.039 | 2.553 | 3.056 |
| **EURO** | | | | | | | | | | |
| sGARCH | **1.801** | **1.847** | 2.174 | 1.903 | 1.948 | 2.312 | 2.226 | 2.128 | **1.741** | 2.188 |
| eGARCH | 2.303 | 2.287 | 2.357 | 2.303 | 2.348 | 2.454 | 2.436 | 2.407 | 5.042 | 2.437 |
| gjrGARCH | 2.205 | 2.207 | 2.229 | 2.149 | 2.220 | 2.375 | 2.355 | 2.242 | 2.349 | 2.328 |
| apARCH | 2.325 | 2.287 | 2.293 | 2.298 | 2.298 | 2.319 | 2.302 | 2.295 | 2.341 | 2.307 |
| iGARCH | 2.024 | 2.109 | 2.492 | 2.188 | 2.286 | 2.704 | 2.787 | 2.639 | 5.673 | 2.658 |
| csGARCH | 4.201 | 4.142 | 4.054 | 4.501 | 4.424 | 4.253 | 4.358 | 4.395 | 3.919 | 4.331 |
| fiGARCH | 4.426 | 4.389 | 3.931 | 4.238 | 4.642 | 4.254 | 4.389 | 4.534 | 4.393 | 4.430 |
| AVGARCH | 2.251 | 2.230 | 2.237 | 2.218 | 2.241 | 2.270 | 2.259 | 2.253 | 2.318 | 2.268 |
| TGARCH | 2.303 | 2.270 | 2.282 | 2.274 | 2.282 | 2.313 | 2.294 | 2.281 | 2.336 | 2.299 |
| NGARCH | **1.906** | 2.016 | 2.416 | 2.013 | 2.087 | 2.461 | 2.368 | 2.267 | **1.789** | 2.331 |
| NAGARCH | 2.300 | 2.296 | 2.283 | 2.248 | 2.303 | 3.349 | 3.268 | 3.058 | 2.411 | 3.251 |
| **BIST 100** | | | | | | | | | | |
| sGARCH | 2.884 | 2.832 | 2.799 | 2.892 | 2.834 | 2.799 | 2.804 | 2.810 | 2.816 | 2.804 |
| eGARCH | 3.143 | 3.127 | 3.116 | 3.159 | 3.148 | 3.126 | 3.141 | 3.137 | 17.034 | 3.134 |
| gjrGARCH | 2.943 | 2.813 | **2.623** | 2.923 | **2.606** | **2.612** | **2.609** | **2.604** | **2.606** | **2.607** |
| apARCH | 3.035 | 2.953 | 2.828 | 3.008 | 2.931 | 2.811 | 2.817 | 2.813 | 2.814 | 2.805 |
| iGARCH | 3.102 | 3.036 | 2.987 | 3.146 | 3.057 | 2.995 | 3.020 | 3.016 | 2.725 | 3.004 |
| csGARCH | 2.727 | 2.677 | **2.642** | 2.725 | 2.675 | **2.640** | **2.647** | 2.657 | **2.654** | **2.648** |
| fiGARCH | 3.072 | 3.015 | 2.969 | 3.106 | 3.033 | 2.976 | 2.996 | 2.997 | - | 2.985 |
| AVGARCH | 3.012 | 2.861 | 2.951 | 3.030 | 2.924 | 3.154 | 3.155 | 2.958 | 2.972 | 2.978 |
| TGARCH | 3.036 | 2.970 | 2.891 | 3.011 | 2.952 | 2.881 | 2.881 | 2.923 | 2.864 | 2.871 |
| NGARCH | 3.035 | 2.896 | 2.837 | 3.017 | 2.891 | 2.833 | 2.841 | 2.851 | 2.873 | 2.841 |
| NAGARCH | 3.197 | 3.169 | 2.951 | 3.190 | 3.177 | 3.171 | 2.994 | 2.943 | 3.055 | 3.172 |

# THE RELATIONSHIP BETWEEN SOCIALIZATION PROCESSES IN HOSPITALITY BUSINESSES AND ORGANIZATIONAL SOCIALIZATION TACTICS

CHAPTER

24

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## INTRODUCTION

Socialization processes performs duty of connection between organization and employee. On the one hand, a business is transferring its organizational culture to its employees by means of applied organizational socialization tactics; on the other hand, employee obtain organizational culture via one or couple of the applied organizational socialization tactics based on their personality characteristics. Whichever, the socialization processes is used to transfer the culture, the important thing is transmission of their culture.

All of the socialization processes provide transmission of the organization culture to the employees. However, each one of the socialization processes causes different effect on employees individually. While, an employee who is experiencing obedience process adopt the organizational culture, because it is mandatory; another employee who is experiencing internalization process adopts the organizational culture with his own freewill. The employees who adopt the organizational culture through internalization process may feel more comfortable than the other employees who adopt organizational culture through other processes, because employees embrace organizational culture by themselves through internalization

### Processes of Socialization

Socialization processes which can be referred with different terms in the literature can be possibly separated into four different groups such as; imitation, obedience, identification, and internalization according to its characteristics (Doğan, 1987).

**Imitation:** Imitation is observing a person's behavior and then trying to copy the person's actions. Imitation has significant importance while transferring culture from one generation to another; and learning special behaviors such as occupational skills. One of the essential processes of socialization is imitation (Doğan, 1987). A person imitating other people's behavior feels comfortable and secure, because he performs actions without questioning and reasoning, since this way is more convenient or he is afraid of being criticized. Therefore, he is relieved from the responsibility of decision (Başaran, 2000). Imitating has a significant place in socialization. Individuals, especially children imitate actions of some certain people in groups during their socialization. Some individuals interpret the behavior of their role models in general and they always act in this way (Hay et al., 1985). Workers in organizations do observe other coworkers' actions. These observations are especially on workers who perform the same duties with the observing worker. Individuals in organizations are constantly in relation with their coworkers. These relations and observations are of great

importance to employees. The observing worker develops himself/herself through the observation. When skills of employees are not sufficient for a specific duty, they turn to the people whom they imitated previously; thus, they solve their problem easily (Weiss and Rakesraw, 1999). According to Bandura (1977), individuals learn by imitating the ones they observe. Individuals observe other individuals and imitate what they do; and they cognitively process these imitations then use it to achieve results. Bandura's social learning theory based on imitation is highly considered in organizational socialization studies. Employees imitate their managers' leadership behaviors. The basic reason for the similarity in leadership characteristics of high and low rank managers is imitation (Adler, 1983).

*Identification:* Individuals establish transparent connections with the social group that they are in or with any individual in the society; and they see themselves as one of them or directly as one of the simulant or same of them. This effort to resemble specific corporate or private source is called identification (Usal and Kuşluvan, 2000). During the occurrence of socialization, interaction of individuals in a group is important. Identification can emerge as a result of this interaction. Identification is the resemblance of an individual's behaviors to some others (Dager, 1971). According to Kelman, people, sometimes join groups exteriorly and sometimes participate internally. Thus, attitudes of individuals may vary. Kelman says that variation in human behaviors and attitudes might be a result of identification of individuals with group (Wren, 1999). Identification emerges as a result of individual's acceptance of an effect. The reason for individual acceptance is the satisfactory relationship that is developed by themselves with other individuals or groups. In this relationship, individual takes over, the role of the other individuals. Thus, mutual role relationships can be developed (Kelman, 1958). Ashforth and Saks (1996) state that 'there is positive relationship between the organizational socialization tactics and organizational identification'. Researchers claims that organizational socialization comprises of learning of organizational culture; and that this learning supports identification. Based on their study, Yi and Uen (2006) determined a positive relationship between organizational socialization and organizational identification. Organizational identification motivates individual in achieving the targets of the group. Particularly, there are significant relationships among organizational identification and job satisfaction, role behavior and turnover rate (Dick et al., 2008). Furthermore, there are also relationships among organizational identification and organizational performance, organizational citizenship. Identification also affects organizational loyalty. Leaders provide role model for employees. Employees can behave similar to them so that they learn the process faster and better (Epitropaki and Martin, 2005).

**Obedience:** This is exhibition of a total compliance to social leaders, any person, social principles, dominant culture, social targets, general tendencies or decisions etc. without any questioning, probing, and criticizing (Usal and Kuşluvan, 2002)**.** Obedience is a behavior that occurs when individuals answer to the authority of a person. When an individual in a group or a society does not accommodate the rules or codes of that social group, they cannot survive much longer in that society. Although, obedience is considered as a negative issue in general, the real negative issue is destructive obedience. When people exhibit negative manner toward a dictated rules, the destructive obedience occurs (Bordens, 2000). Authority is employees' obedience to the job-related orders from higher level positions in an organization (Gödek, 2006). In an organization, it is required that people at managerial positions must have determined authority to manage the people under them. The employees of an organisation that work under their managers have to be obedient to the orders or directives from the managers; otherwise they may be issued a query letter (Doğan, 1995). To comprehend the relationship between subjective and objective appearance of authority, Barnard (1938) suggests the zone of indifference theory. In many organizational communications, obedience which is based on trust is a psychological mechanism without conscious. Zone of indifference exists for everyone. In the case of given orders' falling into the zone of indifference means obedience to these orders without any inquiry (Nam and Lemak, 2007). Obedience of low rank employees to higher level ones is an inevitable situation for smooth operation within every organization. In an organization where there is no obedience, there may not be functions of coordination and inspection. However, obedience has a certain limit (Fitch and Saunders, 1976). Employees of an organization exhibit obedience only to the orders which seem correct for them. For instance, an employee who was given an order against the organization's interest may not comply with this order. Waren (1968) investigated two sorts of obedience as attitudinal and behavioral in one of his studies. The attitudinal obedience requires lower ranks to obey higher ranks' orders and demands. On the other hand, in terms of behavioral obedience, low ranks follow the order of higher ranks because of the necessity (Rahim and Afza, 2001).

**Internalization:** In some instances, an individual obey the group's opinion and behaviors, because he/she thinks that they are rational. This type of obedience is called internalization (Kocacık, 1989). Through internalization, an individual can be a real member of a group because; individual integrates his internal value system with group's value. An individual can internalize the knowledge obtained through identification (Meissner, 1998). Internalization is an important socialization process of humans for their comprehension and adaptation in the socialization (Rogers, 2003).

Internalization occurs mostly when communication exists between individuals. Internalization comes ahead in socialization as a process in it. An individual will come together with other individuals through socialization; then they will find common ground between their targets. To accomplish these targets, individual will internalize the behavior of the group (Bagozzi and Lee, 2002). By means of internalization experienced in organizations, overtime shifts, missed annual holidays weekends, unfair promotions or bitter criticisms can be overcome (Bülbül, 2007).

## Organizational Socialization Tactics

It was observed from literatures that many scientists supported organizational socialization tactics suggested by Van Maanen and Schein (1979). In the hypothetical explanation suggested by Van Maanen and Schein, they emphasized how the socialization tactics affect the role guidance. According to the hypothesis of these scientists, the new employees react in different way to their new roles because socialization tactics used by organizations forms knowledge received by the new employees (Jones, 1986).

Jones (1986), in one of his studies, claims that there are two different organizational socialization types that occur as a result of applied organizational socialization tactics. As a consequence of collective, formal, sequential, fixed, serial and investiture tactics, institutionalized organizational socialization occur as consequence of individual, informal, random, variable, disjunctive, and divestiture tactics whereas, individualized organizational socialization occurs.

The purposes and their explanation of organizational socialization tactics propounded by Van Maanen and Schein (1979) are presented below.

**A-Collective versus Individual:** In this organizational socialization tactic, new individual participations to the organization will be given experiences as group or each by each (Saks et al., 2007). In the collective tactics, new participators perform learning in groups. They act in standard behavior in case of certain situations and gain experiences. In the individual socialization applications, each employee performs leaning experience alone. Individual tactics create different opportunities for individuals (Jones, 1986). Training type applied in individual tactics is on-site training similar to the apprenticeship training (Maanen and Schein, 1979).

**B- Formal versus Informal:** For the new individuals who are already joining the organization, beside the employees already working at that level, a regular socialization experience must be provided to this new-comer in the formal tactic. In many organizations, applying the collective means applying the formal tactics in the meantime. Formal socialization tactics

are applied when there are too many differences between cultures and when the current job carries great risk for the new and experienced employees, customers and organization (Çalık, 2003).

**C- Sequential versus Random:** In the sequential organizational socialization, employees are given fast and continued information. While they are trained about the duty which will be assigned to them; it is provided that they learn totally the value, codes and attitudes composing the organizational culture. During this process, some employees learn some information even without noticing this fact. This case is called random socialization. Owing to sequential and random socialization, a new employee is given the required information about his career within the organization. In sequential tactics, the new-comer employee is given information about operations so that they become a member of the organization (Kartal, 2003).

**D- Fixed versus Variable:** Fixed socialization processes provide information to an employee about how long it takes to complete a step in the career path. In the variable tactics, the length of the period is not provided to an employee. Time of the period is standard. In the variable socialization tactics, the right thing to do for a worker may not be the right thing for another worker. Employee should find the correct one for himself (Maanen, 1978).

**E- Serial versus Disjunctive:** This is a tactic about whether there are experienced employees performing the same tasks and whether they are working as a role model or not. In the serial, a worker or a supervisor is made to be role model for an employee who newly joins the organization. The serial tactic is a process in which experienced workers train and prepare the new workers joining the organization. Employees with organizational experience perform role model duty for the new employees joining the organization. On the other hand, the disjunctive tactic is the one without role model for the new participating workers. In this tactic, the new ones cannot learn from the experienced workers (Çalık, 2003).

**F- Investiture versus Divestiture:** When a new duty develops the image of a person, the investiture takes place. This is supporting and an approval. On the other hand, divestiture takes place if supporting and approval do not occur (Hart, 1991). In the socialization process, approval of the new employee's identity is called investiture; taking his identity is called divestiture (Baker, 1992). Investiture versus divestiture tactics is relevant to positive or negative reactions of the old experienced employees for the newly introduced employees after starting the job. Thus, investiture versus divestiture tactics is the appearance of the personal or social relationship through socialization process (Jones, 1986).

## Purpose and Significance of the Research

The basic purpose of this study is to present the relationship between the socialization processes experienced by the employees recruited by hospitality businesses and the applied organizational socialization tactics. Under this basic purpose, among the sub-targets of the study, we tried to determine which one of the socialization processes is experienced most by the employees; and which organizational socialization tactics are applied within organizations. Even though, people establish their socialization in a society, they are required to embrace the culture formed within the organization. Since the time individuals join in an organization, they gain different cultural values that belong to that organization, codes, beliefs, behavior stereotypes through organizational socialization. This situation does not only take place when new employees join an organization, because organizational socialization continues all along employees' work life as innovation and developments take place in organizations; and as employees continue to learn new information while they are changing their departments. Organizational socialization of each employee happens through different socialization processes. While they are living their socialization processes, they are being affected by the socialization tactics applied in the organizations. Through organizational socialization tactics applied in organizations, employees experience different socialization processes. This study is important since it exhibits the relationship between socialization tactics and socialization processes.

## Research Method

This study exhibit the relationship between the socialization processes and organizational socialization tactics experienced by the employees working in the hospitality businesses operating in Kuşadası, both definitive and joint relationship design were used. In this research, the survey method was used to collect data. Arranged survey form consists of two sections. The first section of the survey includes scale relevant with the socialization processes. To determine the elements of the scale, we investigated other scales developed to consider socialization processes. While the scale was being developed, other scales below were employed:

- The scale developed by Roccas (2003) and previously used by Ceylan and Özbal (2008).

- The scale developed by Mael (1988) and used by Özdemir (2007).

- The scale developed by Mael and Ashforth (1992) and used by Tüzün (2006).

- The scale developed by Balay (2000) and used by İrban (2004).

- The scale developed by O'Reilly and Chatman (1986) and used by Caldwell, Chatman and O'Reilly (1990).

- The scale developed by Cheney (1983) and used by Gautam, Dick and Wagner (2004).

- The scale developed by Smith and et al. (1983) and used by Dyne, Graham and Dienesch (1994).

- The scale developed by Mael and Ashforth (1992) and used by Dick et al. (2008).

Beside these scales, an element pool was created by taking advantage of specifications of obedience, imitation, identification and internalization. In the element pool of socialization processes, there were 78 elements. Expressions in the element pool were investigated punctiliously; expressions with same or similar meaning are dismissed and number of expression was decreased to 68. These expressions were arranged by the three professionals in sociology and tourism area, and finally, the number of expressions scaled was reduced down to 60. To control the clarity of these expressions, assistance of a language specialist from Official Turkish Language Institution was applied employed and these expressions checked, arranged and finalized for the preliminary test. Expressions arranged for the pre-test are scaled based on five point Likert scale (Strongly Disagree=1, Disagree=2, Not Sure=3, Agree=4, Strongly Agree=5). The scale was applied to 105 people randomly selected from the universe.

The second section of the inquiry form is composed of the questions about organizational socialization tactics. For this section, the scale developed by Jones (1986) was used. In this scale developed by Jones under the concept of Van Maanen and Schein (1979), 6 factors determined the organizational socialization tactics. Arithmetic averages of the given answers according to the organizational socialization tactics scale constitute a significant indicator for the types of applied organizational socialization tactics. Based on this scale; if the arithmetic averages of the answers is between 1 and 2.84, it can be deduced that institutionalized organizational socialization tactics is applied; if the arithmetic average is between 2.85 and 5, it can be deduced that individualized organizational socialization tactics is applied. The scale was created based on five point Likert scale (Strongly Disagree=1, Disagree=2, Not Sure=3, Agree=4, Strongly Agree=5).

In the study, purposeful sampling which is one of the deterministic sampling methods was used as a sample selection method. The universe of the

study is determined as 4 and 5 star hotels operating in Kuşadası. Totally, 28 businesses were included in the study.

Number of sampling is determined uniquely for each business proportional to the number of their employee in those businesses. For fill out process of the inquiry forms, one week period of time is permitted for businesses; then it is checked whether the forms were completed or not over the phone or by site-visit. 439 of the 755 distributed inquiry forms were returned. However, as a result of considerations, it was seen that 14 of them were inadequate for further investigation. Then analysis was performed based on a total of 425 inquiry forms.

## Reliability and Validity of the Scale of Organizational Socialization Processes

In our study, reliability of the scale of organizational socialization processes was measured based on Cronbach Alfa coefficient. The reliability of the scale that includes 60 expressions was measured as .917. This value indicates that the selected scale is highly reliable for the study (Özdamar, 1999).

For the validity of the scale, structure validity was considered in the study. The validity of the structure shows scale's measuring capacity for an abstract concept in terms of the behavior that is desired to be measured. In the social sciences, factor analysis is frequently used to investigate the structure validity of the scale during the scale development stage (Büyüköztürk, 2003). In our study, factor analysis was performed for the structural validity of the organizational socialization processes scale.

To find out the factors that belong to employees' organizational socialization processes, the factor analysis were performed on the collected data according to the basic components and varimax transformation. From the factor analysis performed to measure the structural validity of the scale of the organizational socialization processes, the expressions with variance below 0.50 were discarded from our analysis. Another important subject in the factor analysis is that the factor values must be at least 0.50 (Kalaycı, 2005).

From the factor analysis performed in the study, the expressions with factor values below 0.50 were discarded. As a result of the factor analysis, there are 16 expressions with common factor variance and factor value over 0.50 was left. For the adequacy of the 16 expressions rest to the factor analysis, scale reliability was measured with Cronbach Alfa and this value was found as .867 which shows that this scale is reliable for our analysis (Nunnally 1978). When we look at the correlation matrix, it can be observed

that correlation coefficients between the variables under the factors vary from 0.391 to 0.797. Since the sampling qualification value is 0.823 as a result of the Keyser-Meyer-Olkin test, this value was found to be the appropriate value for the factor analysis (Hair et al., 1995). For the qualification of the correlation matrix and its significance level, Bartlett's spherically test was used. Qualification and significance level of the correlation matrix were found to be the 576.022 and 0.000; and these values were considered acceptable to perform factor analysis.

According to the results of the factor analysis performed, all of the common factor variances are at least .569; and all of the factor load values are at least 0.622. During the analysis of data, varimax rotation was employed. In the factor analysis, the data whose Eigen values are greater than 1 were taken into consideration. When we look up the factor matrix, we see that expressions (variables) were grouped under 4 factors; and it explains 66% of the total variance of these 4 factors. The fact that this value is above the 50% prohibits taking the number of factors as 4. These values show that 4 factors can explain the variance explained by the 16 expressions (variables). In consequence of the performed factor analysis, it was observed that under the 1st factor, there are 6 expressions that were relevant with identification process; under the 2nd factor, there are 4 expressions that were relevant with the imitation; under the 3rd factor, there are 3 expressions that were relevant with internalization; and under the 4th factor, there are 3 expressions that were relevant with obedience. The reliability coefficients of the factors were determined with the Cronbach alpha. These coefficients were determined to be .880 for the identification factor; .730 for the imitation factor; .706 for the internalization factor; and .647 for the obedience factor. All of these values are in the acceptable reliability range.

### Findings about Experienced Socialization Processes

Consideration of the findings that is relevant to the socialization processes were performed by taking averages of the expressions in the processes. However, while taking averages, answers of participators that neglects any question in the entire process were not considered in the calculation because, expressions in socialization processes represent processes as a whole. For example, obedience process consists of 3 expressions..

The socialization processes of the employees in the 4- and 5-star hospitality businesses in Kuşadası were determined by a total of 16 expressions. The implemented reliability of the scale after the preliminary test was tested with Cronbach Alfa; and the general reliability of the scale was determined as 0.91. This result shows that the scale is highly reliable for our study. Apart from this, reliability of dimensions in the scale was calculat-

ed. The reliabilities of the considered dimensions of obedience, imitation, identification and internalization were found to be 0.62, 0.75, 0.89 and 0.70 respectively. Reliabilities of all dimensions were within the desired reliability range.

**Table 2:** *Experiencing Level of the Socialization Processes*

| | Level of Socialization Processes | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| | Identification Process | Internalization Process | Imitation Process | Obedience Process |
| **N** | 416 | 415 | 409 | 411 |
| **Missing Values** | 9 | 10 | 16 | 14 |
| **x̄** | 4.15 | 3.82 | 3.79 | 3.58 |
| **SS** | .948 | 1.024 | 1.028 | 1.096 |
| **General Total Value** | 1728 | 1586 | 1549 | 1471 |

From table 2, we observe that an average of the answers of the participators' to the socialization processes is considerably close. Besides, the identification process (4.15) was experienced at the 1st place. Then, this is followed by internalization process (3.82), imitation process (3.79) and obedience process (3.58) respectively.

**Findings about Organizational Socialization Tactics**

The importance of the organizational socialization tactics is great for both organizational socialization and organizational touristic socialization experienced in businesses. Therefore, through the organizational socialization tactics scale developed by Jones (1986), organizational socialization which are being used in both organizational socialization and organizational touristic socialization tactics by the 4- and 5-star hospitality businesses located in Kuşadası are determined. The reliability of the scale was tested by the Cronbach Alfa; and it was determined to be 0.94 in general. This result shows that the scale is quite reliable for our study. In addition to this, reliabilities of all dimensions used in the scale were calculated. Reliability of the collective versus of the individual dimension was found to be 0.81, formal versus informal dimension's reliability was found to be 0.75, investiture versus divestiture dimension's reliability was found to be 0.74, sequential versus random dimension's reliability was found to be 0.81, serial versus disjunctive dimension's reliability was found to be 0.73, and fixed versus variable dimension's reliability was found to be 0.79. Reliability of all dimensions is within the expected confidence interval.

Organizational socialization tactics of the 4- and 5-star hospitality businesses in Kuşadası were considered according to their averages according

to Jones (1986). If the averages of the answers of participators fall between 1 and 2.84, then this means that institutionalized socialization tactics are being applied in that business; if the average falls between 2.85 and 5, this means that individualized socialization tactics are being applied.

**Table 3:** *Organizational Socialization Tactics*

| Organizational Socialization Tactics | | N | Percentage | | X | SS |
|---|---|---|---|---|---|---|
| **Collective versus individual** | 1-2.84 | 60 | 20 | Institutionalized | 3.79 | .96 |
| | 2.85-5 | 344 | 80 | Individualized | | |
| **Formal versus informal** | 1-2.84 | 99 | 25 | Institutionalized | 3.54 | .97 |
| | 2.85-5 | 298 | 75 | Individualized | | |
| **Investiture versus Divestiture** | 1-2.84 | 70 | 18 | Institutionalized | 3.64 | .95 |
| | 2.85-5 | 326 | 82 | Individualized | | |
| **Sequential versus random** | 1-2.84 | 93 | 23 | Institutionalized | 3.54 | .99 |
| | 2.85-5 | 308 | 77 | Individualized | | |
| **Serial versus Disjunctive** | 1-2.84 | 143 | 36 | Institutionalized | 3.36 | .99 |
| | 2.85-5 | 258 | 64 | Individualized | | |
| **Fixed versus variable** | 1-2.84 | 105 | 26 | Institutionalized | 3.51 | 1.01 |
| | 2.85-5 | 286 | 74 | Individualized | | |

From table 3, average of all organizational socialization tactics is greater than 2.85. When we consider each organizational socialization tactic, it is observed that the applications toward individualized socialization occurred in all organizational socialization tactics.

### Findings about Relationship between Organizational Socialization Tactics and Employees' Experience of Socialization Processes

The hypothesis to analyze whether there is relationship between organizational socialization tactics applied in businesses and employees' experience of socialization process are shown below:

$H_0$: There is no relationship between organizational socialization tactics applied in businesses and employees' experience of socialization processes.

$H_1$: There is relationship between organizational socialization tactics applied in businesses and employees' experience of socialization processes.

While the significance level in the correlation test shows that when the relationship between variables is statistically significant; correlation coefficient shows the strength of the relationship. In social sciences, if correlation coefficient falls between 0 and 0.30, it indicates weak relationship; if it falls

between 0.30 and 0.70, it indicates a medium relationship; and if it falls between 0.70 and 1, it indicates significant relationship (Büyüköztürk, 2003).

**Table 4:** *The Relationship between Organizational Socialization Tactics Applied in the Businesses and Socialization Processes*

|  |  | **Obedience** | **Imitation** | **Identification** | **Internalization** |
|---|---|---|---|---|---|
| Collective versus individual | Rho | .464** | .462** | .527** | .534** |
|  | P | .000 | .000 | .000 | .000 |
| Formal versus informal | Rho | .515** | .444** | .404** | .471** |
|  | P | .000 | .000 | .000 | .000 |
| Investiture versus divestiture | Rho | .496** | .429** | .391** | .523** |
|  | P | .000 | .000 | .000 | .000 |
| Sequential versus random | Rho | .477** | .445** | .430** | .515** |
|  | P | .000 | .000 | .000 | .000 |
| Serial versus disjunctive | Rho | .388** | .263** | .211** | .296** |
|  | P | .000 | .000 | .000 | .000 |
| Fixed versus variable | Rho | .379** | .332** | .282** | .375** |
|  | P | .000 | .000 | .000 | .000 |
| **\*\*.** Correlation is significant at the level of 0.01 | | | | | |
| **rho** =Spearman Correlation Coefficient **p**=Level of Significance | | | | | |
|  |  |  |  |  |  |

Results of the Spearman correlation test which was performed to determine whether there is relationship between organizational socialization tactics applied in businesses and employees' experience of socialization processes were given in the table 4. From table 4, it was observed that there is statistically significant relationship between all organizational socialization tactics applied in businesses and employees' experience of all socialization processes (all p probability values are less than 0.01).

The relationship between all organizational socialization tactics and obedience process is middle level relationship (.30< rho <.70). The relationship between serial versus disjunctive tactics and imitation process is low (0< rho <.30); the relationship between other organizational socialization tactics and imitation process is middle level (.30< rho <.70). There is low level of relationship between serial versus disjunctive and fixed versus variable tactics (0< rho <.30); the relationship between other organizational socialization tactics and identification process is middle level (.30< rho <.70). The relationship between serial versus disjunctive tactics and internalization process is low (0< rho <.30); the relationship between other

organizational socialization tactics and internalization process is middle level (.30< rho <.70). When we consider the correlation coefficients, we observe that there is positive relationship between socialization processes and organizational socialization tactics. According to this, it is possible to say that as the points of organizational socialization tactics increases, experience of the processes will increase; or on the contrary, as the points of organizational socialization tactics decrease experience of the processes will decrease.

## RESULTS AND SUGGESTIONS

For the employees of the hospitality businesses that are included in the sampling, it is significant finding the fact that they first experienced the identification process; followed by the internalization process during both periods of learning the organization culture and accommodating to the organization. There is no place for monotony in hospitality businesses; and they are always in working status. Furthermore, hospitality business requires their employees always to work face to face with people. With this characteristic, hospitality businesses can be attractive for employees. One of the significant characters of identification is that identification of individuals is attractive. Therefore, hospitality businesses in Kuşadası may experience identification at the first place.

When the averages of the processes are taken into consideration, it was discovered that the experience of the processes are quite close to each other. This situation might be as a result of employees with different personality characteristics. Employees with diverse personality characteristics might be experiencing different processes. Similarly, the existence of various departments and different managers in those departments may cause employees to experience different process, because behaviors of managers from different departments toward employees from another department could differs.

It was observed that, tactics toward the individualized socialization have been mostly applied. Based on this situation, according to dimension of collective versus individual organizational socialization tactic, it can be considered that socialization of the employees in the 4- and 5-star hospitality businesses in Kuşadası is being provided individually. Based on the formal versus informal organizational socialization tactic, employees in 4- and 5-star hospitality businesses in Kuşadası might have been exposed to irregular socialization experience together with the current members of those businesses. Based on the investiture versus divestiture organizational socialization tactic, the point of view that employees in the 4- and 5-star hospitality businesses are not approved by other employees prevails. Ac-

cording to the dimension of sequential versus random organizational socialization tactic, employees in the 4- and 5-star hospitality businesses in Kuşadası might be learning some information in the business without noticing this fact. According to dimension of serial versus disjunctive organizational socialization tactic, it is thought that there is no role model for the employees in the 4- and 5-star hospitality businesses in Kuşadası; and that employees cannot follow other experienced employees. According to the dimension of fixed versus variable organizational socialization tactic, the consideration such that "employees in the 4- and 5-star hospitality businesses in Kuşadası are not given information about how soon their duty will be completed" can be drawn.

It was found that there is significant relationship between the organizational socialization tactics and socialization processes experienced by employees. According to these relationships, it was observed that the obedience process is more related with formal versus informal tactic; imitation, identification and internalization is more related with collective versus individual tactic.

The existence of a relationship between the socialization processes and the organizational socialization tactics is an expected situation, because businesses provide their employees to experience socialization process through socialization tactics. According to correlation coefficients, it is observed that obedience is more relevant with formal versus informal tactic; imitation, identification and internalization are more relevant with collective versus individual tactics. When it is considered that the usage of individualized socialization tactics increased, then we can talk about the existence of a relationship between informal socialization tactics and obedience. Employees who are experiencing obedience process survive this process as a result of certain pressure. In the formal versus informal tactic, employees experience an irregular socialization together with other workers in the organization. Hospitality businesses are quite dynamic. Especially, since they recruit only for a season, employees do not have chance to socialize together apart from the work place. Thus, employees socialize in the work environment irregularly. During this socialization, there are certain pressures on the employees working under managers, because they only pass the organizational culture to the employees by means of obedience. Therefore, relationship may arise between obedience and informal socialization tactic. Since individualized socialization tactics are being applied in the collective versus individual tactics, employees are exposed to socialization experience one after the other. Since employees are exposed to socialization experience, it is quite natural during the socialization process that they imitate people who are already on duty; they identify them or internalize what they have learned.

This study also brings some limitations and suggestions with it. It is expected that this study will be starting point for other researches, and accelerate these researches. In this study, the fact that which one/ones of the socialization processes had been experienced most was exhibited. In the further studies, several management/behavior subjects such as organizational loyalty, organizational motivation, organizational efficiency, job satisfaction, organizational performance, organizational conflict, organizational stress; and their relationship with socialization processes which constitutes their foundation can be presented. This study was performed in hospitality businesses. Beside the hospitality businesses, the study can be performed in different tourism businesses such as travel agencies, food and beverage businesses.

# REFERENCES

Adler S. (1983), Subordinate Imitations of Supervisor Behavior: The Role of Supervisor Power and Subordinate Self-Esteem, *Social Behavior and Personality,* 11(2), 5-10

Bagozzi R. P. ve Lee K. H. (2002) Multiple Routes for Social Influence: The Role of Compliance, Internalization, and Social Identity, *Social Psychology Quarterly*, Vol. 65, No. 3, 226-247

Baker H. E. (1992) Employee Socialization Strategies and the Presence of Union Representation, *Labour Studies* Journal Spring (1992)

Başaran İ. E. (2000) *Örgütsel Davranış İnsanın Üretim Gücü,* Feryal Matbaası, Anakara

Bordens K. S. (2000). *Social Psychology*, Lawrence Erlbaum Associates, Incorporated, USA

Bülbül M. (2007) *Örgütsel Baglılık Ve Kamu Kuruluşlarına Yönelik Araştırma*, Yüksek Lisans Tezi, Kahramanmaraş Sütçü İmam Üniversitesi Sosyal Bilimler Enstitüsü, Kahramanmaraş

Büyüköztürk Ş. (2003) Sosyal *Bilimler İçin Veri Analizi El Kitabı İstatistik, Araştırma Deseni SPSS Uygulamaları ve Yorum*, Pegem A Yayıncılık, Ankara

Caldwell D. F. Chatman J. A. ve O'Reilly C. A. (1990) Building Organizational Commitment: A Multifirm Study, *Journal of Occupational Psychology*, 63, 245-261

Ceylan A. ve Özbal S. (2008) *Özdeşleşme Yoluyla Sadakat Oluşturma Üzerine Üniversite Mezunları Arasında Yapılan Bir Çalışma*, C.Ü. İktisadi ve İdari Bilimler Dergisi, Cilt 9, Sayı 1, 81-110

Çalık, Temel. (2003). İş görenlerin Örgüte Uyumu (Örgütsel Sosyalleşme), *Türk Eğitim Bilimler Dergisi*, 1(2), 163-177.

Dager E. Z. (1971). *Socialization Process, Product and Change*, Markham Publishing, USA

Dick R. V. Knippenberg D. V. Kerschreiter R. Hertel G. Ve Wieske J. (2008) Interactive Effects of Work Group and Organizational İdentification on Job Satisfaction and Extra-Role Behavior, *Journal of Vocational Behavior* 72 (2008) 388–399

Doğan H. Z. (1987), *İnsan Davranışları İnsan İlişkileri*, Uğur Ofset Matbaacılık ve Ticaret, İzmir

Doğan Muammer (1995), *İşletme Ekonomisi ve Yönetimi*, Anadolu Matbaacılık, İzmir

Dyne L. V. Graham J. W. ve Dienesch R. M. (1994) Organizational Citizenship Behavior: Construct Redefinition, Measurement, And Validation, *Academy of Managemenl Journal*, Vol, 37. No. 4. 765-802.

Epitropaki O. ve Martin R. (2005) The Moderating Role Of Individual Differences in The Relation Between Transformational/Transactional Leadership Perceptions and Organizational Identification, *The Leadership Quarterly* 16 569–589

Fitch H. G. ve Saunders C. B. (1976) Blowing The Whistle: The Limits Of Organizational Obedience, *Business Society vol. 17 no. 1, 5-14*

Gautam T. Dick R. V. ve Wagner U. (2004) Organizational Identification and Organizational Commitment: Distinct Aspects of Two Related Concepts, *Asian Journal of Social Psychology*, 7, 301–315

Gödek S. (2006), *Bürokratik Örgütlerde Yetki Devri, Balıkesir İl ve İlçe Belediyeleri Uygulaması,* Yüksek Lisans Tezi, Afyon Kocatepe Üniversitesi Sosyal Bilimler Enstitüsü, Afyonkarahisar

Hart A. (1991), Leader Succesion and Socialization: A Synthesis, *Review of Educational Research*, 61(4), 451-474

Hay D. F. Murray P. Cecire S. ve Nash A. (1985) Social Learning of Social Behavior in Early Life, *Child Development*, 56, 43-57

İrban H. (2004) *Jandarma Okullar Komutanlığı Öğretim Başkanlığı Personelinin İş Doyumu ve Örgütsel Bağlılıkları*, Yüksek Lisans Tezi, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara

Jones G. R. (1986) Socialization Tactics, Self-Efficacy, and Newcomers' Adjustments to Organızatıons, *Academy of* Management *Journal,* 29 (2), 262-279.

Kalaycı Ş. (2005) "Faktör Analizi", *SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri*, edit.: Ş. Kalaycı, Asil Yayın Dağıtım, Ankara

Kartal S., (2003), *İlköğretim Okulu Yönetici ve Öğretmenlerinin Örgütsel Sosyalleşme Düzeyleri*, Yükseklisans Tezi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü

Kelman H. C. (1958) Compliance, Identification, and Internalization: Three Processes of Attitude Change, *The Journal of Conflict Resolution*, Vol. 2, No. 1, 51-60

Kocacık F. (1989) Davranış Üzerinde Sosyal Etkiler, *Davranış Bilimlerine Giriş*, Ed: E. Özkalp, Anadolu Üniversitesi Web Ofset, Eskişehir

Maanen J. V ve Schein, E. H. (1979). Toward a theory of organizational socialization. *In Research in Organizational Behavior, Barry Straw*, Ed. 1, 209–264.

Maanen J. V. (1978) People Processing Strategies of Orgazitional Socialization, *Organizational Dynamics*, Summeri, 18-36

Meissner W. W. (1998). *To The Greater Glory: A Psychological Study of Ignatian Spiritualy*, Marguette University Press, USA

Nam D.İ ve Lemak D.J. (2007) The Whistle-Blowing Zone: Applying Barnard's Insights to a Modern Ethical Dilemma, *Journal of Management History* Vol. 13 No. 1, 33-42

Nunnally, J.C. (1978). *Psychometric Testing.* New York: McGraw-Hill.

Özdamar K. (1999) *Paket Programlar İle İstatistiksel Veri Analizi (Çok Değişkenli Analizler)* (2. baskı), Kaan Kitabevi Eskişehir

Özdemir H. Ö. (2007) *Çalışanların Kurumsal Sosyal Sorumluluk Algılamalarının Örgütsel Özdeşleşme, Örgütsel Bağlılık ve İş Tatminine Etkisi: Opet Çalışanlarına Yönelik Uygulama*, Doktora Tezi, Marmara Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul

Rahim M. A. ve Afza M. (2001) Leader Power, Commitment, Satisfaction, Compliance and Proşensity to Leave a Job Among U.S. Accountants, *The Journals of Social Psychology*, 133 (5), 611-625

Rogers W. S. (2003). *Social Psychology: Experimental and Critical Approaches*, McGrawHill Pub., USA

Saks A. M., Uggerslev K. L.ve Fassina N. E., (2007), Socialization Tactics and Newcomer Adjustment: A Meta-Analytic Review and Test of A Model, *Journal of Vocational Behavior* 70 (2007) 413–446

Tüzün İ. K. (2006), *Örgütsel Güven, Örgütsel Kimlik Ve Örgütsel Özdeşleşme İlişkisi; Uygulamalı Bir Çalışma*, Doktora Tezi, Gazi Üniversitesi Sosyal Bilimler Enstitüsü, Ankara

Usal A. ve Kuşluvan Z. (2000). *Davranış Bilimleri Sosyal Psikoloji*, Fakülteler Kitabevi, Barış Yayınevi, İzmir

Usal A. ve Kuşluvan Z. (2002). *Davranış Bilimleri Sosyal Psikoloji*, Meta Basım, İzmir

Weiss H. M. Suckow K. and Rakesraw T. L. (1999) Influence of Modeling on Self-Set Goals: Direct and Mediated Effects, *Human Performance*, 12 (2), 89-114

Wren K. (1999). *Social İnfluences*, Routledge, USA

Yi X. ve Uen J. F., (2006), Relationship Between Organizational Socialization and Organization Identification of Professionals: Moderating Effects of Personal Work Experience and Growth Need Strength, *Journal of American Academy of Business*, 10(1), 362-371

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# A METHODOLOGICAL PERSPECTIVE ON 21ST CENTURY PUBLIC POLICY ANALYSIS STUDIES

CHAPTER

25

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## INTRODUCTION

Public policy is a concept that arises in meeting of the demands of citizens, conducting public services and maintaining public order. On the other hand, public policy analysis refers to the analysis of the policies to be implemented in various ways with various tools. It is possible to come across many public policy studies in the literature on the policies produced before and will be produced in the future by governments in relation to all public services such as foreign policy, defense, housing, health and education.

Public policy analysis can be defined as a concept that associates the system analysis and the concept of policy in political meaning (Dror, 1967: 200). This analysis process is mainly perceived as using the scientific knowledge on political process and decision making Kraft and Furlong, 2018: 199) or "speaking truth to power" (Wildavsky, 1979). According to Kraft and Furlong (2018: 95), public policy analysis encompasses the collecting the necessary data to reveal the reasons of the effects of public problems, processing the data and producing and interpreting the qualified information. In the section of data collection and processing of the data obtained, the analysis of the policy may focus on different dimensions of the problem up to various disciplines. For example, while economists analyze the problem through economic transaction and decision-loss calculations, sociologists will analyze the effects of groups in society on the problem, and lawyers will analyze the legal aspects of the problem. Even if these analyses are mostly entitled the subject and agenda of decision makers, they are also on the focus point of researchers and academicians. Consequently, the number of public policy analysis researches is considerable and they take place in many prestigious scientific journals. It is intriguing that these studies are conducted in various data analysis approaches and data collection methods. To open the door of another methodological debate on public policy analysis topic, it is important to investigate whether a specific approach and a specific method are optimal for a specific policy in a specific field. For this end, this study methodologically examines the public policy analysis studies published in various prestigious journals (SSCI-indexed). In this context, in the study, 143 articles published in the mentioned journals between 2000-2019 were subjected to content analysis. The articles were coded and grouped into six main areas such as public administration policies, health policies, environmental policies, economic policies, education policies and information and communication policies. Together with the analysis, it was investigated which methods and data collection techniques were used to analyze the public policy analysis studies in these six areas.

## The Design of the Research

This section presents details about the design of the research. The study contains a systematic content analysis on related literature. The search was made in January, 2019. The researchers targeted peer-reviewed articles published in the 21st century and in high quality academic journals, indexed by Web of Science (WoS) of Clarivate Analytics. In this direction, the peer-reviewed articles which were published between in the years 2000-2019 and included a public policy analysis (and specified in the title) were searched in Web of Science Core Collection (WoSCC) Search Engine (v.5.31) in order to analyze the use of public policy analysis methods in these articles. A Boolean expression was conducted to determine the articles through WoSCC had "public policy" in "topic" section, "public policy analysis"" in "title" section and "English" in "language" section. At the end of the primary search, 231 related articles were found in total (proceeding chapters, book chapters and book reviews were excluded). Secondly, an examination was held in these 231 articles to detect the articles including a systemized public policy analysis. After all the search items were set, the researcher narrowed the list by refining the search quest by reading the abstracts, keywords and methodology chapters, and separated the articles as "related" and "unrelated". Thereafter, 186 articles particularly including a specific implemented policy analysis were determined as appropriate for the research and 143 of these articles were fully accessible for the researcher. Finally, fully accessible 143 articles are included for the analyze section. Thus, the selection criteria that used for the resulting 143 articles were that the studies should answer the research question as:

RQ1: What are the featured methodological characteristics of public policy analysis studies in the 21st century?

RQ2: How do public policy analysis methods vary in different policy fields?

RQ3: Do preferred methods concentrate on specific policies depending on their policy category?

For the analysis process, 143 articles were analyzed in Nvivo 12 qualitative research software. All related data was coded in Nvivo 12 using a descriptive/topical coding method (Saldana 2009). Firstly, main nodes were created as policy categories benefiting from WoS categorization system. Intertwined categories were amalgamated in main policy categories and 6 main policy categories were determined. After categorizing the articles in different policy fields, secondary nodes were created as analysis approaches under the public policy category nodes. Under each analysis approach coded, data collection methods were also coded as tertiary nodes

to specify the methodological characteristic of the articles. After setting the main framework of the content analysis in this way, the selected articles were repeatedly read by the researcher, particularly focusing on the policy field and the methodology included in the articles. For the final section of the process, "methodology" parts of the read articles were coded into related nodes one by one. Finally, emerged framework of the analysis was presented in Table 1 below.

**Table 1:** *Nodes created in Nvivo*

| Main Nodes | Public Policy Category | Public Administration Policies<br>Health Care Policies<br>Environmental Policies<br>Economy Policies<br>Educational Policies<br>I.T Policies |
| --- | --- | --- |
| Secondary Nodes | Analysis Approach | Qualitative<br>Quantitative<br>Mixed Methods |
| Tertiary Nodes | Method | Literature Review<br>Document Analysis<br>Interview<br>Discourse Analysis<br>Content Analysis<br>Comparative Analysis<br>Descriptive/Narrative Analysis<br>Statistics<br>Survey<br>Transaction Cost Analysis<br>Comparative Analysis<br>Meta Analysis<br>Secondary Data Analysis<br>Multimethod Analysis<br>Network Analysis |

According to main nodes, public administration policies category included the general public policies such as administrative policies, local government policies, urban policies, transportation policies, public communication policies, immigration policies and etc. Health care policies category represented all of the policies related to medicine, nursing, public health care and mental health issues. Environmental policies category contained of energy and climate change policies beside general environmental policies. Educational policies category included policies on education systems and implementations from primary to higher education and lastly, I.T.

policies category included all the policies on internet, technology, information systems. Secondary nodes identified the methodological approach of the public policy analysis and the tertiary nodes specified the data collection methods of the researches.

## Findings

143 articles were coded in this study to examine the methodological characteristic of public policy analysis studies published in the years between 2000-2019. After all the process of coding and analysing the articles divided in 5 main policy fields, the findings in the table 2 below were observed.

**Table 2:** *Cross-Tabled Frequency of Coded Articles*

| | | Articles Frequency (N) | | | | | |
|---|---|---|---|---|---|---|---|
| Methodology | | Public Policy Category | | | | | |
| Analysis Approach | Methods | PAP | HCP | ENP | ECP | EDP | ITP |
| Qualitative | Literature Review | 6 | 4 | - | 1 | - | 2 |
| | Document Analysis | 3 | 5 | - | - | 3 | - |
| | Interview | 2 | - | 1 | - | 1 | - |
| | Discourse Analysis | 1 | 2 | - | - | 2 | - |
| | Content Analysis | 1 | 3 | 1 | - | - | 1 |
| | Case Study | 2 | 4 | 2 | - | - | - |
| | Comparative Analysis | - | 1 | - | - | - | 2 |
| | Descriptive/Narrative Analysis | 4 | 3 | 1 | - | - | - |
| | **Total** | **19** | **22** | **5** | **1** | **6** | **5** |
| **Quantitative** | Statistics | 6 | 3 | 1 | 8 | 1 | 1 |
| | Survey | 5 | 8 | 2 | 2 | 1 | 1 |
| | Transaction Cost Analysis | - | 2 | - | 2 | - | - |
| | Comparative Analysis | 1 | 1 | - | - | 1 | - |
| | Meta Analysis | 1 | 1 | - | - | - | 1 |
| | Case Study | - | - | - | 1 | - | - |
| | **Total** | **13** | **15** | **3** | **13** | **3** | **3** |
| **Mixed** | Secondary Data Analysis | 2 | 9 | 1 | 2 | 1 | - |
| | Multimethod Analysis | 3 | 4 | 2 | 2 | - | 2 |
| | Network Analysis | 1 | - | 1 | - | - | 1 |
| | Case Study | 3 | 1 | - | - | - | - |
| | Total | 9 | 14 | 4 | 4 | 1 | 3 |
| | Categorical Total | 41 | 51 | 12 | 18 | 10 | 11 |
| | Articles Total Frequency (N) | 143 | | | | | |

**PAP:** Public Administration Policies, **HCP:** Health Care Policies, **ENP:** Environmental Policies, **ECP:** Economy Policies, **EDP:** Education Policies, **ITP:** Information Telecommunication Policies.

Presenting the findings divided in categories could provide a better understanding of the methodological characteristic of specific policy fields. Thus the findings were presented below as subtitles related the policy field they are coded in Nvivo. All the articles that were analysed in Nvivo were cited in the text.

## Public Administration Policies

This category contains general public policies that affects all citizens and made by local or central governments to arrange general public services such as administrative policies, foreign policies, social policies. 43 of articles were coded in public administration policies and most of these articles were designed in qualitative analysis approach. Literature review based policy analysis were determined as mostly used in qualitative research. Some of the articles usually presented different policy analysis using literature review (Muller, 2015; Heap and Dickinson, 2018; Hudson and Kühner, 2013) while some of them were discussing policy analysis methods mainly by supporting the claims with other articles (Saint Martin and Allison, 2011; Carlson, 2011; Peckover, 2014). Three of articles conducted their policy analysis on document analysis particularly analysing the regulatory policy documents (Holst and Moodie, 2015; Olesen and Karlsson, 2018; Hung et al, 2012). As similar analyse technic, Rafter et al. (2014) published an article conducting a content analysis of television and radio news programmes to examine the relationship between commercial orientation and policy-game framing. McLean's (2015) research that analyses the background of discourses, concepts and the terms included in Turkish Foreign Policy and dwelled on Turkish elite's statements, categorized in discourse analysis node. Using in depth interview method articles focused on territorial and local governmental policies (Portillo and Carrillo, 2015; Hazlett et al, 2012) in this category. This was a remarkable finding that there were just two qualitative case study oriented articles (Madero and Morris, 2015; Nilsson et al, 2008) and they analysed the public policy making process; participation and the tools. Four narrative/descriptive articles mainly analysed the public policy analysis in its components such as actors, decision making and analysis (Baird, 2013; Geva-May and Kfir, 2000; Hampton, 2009; Hermans and Thissen, 2009).

Statistics were detected as the most used method in quantitative policy analysis. The method was applied in various policy analyses labelled in different techniques such as risk analysis, path analysis, empirical analy-

sis and efficiency analysis (Castelar et al, 2015; Bedard, 2015; Matei and Dogaru, 2013; Marchetti and Wanke, 2017). On the other hand, it was also used in Analysis of two-tier public service systems and Policy analysis of third party electronic coupons for public transit fares (Chen et al, 2015; Chow, 2014). Secondly most use method in quantitative approach was survey analysis in the articles. Chen et al (2014) used this method in a case study on urban public transport choice behaviour analysis and Chung et al (2012) used it to figure out public discourse and acceptability analysis. In the first look, article titles could be misleading but after the content analysis of the articles, they were categorized in survey method used articles, by the researcher. The other articles used the method for general policy analysis and also multilevel analysis of various policy making process analyses (Pino and Ryzin, 2012; Lau and Heldman, 2009; Wagner et al, 2016). A comprehensive meta-analysis used in the article written by Hadani et al. (2017). They analysed US-only sample of 93 studies, working papers, and books in their research about corporate political activity, public policy uncertainty, and firm outcomes. Finally, Hooghe and Vroome (2015) conducted a quantitative comparative analysis on multiculturalist policies of European Countries.

Mixed methodology approach was also observed in the articles repeatedly. Voss et al. (2001) used internal migration data from decennial census sources, including published reports, Summary Tape Files, special migration tabulations, and Public Use Microdata Samples, as well as other migration data including decadal net migration estimates and Internal Revenue Service annual estimates in their analysis of Migration labelled as a case study. In other case studies Sert et al. (2017) used network analysis to analyse the transportation networks base in Konya and Kato et al. (2014) applied some tests to assess the feasibility of strategic transportation planning in Kanto region of Japan. Three of articles use mixed methods in their analysis of several different policies such as prison policy and regulatory policies (Chaney and Wincott, 2014; Desmarais and Hird, 204; Fonseca, 2015). An article with network analysis containing both empirical and text data U.S. Immigration, border security policy (Chung and Zeng, 2015) and another methodologically similar designed article analysing French public–private diversity and inclusion policies (Jardat and Labulle, 2018) were also determined in this category.

## Health Care Policies

Qualitative approach was detected as the mostly used approach in health care policy analysis studies. On the other hand, both quantitative and mixed methods approach were applied frequently as well. Studies varied on seven qualitative analysis methods. Document analysis, and literature

review methods were frequently referenced in the studies. Laws, decrees, ordinance documents (De Souza, 2018), key documents of health policies (Pinto et al, 2012; Kothari et al, 2013) and documents from government and public health-related organizations (Regan et al, 2014) were analysed in the articles to investigate the dynamics of policies on drugs, equity in public health standards, public health human resources and chronic disease prevention. Literature review based articles generally focused on the theoretical base of specific policy problems of health care (Raphael, 2014; Lohman, 2003; Asthana and Halliday, 2006; Breen et al, 2009; Rutten et al, 2013). Discourse analyses based articles usually targeted discourses from newspapers (Reitmanova et al, 2015), participants' interviews (Mulligan et al, 2012) and these articles subjected public health and immigrants' health care. It was determined that the policy analyses conducted with case studies (Anker and Glasgow, 2016; Winter and Winter, 2018; Dinour, 2015; Dinour et al, 2017) underlined sub-methods of case study, such as multi-case analysis and comparative case study. Another comparative analysis was conducted by Lubold (2017), on the effect of family policies and public health initiatives on breastfeeding initiation among 18 high-income countries. Three of articles which analysed nursing home policies (Syme et al, 2016), physical rehabilitation (Blanchet et al, 2014) and alcohol (Anglin et al, 2000), included content analysis method in their methodologies. Finally, a bibliographical narrative analysis of the boundary zone between science, policy and public debate (Rijswoud, 2010) and two descriptive/ narrative analyses on public elderly care policy and public health nutrition (Jacobsen, 2015; Bastian, 2011) were grouped in this category.

In the quantitative approach, survey method was determined as the most common used method in policy analysis. Three of articles focused on health care policies through sectoral base (Peters et al, 2017; Maiga et al, 2003; Collin et al, 2017) and two of the articles focused on disease based policies (Velan et al, 2013; Masotti et al, 2013). Two of the articles subjected research use in public health policy (Zardo and Collie, 2014; Warren et al, 2013) and one of them examined smoke-free policy implementation in Mexico and Uruguay (Thrasher et al, 2013). Cost-Effective analysis was used in two articles on public health care policy (Russel and Sinha, 2016; Foreword, 2008) and statistics were used in the articles included analyses of uncertainty, general-equilibrium and quality (Guo et al, 2018; Kelton and Rebelein, 2007; Gilbert et al, 2014). Lastly, a comparative analysis of health care policies in three countries (Macias Chapula, 2013) and a meta-analysis on Influenza Vaccination policy (Beck et al, 2011) were categorised in quantitative approach.

Mixed methods approach was mostly used in health care policies comparing the rest of policy categories. Particularly secondary data use in this

articles was very common. These articles which were varied specific topics of health care policies, used different collection methods such as secondary data analysis, document analysis, empirical data analysis, statistics categorized both in qualitative and quantitative approach (Kofke, 2014; Kaltoft, 2015; Michael, 2014; Neave et al, 2013; Wali et al, 2018; Nistal-Nuno, 2018; Januario et al, 2017; Gorman et al, 2014; Kibuule et al, 2017). Multimethod analysis based articles which compares date collected with different methods (Fast et al, 2014; Atkinson et al, 2015; Lysaght and Kerridge, 2012; Rosella et al, 2013) and an article included case study which imported involved data from interviews and secondary data resources (Milton and Grix, 2015) were also categorized in this title.

## Economy Policies

Qualitative approach was detected as the least preferred methodology option in economy policy analyses, as expected. Bansal and Aggarwal's (2017) article made a comparative analysis of legislative and judicial approaches by reviewing the literature and related juristic sources.

Most of quantitative articles included statistics in the collection and presentation of data. In several articles, statistics emerged in different ways such as game analysis (Hui, 2012), equilibrium analysis (Sangare and Maisonnave, 2018). Rest of the articles researching on fiscal, spending and redistribution and etc. policies included statistics by presenting analytical and economic formulas to analyse policies (Pensiero, 2017; Tanaka, 2003; Nasution and Wahyudi, 2017; Lin et al, 2018; Domeij and Ellingsen, 2018; Cannone and Ughetto, 2014). Survey technique based articles (Martinez et al, 2014; Pullman et al, 2012) aimed to measure perceptions of participants on biobanks and competitiveness on tourism. Two of quantitative articles focused on agricultural consumption and employment policies applied cost-effectiveness and benefit-cost analyses in their methods (Dallongeville et al, 2010; Haveman and Weimer, 2015).

Mixed methods approach rarely used in the articles coded in this category. Simulation and survey method was applied in Cavana and Clifford's (2006) study, demonstrating the utility of system dynamics for public policy analysis in New Zealand. Two of articles (Sumino, 2016; His-Yu et al, 2012) used survey data to conduct an empirical and a case study. The data used in Ridde et al.' (2012) study were taken from documentary analysis, interviews and questionnaires and lastly, Farral and Jennings (2012) used both empirical and qualitative data from a range of sources dating back to 1961 and using time series modelling, in their research.

## Educational Policies

In the articles which analysed educational policies, qualitative approach was mostly used. Particularly, document analysis method frequently applied to analyse the education policies through newspapers and magazines, professional societies, related educational documents and law (Dill and Soo, 2005; Knijnik and Wanderer, 2015; Paes and Silva, 2015). Discourse analysis (Kretchmar,2011; Thomas, 2004) and in depth interview (Aronowitz and Fawcett, 2015) were other methods applied in the articles for critical policy analysis of local and cross national educational problems.

Rodriguez et al. (2018) conducted a quantitative comparative analyse of knowledge production promotion mechanisms on five universities in the Northeastern Region of Mexico. Wokadala and Barungi (2015) benefited from statistics in the analysis of government spending on public-private partnership schooling under universal secondary education policy in Uganda.

In their study, Frederickson and Stazyk's (2016) presented secondary empirical data from U.S. News Rankings and this study was coded as the only one in mixed methods approach category.

## I.T. Policies

Articles analysing I.T. policies almost equally varied in methodological approaches. In qualitative studies, Flores and Villarreal (2017) carried out a comparative analysis developmental strategy of aerospace industry in Brazil, Canada, and Mexico. Similarly, Pena (2015) comparatively analysed public policies in open access models in Brazil and Argentina. McGuian's (2015) study based on a literature review, analysed U.S. National Institute of Health's (NIH) public access policy. Makridis (2013) study also reviewed the extend literature to analyse cognitive enhancement for public policy application. Kelly (2015) chose qualitative content analysis method in his research that aimed to examine collection development policies in Public Libraries.

In quantitative studies, Lee and Jung (2016) conducted a meta-analysis that combines results of empirical studies by using the statistical methodology, on radio frequency identification (RFID) adoption. Till et al. (2014) focused on algorithms accomplished by purely statistical means to promote analysis of public policy texts. Milne and Culnan (2002) analysed data from 1998-2001 U.S. Web Surveys to examine the usage of content of online privacy notices to inform public policy.

In the articles categorized in mixed methods, several data collection methods applied in the same study (Jaeger et al, 2004). Also, big data phe-

nomenon defined in I.T. policies as a multilevel analysis source (Jarmin and O'Hara, 2016). Network analysis (Jung and Park, 2015) was detected another preferred technique in I.T. policy analysis.

## Environmental Policies

In the articles conducted environmental policy analysis in qualitative approach, Lopez and Bohm (2002) carried out a descriptive historical analysis of public policy for energy technology innovation. Vine et al. (2003) collected data from Experts meetings and the Practitioners Workshops and use it to analyse the energy efficiency and load management in changing electricity businesses. Lopera-Pareja (2017) applied to content analysis method on Spanish context to examine the relationship between public policies, social perception and media content on fracking. Two of articles included case studies to analyse environmental policies (Raitio, 2012; Cairns et al, 2016). In their case study, Cairns et al. (2016) engaged scenario method that is believed to be helpful for solving out single organisations or industry sectors and diverse organisational groups' complex and ambitious problems.

Survey and statistics methods were used in quantitative analysis of selected articles in environmental policies category. Lundberg et al. (2015) used statistics in his empirical analysis on green public procurement. Two of the articles (Wiser, 2000; Greenberg, 2009) designed survey to analyse the preferences of marketers on green markets and of citizens on energy sources.

Secondary data, network analysis and multimethod were used in the articles coded in mixed methods approach. Anderson et al. (2017) conducted a cross-national analysis of energy policies in Europe using secondary data sources. Cruz et al. (2018) analysed current housing habitat produced by the national public policies in Palmira by multimethod analysis gathering data from literature review and policy documents. In another multimethod based research, Witheridge and Morris (2016) utilised data from desk-based research of policy documents, associated reports and academic literature; and informal interviews with community gardens staff and organisers. The study analysed the effect of public policy on community garden organisations in Edinburgh. Lastly, Vantoch-Wood and Connor (2013) who studied on wave energy, conducted a network analysis included several empirical metrics to create a network 'map' of interactions among stakeholder of the sector.

## Discussion and Conclusion

According to the findings of the research, this was put forth that the studies related to public administration, health and environmental policy analysis used qualitative, quantitative and mixed analysis approaches almost equal, economic policy analysis studies mostly used quantitative analysis approach, education and information-communication policy analysis studies mostly used mixed analysis approach and their data collection techniques. As can be seen from this result, it cannot be said that public policy studies which are carried out in a specific field are carried out with a specific approach or data collection technique. The choice of the researcher, the data collection area or inventory, the design of the research, the problem and question of the research, affect the choice of research method and data collection technique to be used. One remarkable discussion that needs to be addressed here is the use of the right methods and techniques for the right purpose.

Public policy analysis can sometimes play an important role in guiding government policies. They can also inspire local governments and even individual public institutions on a more micro scale. In this respect, public policy analysis studies need to be enriched both in number and quality. This paper presents a methodological exhibition of public policy analysis studies in various fields, published in prestigious journals since the early 2000s. Thus, it is revealed quantitatively and qualitatively which methods and techniques of public policy analysis are used in which fields. It has been observed that the data collection techniques used in the studies are increasingly diversified. In this context, it is investigated that comparative analysis, meta-analysis and network analysis techniques are increasingly adapted to the field of study. As the study focuses on public policies produced in six main areas, the findings and conclusions are kept at a more superficial level. The studies that will be made in similar and more specific policy areas but with more in-depth analysis will contribute to the development of the discussion.

# REFERENCES

Anderson, B., Bohmelt, T., & Ward, H. (2017). Public opinion and environmental policy output: a cross-national analysis of energy policies in Europe. Environmental Research Letters, 12, 1-10.

Anglin, L. et al. (2000). Alcohol policy content analysis: a comparison of public health and alcohol industry trade newsletters. Drug and Alcohol Review, 19, 203-212.

Anker, T. B. (2016). Analysis of the Paternalistic Justification of an Agenda Setting Public Health Policy: The Case of Tobacco Plain Packaging. Public Health Ethics, 9, 2, 208-228.

Aronowitz, T., & Fawcett, J. (2015). Analysis of Public Policies for Sexuality Education in Germany and The Netherlands. American Journal of Sexuality Education, 10, 140-157.

Asthana, S., & Halliday, J. (2006). Developing an Evidence Base for Policies and Interventions to Address Health Inequalities: The Analysis of Public Health Regimes. The Milbank Quarterly, 84, 3, 577–603.

Atkinson, J., Page, A., Wells, R., Milat, A., & Wilson, A. (2015). A modelling tool for policy analysis to support the design of efficient and effective policy responses for complex public health problems. Implementation Science, 10, 26, 1-9.

Baird, B. (2013). To Improve Public Policy. Science, 340, 6131, 432-433.

Banales-Lopez, S., & Norberg-Bohm, V. (2002). Public policy for energy technology innovation - A historical analysis of fluidized bed combustion development in the USA. Energy Policy, 30, 1173-1180.

Bansal, C. L., & Aggarwal, S. (2017). Public policy paradox in enforcement of Foreign Arbitral Awards in BRICS countries - A comparative analysis of legislative and judicial approach. International Journal of Law and Management, 59, 6, 1279-1291.

Bastian, A. (2001). The future of public health nutrition: a critical policy analysis of Eat Well Australia. Australian and New Zealand Journal of Public Health, 35, 2, 111-116.

Beck, C. R., McKenzie, B. C., Hashim, A. B., Harris, R. C., & Zanuzdana, A. et al. (2011). Influenza Vaccination for Immunocompromised Patients: Systematic Review and Meta-Analysis from a Public Health Policy Perspective. Plos One, 6, 12, 1-15.

Bédard, P. O. (2015). The Mobilization of Scientific Evidence by Public Policy Analysts: Path Analysis and Predicted Probabilities. Sage Open, 1, 15.

Blanchet, K. et al. (2014). Physical rehabilitation in post-conflict settings: analysis of public policy and stakeholder networks. Disability and Rehabilitation, 36, 18, 1494–1501.

Breen, G., Matusitz, J., & Wan, T. H. T. (2009). The Use of Public Policy Analysis to Enhance the Nursing Home Reform Act of 1987. Work in Health Care, 48, 5: 505-518.

Cabrera, K. I. (2015). Comparative analysis of public policies in open access models in Latin America. Brazil and Argentina cases. Universities and Knowledge Society Journal, 12, 1, 15-24.

Cairns, G., Wright, G., & Fairbrother, P. (2016). Promoting articulated action from diverse stakeholders in response to public policy scenarios: A case analysis of the use of 'scenario improvisation' method. Technological Forecasting & Social Change, 103, 97-108.

Cannone, G., & Ughetto, E. (2014). Funding Innovation at Regional Level: An Analysis of a Public Policy Intervention in the Piedmont Region. Regional Studies, 48, 2, 270-283.

Carlson, D. (2011). Trends and Innovations in Public Policy Analysis. The Policy Studies Journal, 39, 13-26.

Castelar, B., Siqueira, M. F., Sánchez-Tapia, A., & Reis, R. P. (2015). Risk Analysis A sing Species Distribution Modeling to Support Public Policies for the Alien Alga Kappaphycus Alvarezii Aquaculture in Brazil. Aquaculture, 446, 217-226.

Cavana, R. Y., & Clifford, L. V. (2006). Demonstrating the utility of system dynamics for public policy analysis in New Zealand: the case of excise tax policy on tobacco. System Dynamics Review, 22, 4, 321-348.

Chaney, P., & Wincott, D. (2014). Envisioning the Third Sector's Welfare Role: Critical Discourse Analysis of Post-Devolution Public Policy in the UK1998–2012. Social Policy & Administration, 48, 7, 757-781.

Chen, W., Zhang, Z. G., & Hua, Z. (2015). Analysis of Two-Tier Public Service Systems Under a Government Subsidy Policy. Computers & Industrial Engineering, 90, 46–157.

Chow, J. Y. J. (2014). Policy analysis of third party electronic coupons for public transit fares. Transportation Research Part A 66, 238–250.

Chung, W., & Zeng, D. (2015). Social-media-based public policy informatics: Sentiment and network analyses of U.S. Immigration and border security. Journal of the Association for Information Science and Technology, 68, 12, 2847-2847.

Chung, Y., Song, T., & Park, J. (2012). Freeway booking policy: Public discourse and acceptability analysis. Transport Policy, 24, 223–231.

Collin, J., Hill, S. E., Eltanani, K. M., Plotnikova, E., Ralston, R., & Smith, K. E. (2017). Can public health reconcile profits and pandemics? An analysis of attitudes to commercial sector engagement in health policy and research. Plos One, 12, 9, 1-13.

Cruz, L. M. M., Valencia, M. P. D., et al. (2018). Social Environment in the City of Palmira (Colombia): Analysis of the Current Housing Habitat Produced by the National Public Policies. Journal of Urban Planning and Development, 144, 1, 1-9.

Dallongeville, J., Dauchet, L. et al. (2010). Increasing fruit and vegetable consumption: a cost-effectiveness analysis of public policies. European Journal of Public Health, 21, 1, 69-73.

De Souza, J., Fiorati, R. C. et al. (2018). Brazilian Public Policies on Drugs: An Analysis Considering the Aspects of Assistance, Prevention, and Supply Control. Journal of Addictions Nursing, 29, 1, 50-56.

Desmarais, B. A., & Hird, A. J. (2014). Public policy's bibliography: The use of research in US regulatory impact analyses. Regulation & Governance, 8, 497–510.

Dill, D. D., & Soo, M. (2005). Academic quality, league tables, and public policy: A cross-national analysis of university ranking systems. Higher Education, 49, 495-533.

Dinour, L. M. (2015). Conflict and Compromise in Public Health Policy: Analysis of Changes Made to Five Competitive Food Legislative Proposals Prior to Adoption. Health Education & Behavior, 42, 1S, 76-86.

Dinour, L. M., Kwan, A., & Freudenberg, N. (2017). Use of Comparative Case Study Methodology for US Public Health Policy Analysis: A Review. Comparative Case Studies in Public Health Policy, 23, 1, 81-89.

Domeij, D., & Ellingsen, T. (2018). Rational bubbles and public debt policy: A quantitative analysis. Journal of Monetary Economics, 96, 109-123.

Dror, Y. (1967). Policy Analysts: A New Professional Role in Government Service. Public Administration Review, 27, 3, 197-203.

Farrall, S., & Jennings, W. (2012). Policy Feedback and the Criminal Justice Agenda: An Analysis of the Economy, Crime Rates, Politics and Public Opinion in Post-War Britain. Contemporary British History, 26, 4, 467-488.

Fast, I., Sørensen, K., Brand, H., & Suggs, L. S. (2014). Social Media for Public Health: An Exploratory Policy Analysis. European Journal of Public Health, 25, 1, 162-166.

Flores, S., & Villarreal, A. (2017). Comparative Analysis of the Developmental Strategy of Aerospace Industry in Brazil, Canada, and Mexico: Public-Policy Implications. Latin American Policy, 8, 1, 41-62.

Fonseca, J. R. S. (2015). A Public Administration Headache: An Evaluation Analysis of Prison Policy and Recidivism Toward Social Reintegration. International Journal of Public Administration, 38, 701–711.

Franco, E. L., & Drummond, M. F. (2008). Cost-effectiveness analysis: An essential tool to inform public health policy in cervical cancer prevention. Vaccine, 26, 1-2.

Frederickson, H. G., & Stazyk, E. C. (2016). Ranking Public Policy and Administration Graduate Programs, 1995-2016: An Analysis and Discussion. American Review of Public Administration, 46, 5, 507-525.

Geva-May, I., & Kfir, A. (2000). Developments in policy analysis and evaluation in israeli public administration. Public Administration, 78, 2, 409–422.

Gilbert, J. A., & Meyers, L. A. et al. (2014). Probabilistic uncertainty analysis of epidemiological modeling to guide public health intervention policy. Epidemics, 6, 37-45.

Greenberg, M. (2009). Energy sources, public policy, and public preferences: Analysis of US national and site-specific data. Energy Policy, 37, 3242–3249.

Guo, L., Bao, Y., Li, S., Ma, J., & Sun, W. (2018). Quality analysis and policy recommendations on the utilization of community basic public health services in urban and suburban Shanghai from 2009 to 2014. Environmental Science and Pollution Research, 25, 28206-28215.

Hadani, M., Bonardi, J., & Dahan, N. M. (2016). Corporate political activity, public policy uncertainty, and firm outcomes: A meta-analysis. Strategic Organization, 15, 3, 338 –366.

Hampton, G. (2009). Narrative policy analysis and the integration of public involvement in decision making. Policy Sci, 42, 227–242.

Haveman, R. H., & Weimer, D. L. (2015). Public Policy Induced Changes in Employment: Valuation Issues for Benefit-Cost Analysis. Journal of Benefit-Cost Analysis, 6, 112-153.

Hazlett, S., McAdam, R., & Walker, T. (2013) The role of operations management in public sector policy and practice alignment: a local government analysis, Production Planning & Control, 24, 10-11, 988-1001.

Heap, V., & Dickinson, J. (2018). Public Spaces Protection Orders: a critical policy analysis. Safer Communities, 17, 3, 182-192.

Hermans, L. M., & Thissen, W. A. H. (2009). Actor analysis methods and their use for public policy analysts. European Journal of Operational Research, 196, 808–818.

Holst, C., & Moodie, J. R. (2015). Cynical or Deliberative? An Analysis of the European Commission's Public Communication on Its Use of Expertise in Policy-Making. Politics and Governance, 3, 1, 37-48.

Hooghe, M., & Thomas, V. (2015). How Does the Majority Public React to Multiculturalist Policies A Comparative Analysis of European Countries. American Behavioral Scientist, 59, 6, 747-768.

Hudson, J., & Kuhner, S. (2013). Qualitative comparative analysis and applied public policy analysis: New applications of innovative methods. Policy and Society, 32, 279–287.

Hui, W. (2012). Accounting Standards Making on the Basis of the Public Policy Analysis Method. Procedia Engineering, 37, 192-196.

Hung, L., Yu, C., Lin, M., & Su, Y. (2012). Assessing Public Policy Research in Taiwan: An Analysis of Journal Publications, 1996–2007. Journal of Comparative Policy Analysis, 14, 5, 431–448.

Jacobsen, F. F. (2015). Understanding public elderly care policy in Norway: A narrative analysis of governmental White papers. Journal of Aging Studies, 34, 199-205.

Jaeger, P. T., Bertot, J. C., & McClure, C. R. (2004). The Effects of the Children's Internet Protection Act (CIPA) in Public Libraries and Its Implications for Research: A Statistical, Policy, and Legal Analysis. Journal of the American Society for Information Science and Technology, 55, 13, 1131-1139.

Januário, S. S., Peixoto, F. S. N., Lima, N. N. R., Nascimento, V.B., Sousa, D. F., Luz, D. C. R. P., Silva, C. G. L., & Neto, M. L. R. (2017). Mental health and public policies implemented in the Northeast of Brazil: A systematic review with meta-analysis. International Journal of Social Psychiatry, 63, 1, 21-32.

Jardat, R., & Labulle, F. (2018). Local inefficiencies in French public–private diversity and inclusion policies: Envisioning a locality-based intersectional analysis. Society and Business Review, 13, 1, 39-6.

Jarmin, R. S., & O' Hara, A. B. (2016). Big Data and the Transformation of Public Policy Analysis. Journal of Policy Analysis and Management, 35, 3, 1-7.

Jessani, N. S., Boulay, M. G., & Bennett, S. C. (2016). Do academic knowledge brokers exist? Using social network analysis to explore academic research-to-policy networks from six schools of public health in Kenya. Health Policy and Planning, 31, 5, 600-611.

Jung, K., & Park, H. W. (2015). A semantic (TRIZ) network analysis of South Korea's "Open Public Data" policy. Government Information Quarterly, 32, 353-358.

Kaltoft, M. K., Turner, R., Cunich, M., Salkeld, G., Nielsen, J. B., & Dowie, J. (2015). Addressing preference heterogeneity in public health policy by combining Cluster Analysis and Multi-Criteria Decision Analysis: Proof of Method. Health Economics Review, 5, 10, 1-11.

Kato, H., Shiroyama, H., & Nakagawa, Y. (2014). Public policy structuring incorporating reciprocal expectation analysis. European Journal of Operational Research, 233, 171-183.

Kelly, M. (2015). Collection Development Policies in Public Libraries in Australia: A Qualitative Content Analysis. Public Library Quarterly, 34, 1, 44-62.

Kelton, C. M. L., & Rebelein, R. P. (2007). A General-Equilibrium Analysis of Public Policy for Pharmaceutical Prices. Journal of Public Economic Theory, 9, 2, 285-318.

Kibuule, D., Mubita, M., Naikaku, E., Kaleemera, F., Godman, B. B., & Sagwa, E. (2017). An analysis of policies for cotrimoxazole, amoxicillin and azithromycin use in Namibia's public sector: Findings and therapeutic implications. The International Journal of Clinical Practice, 71, 2, 1-10.

Knijnik, G., & Wanderer, F. (2015). Mathematics Education in Brazilian Rural Areas: An analysis of the Escola Ativa public policy and the Landless Movement Pedagogy. Open Review of Educational Research, 2, 1, 143-154.

Kofke, W. A. (2014). Analysis of the reports of high-level commissions that have comprehensively reviewed US public policy on brain death. Journal of Critical Care, 29, 1117-1118.

Kothari, A. et al. (2013). Chronic disease prevention policy in British Columbia and Ontario in light of public health renewal: a comparative policy analysis. BMC Public Health, 13, 934, 1-14.

Kretchmar, K. (2011). Democracy (In)Action: A Critical Policy Analysis of New York City Public School Closings by Teachers, Students, Administrators, and Community Members. Education and Urban Society, 46, 1, 3-29.

Lau, R. R., & Heldman, C. (2009). Self-Interest, Symbolic Attitudes, and Support for Public Policy: A Multilevel Analysis. Political Psychology, 30, 4, 513-537.

Lee, S., & Jung, K. (2016). A meta-analysis of determinants of RFID adoption around the world: Organization, technology, and public policy. Asia Pacific Journal of Innovation and Entrepreneurship, 10, 1, 67-90.

Lin, Y., Kamo, Y., & Slack, T. (2018). Is It the Government's Responsibility to Reduce Income Inequality? An Age-Period-Cohort Analysis of Public Opinion toward Redistributive Policy in the United States, 1978 to 2016. Sociological Spectrum, 38, 3, 162-173.

Lohman, H. (2003). Critical Analysis of a Public Policy: An Occupational Therapist's Experience With the Patient Bill of Rights. The American Journal of Occupational Therapy, 57, 4, 468-472.

Lopera-Pareja, E. H., García-Laso, A., & Martín-Sánchez, D. A. (2017). Public policies, social perception and media content on fracking: An analysis in the Spanish context. Annals of Geophysics. 60, 7, 1-7.

Lubold, A. M. (2017). The effect of family policies and public health initiatives on breastfeeding initiation among 18 high-income countries: a qualitative comparative analysis research design. International Breastfeeding Journal, 12,34, 1-11.

Lundberg, S., Marklund, P. et al. (2015). Using public procurement to implement environmental policy: an empirical analysis. Environmental Economics and Policy Studies, 17, 487-520.

Lysaght, T., & Kerridge, I. (2012). Rhetoric, power and legitimacy: A critical analysis of the public policy disputes surrounding stem cell research in Australia. Public Understanding of Science, 21, 2, 195-210.

Macias-Chapula, C. A. (2013). Comparative analysis of health public policy research results among Mexico, Chile and Argentina. Scientometrics, 95, 615-628.

Madero, V., & Morris, N. (2016). Public participation mechanisms and sustainable policy-making: a case study analysis of Mexico City's Plan Verde. Journal of Environmental Planning and Management, 59, 10, 1728-1750.

Maiga, F. I., Haddad, S., Fournier, P., & Gauvin, L. (2003). Public and private sector responses to essential drugs policies: a multilevel analysis of drug prescription and selling practices in Mali. Social Science & Medicine, 57, 937-948.

Makridis, C. (2013). Converging Technologies: A Critical Analysis of Cognitive Enhancement for Public Policy Application. Science and Engineering Ethics, 19, 1017-1038.

Marchetti, D., & Wanke, P. (2017). Brazil's rail freight transport: Efficiency analysis using two-stage DEA and cluster-driven public policies. Socio-Economic Planning Sciences, 59, 26-42.

Martínez, R. M., Galván, M. O., & Lafuente, A. M. G. (2014). Public Policies and Tourism Marketing. An analysis of the competitiveness on tourism in Morelia, Mexico and Alcala de Henares, Spain. Procedia - Social and Behavioral Sciences, 148, 146-152.

Masotti, P., & Green, M. E. et al. (2013). pH1N1 - a comparative analysis of public health responses in Ontario to the influenza outbreak, public health and primary care: lessons learned and policy suggestions. BMC Public Health, 13, 687, 1-10.

Matei, A., & Dogaru, T. (2013). Coordination of Public Policies in Romania. An Empirical Analysis. Procedia - Social and Behavioral Sciences, 81, 65 – 71.

McGuigan, G. S. (2015). The NIH Public Access Policy and Federally Funded Research: An Analysis of Problem Recognition and Agenda Setting. The Journal of Academic Librarianship, 41, 54-60.

McLean, W. (2015) Understanding Divergence between Public Discourse and Turkish Foreign Policy Practice: A Neoclassical Realist Analysis. Turkish Studies, 16, 4, 449-464.

Michael, M. (2014). Prison health as public health in Afghanistan? A policy analysis of the on-going reform process. Public Health, 128, 478-481.

Milne, G. R., & Culnan, M. J. (2002) Using the Content of Online Privacy Notices to Inform Public Policy: A Longitudinal Analysis of the 1998-2001 U.S. Web Surveys, The Information Society, 18, 5, 345-359.

Milton, K., & Grix, J. (2015). Public health policy and walking in England—analysis of the 2008 'policy window'. BMC Public Health, 1-9.

Milton, K., & Grix, J. (2015). Public health policy and walking in England—analysis of the 2008 'policy window'. BMC Public Health, 1-9.

Muller, P. (2015). Looking back at public policy in France: A retrospective analysis of the French touch. French Politics, 13, 3, 287–301.

Mulligan, K., Elliot, S. J., & Schuster-Wallac, C. J. (2012). Global public health policy transfer and dengue fever in Putrajaya, Malaysia: a critical discourse analysis. Critical Public Health, 22, 4, 407–418.

Nasution, M. E. & Wahyudi, I. (2017). Government fiscal policy impact analysis in infrastructure sector and education sector to improve public welfare. Economic Journal of Emerging Markets, 9, 1, 51-65.

Neave, P. E., Taylor, S., & Behrens, R. H. (2013). Does public subsidy of the cost of malaria chemoprophylaxis reduce imported malaria? A comparative policy analysis. Malaria Journal, 12, 238, 1-5.

Nilsson, M., Jordan, A., Turnpenny, J., Hertin, J., Nykvist, B., & Russel, D. (2008). The use and non-use of policy appraisal tools in public policy making: an analysis of three European countries and the European Union. Policy Sci, 41, 335–355.

Nistal-Nu~no, B. (2018). Joinpoint regression analysis to evaluate traffic public health policies by national temporal trends from 2000 to 2015. International Journal of Injury Control and Safety Promotion, 25, 2, 128-133.

O'Gorman, A., Quigley, E., Zobel, F., & Moore, K. (2014). Peer, professional, and public: An analysis of the drugs policy advocacy community in Europe. International Journal of Drug Policy, 25, 1001-1008.

Olesen, C. A., & Karlsson, L. E. (2018). Roma Representation in Danish Roma Policy and Public Discourse—A Critical Analysis. Societies, 8, 63, 1-11.

Paes, M. S. P., & Silva, J. M. A. P. (2015). Professional education in contemporary Brazilian society: public policies and pronatec cup program analysis. Procedia - Social and Behavioral Sciences, 174, 239-243.

Peckover, S. (2014). Domestic Abuse, Safeguarding Children and Public Health: Towards an Analysis of Discursive Forms and Surveillant Techniques in Contemporary UK Policy and Practice. British Journal of Social Work, 44, 1770–1787.

Pensiero, N. (2017). In-house or outsourced public services? A social and economic analysis of the impact of spending policy on the private wage share in OECD countries. International Journal of Comparative Sociology, 58, 4, 333-351.

Peters, D. T. J. M., Raab, J., Grêaux, K. M., Stronks, K., & Harting, J. (2017). Structural integration and performance of inter-sectoral public health-relat-

ed policy networks: An analysis across policy phases. Health Policy, 121, 1296-1302.

Pino, E. D., & Ryzin, G. V. (2012). Intergovernmental Responsibility for Social Policy: An Analysis for Public Preferences in Spain. The Journal of Federalism, 43, 4, 676-700.

Pinto, A. D. et al. (2012). Equity in public health standards: a qualitative document analysis of policies from two Canadian provinces. International Journal for Equity in Health, 11, 28, 1-10.

Portillo, L. A. F., & Carillo, F. S. (2015). An Analysis of the Quality of the Central American Strategy for Rural Territorial Development (ECADERT) as a Regional Public Policy. Cuad. Desarro. Rural, Bogotá, 12, 76, 83-107.

Pullman, D., Etchegary, H. et al. (2012). Personal privacy, public benefits, and biobanks: a conjoint analysis of policy priorities and public perceptions. Genetics in Medicine, 14, 2, 229-235.

Rafter, K., Flynn, R., McMenamin, I., & O'Malley, E. (2014). Does commercial orientation matter for policy-game framing? A content analysis of television and radio news programmes on public and private stations. European Journal of Communication, 29, 4, 433-448.

Raitio, K. (2012). New institutional approach to collaborative forest planning on public land: Methods for analysis and lessons for policy. Land Use Policy, 29, 309-316.

Raphael, D. (2014). Beyond policy analysis: the raw politics behind opposition to healthy public policy. Health Promotion International, 30, 2, 380-396.

Regan, S. et al. (2014). Public health human resources: a comparative analysis of policy documents in two Canadian provinces. Regan et al. Human Resources for Health, 12, 13: 1-11.

Reitmanova, S., Gustafson, D. L., & Ahmed, R. (2015). "Immigrants Can Be Deadly": Critical Discourse Analysis of Racialization of Immigrant Health in the Canadian Press and Public Health Policies. Canadian Journal of Communication, 40, 3, 471-487.

Reitmanova, S., Gustafson, D. L., & Ahmet, R. (2015). "Immigrants Can Be Deadly": Critical Discourse Analysis of Racialization of Immigrant Health in the Canadian Press and Public Health Policies. Canadian Journal of Communication, 40, 471-487.

Ridde, V., Queuille, L. et al. (2012). Transversal analysis of public policies on user fees exemptions in six West African countries. BMC Health Services Research, 12, 409, 1-13.

Rijswoud, E.V. (2010). Virology Experts in the Boundary Zone Between Science, Policy and the Public: A Biographical Analysis. Minerva, 48, 145–167.

Rosella, L. C. et al. (2013). Pandemic H1N1 in Canada and the use of evidence in developing public health policies e A policy analysis. Social Science & Medicine, 83, 1-9.

Rosella, L. C., Wilson, K., Crowcroft, N. S., Chu, A., Upshur, R., Willison, D., Deeks, S. L., Schwartz, B., Tustin, J., Sider, D., & Goel, V. (2013). Pandemic H1N1 in Canada and the use of evidence in developing public health policies e A policy analysis. Social Science & Medicine, 83, 1-9.

Russell, L. B., & Sinha, A. (2016). Strengthening Cost-Effectiveness Analysis for Public Health Policy. American Journal of Preventive Medicine, 50, 5, 6-12.

Rutten, A. et al. (2013). Physical inactivity as a policy problem: applying a concept from policy analysis to a public health issue. Health Research Policy and Systems, 11, 9, 1-9.

Saint-Martin, D., & Allison, C. R. (2011). Rationalism and public policy: Mode of analysis or symbolic politics. Policy and Society, 30, 19–27.

Saldana, J. (2009). The Coding Manual for Qualitative Researchers. Sage Publications.

Sánchez Rodríguez, L. I., Lladó Lárraga, D. M., & Domínguez Saldívar, A. (2018). Policies and Mechanisms to Promote the Production of Knowledge and its Effects on University Scholars: Comparative Analysis among Public Universities in the Northeastern Region of Mexico. Revista Romaneasca pentru Educatie Multidimensionala, 10, 4, 315-331.

Sangare, S. & Maisonnave, H. (2018). Mining and petroleum boom and public spending policies in Niger: a dynamic computable general equilibrium analysis. Environment and Development Economics, 23, 580-590.

Sert, E., Osmanli, N., Eruc, R., & Uyan, M. (2017). Determination of transportation networks base on the optimal public transportation policy using spatial and network analysis methods: a case of the Konya, turkey. International Journal of Engineering and Geosciences (IJEG), 2, 1, 27-34.

Sumino, T. (2015). Level or Concentration? A Cross-national Analysis of Public Attitudes Towards Taxation Policies. Springer, 1115-1134.

Syme, L. M. et al. (2016). Content analysis of public opinion on sexual expression and dementia: Implications for nursing home policy development. Health Expectations.

Tanaka, J. (2003). Welfare Analysis of a Fiscal Reconstruction Policy in an Overlapping Generations Economy with Public Investment. Journal of Economics, 79, 1, 19-39.

Thomas, S. (2010). Reconfiguring the Public Sphere: Implications for Analyses of Educational Policy. British Journal of Educational Studies, 52, 3, 228-248.

Thrasher, J. F., & Abad-Vivero, E. N. et al. (2012). Tobacco smoke exposure in public places and workplaces after smoke-free policy implementation: a

longitudinal analysis of smoker cohorts in Mexico and Uruguay. Health Policy and Planning, 28, 789-798.

Till, B. C., Longo, J., et al. (2014). Self-organizing maps for latent semantic analysis of free-form text in support of public policy analysis. WIREs Data Mining and Knowledge Discovery, 4, 71-86.

Vantoch-Wood, A. & Connor, P. M. (2013). Using network analysis to understand public policy for wave energy. Energy Policy, 62, 676-685.

Velan, B., Boyko, V., Shenhar, G., Lerner-Geva, L., & Kaplan, G. (2013). Analysis of public responses to preparedness policies: the cases of H1N1 influenza vaccination and gas mask distribution. Israel Journal of Health Policy Research, 2, 11, 1-13.

Vine, E., Hamrin, J. et al. (2003). Public policy analysis of energy efficiency and load management in changing electricity businesses. Energy Policy, 31, 405-430.

Voss, P. R., Hammer, R. B., & Meier, A. M. (2001). Migration analysis: A case study for local public policy. Population Research and Policy Review, 20, 587–603.

Wagner, S. A., Vogt, S., & Kabst, R. (2016). The future of public participation: Empirical analysis from the viewpoint of policy-makers. Technological Forecasting & Social Change, 106, 65–73.

Wali, N., Chen, W., Rawal, L. B., Amanullah, A. S. M., & Renzaho, A. M. N. (2018). Integrating human rights approaches into public health practices and policies to address health needs amongst Rohingya refugees in Bangladesh: a systematic review and meta-ethnographic analysis. Archives of Public Health, 76, 59, 1-14.

Warren, J., Wistow, J., & Bambra, C. (2013). Applying Qualitative Comparative Analysis (QCA) to evaluate a public health policy initiative in the North East of England. Policy and Society, 32, 4, 289-301.

Wildavsky, A. (1979). The Art and Craft of Policy Analysis. UK: Palgrave Macmillan.

Winter, S. F., & Winter, S. F. (2018). Human Dignity as Leading Principle in Public Health Ethics: A Multi-Case Analysis of 21st Century German Health Policy Decisions. Int. J. Health Policy Manag. 7, 3, 210–224.

Wiser, R. H. (2000). The role of public policy in emerging green power markets: an analysis of marketer preferences. Renewable and Sustainable Energy Reviews, 4, 177-212.

Witheridge, J., & Morris, N. J. (2016). An analysis of the effect of public policy on community garden organisations in Edinburgh. Local Environment, 21, 2, 202-218.

Wokadala, J., & Barungi, M. (2015). Benefit Incidence Analysis of Government Spending on Public-Private Partnership Schooling under Universal Sec-

ondary Education Policy in Uganda. Africa Education Review, 12, 3, 381-397.

Yang, F., Chen, L., Cheng, Y., Yao, Z., & Zhang, X. (2015). Urban public transport choice behavior analysis and service improvement policy-making: a case study from the metropolitan city, Chengdu, China. Journal of Applied Statistics, 42, 4, 806–816.

Yu, C., Chen, C. et al. (2012). Developing a revised QFD technique to meet the needs of multiple-customer groups: a case of public policy analysis. Total Quality Management, 23, 12, 1413-1431.

Zardo, P., & Collie, A. (2014). Measuring use of research evidence in public health policy: a policy content analysis. BMC Public Health, 14, 496, 1-10.

Zardo, P., & Collie, A. (2014). Predicting research use in a public health policy environment: results of a logistic regression analysis. Implementation Science, 9, 142, 1-10.

# ORGANIZATIONAL CULTURE WITHIN THE SCOPE OF ETHICAL PRINCIPLES, BUSINESS ETHICS, EXAMINING THE IMPORTANCE OF HUMAN RESOURCES

CHAPTER

26

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## INTRODUCTION

As a requirement of business ethics, HR managers should provide equal opportunities to all employees in the provision of training and development opportunities (Budd & Scoville, 2005; Weaver, 2004). The rapid change experienced leads to aging of the skills and knowledge of all employees regardless of the level difference. In this sense, the fact that all employees need to update their skills and knowledge should not be overlooked. After determining the training needs of the employees in the training and development function, the scope of the programs is determined depending on the quality of the training and development requested. At this stage, there are different ethical issues. First of all, the opinions of the employees who will be provided with training and development support should be taken and assured that they participate in these programs of their own accord. Otherwise, it will be unethical for employees to face coercion or coercion in this direction (Wooten, 2001). The most important ethical principles to be considered in determining the content of the training and development program are justice and equality of opportunity. Accordingly, discrimination should not be made in determining the scope of the programs. For example, while individuals working in the same departments in the organization are offered a more comprehensive training and development program, some may provide injustice for a narrower and short-term training and development opportunity. Training and development programs are created in line with different needs and demands. While considering these differences, training and development programs, regardless of their scope and level, teach managers the values of the organization's code of ethics to adopt the values of the employees and show them how to solve ethical problems (Valentine, 2010). Therefore, HR managers should establish the scope of training and development programs at a level that aims to take advantage of this opportunity.

The performance evaluation process shows the extent to which employees achieve the projected performance goals. in addition to measuring their work activities, the ethical sensitivity and behavior of the employees can also be demonstrated through the performance evaluation function. To do this, organizations that institutionalize business ethics should also add criteria to measure the ethical performance of employees in their performance evaluation systems. For example, respect for other employees in this direction can be used as a criterion for valuing employees' ethical behavior (Vuuren & Eiselen, 2006). In the performance evaluation process, the decision of who evaluates the performance of employees is closely related to business ethics. It is accepted that the number of evaluators increased in the literature and the level of reflecting the actual situation of the process increased. According to Sillup and Klimberg (2010), the fact that evalu-

ators are from different sources prevents prejudices that are likely to be reflected in the system and the process can be carried out more objectively.

One of the important factors affecting the success of performance evaluation is that the evaluated employees should be informed about the process. To inform employees correctly and honestly about why, how, when and by whom the performance will be evaluated and in which decisions the evaluation results will be used; is among the ethical responsibilities of managers. The question of the intervals at which the assessment will be conducted should also be emphasized. Because decisions that are not made correctly will negatively affect the objectivity and fairness of the process. Therefore, the time interval should be determined as optimum to reflect the performance of the employees. For example, the period in which the specified performance standards can be realized should be demonstrated and a parallel should be established between the level of the targets set and the evaluation intervals. In this context, organizational culture, business ethics and the importance of human resources are examined within the scope of ethical principles.

## Concept of Organizational Culture

Every society, as time has developed a cultural orientation defining the attitudes of most of the people living in that society, organizations are trying to create their own culture. As the functions of organizations in a society change and multiply, various levels of culture; i.e. a class or a group culture emerges. This has become the culture of that organization (Adiguzel & Kucukoglu, 2019). Culture plays a big role in organizational activities. Successful organizations have solid cultures and benefit from them; as a fact, it has emerged in recent years (Karlöf, 1996). The model of organizational culture, as a social phenomenon, is rooted in sociology and anthropology. Organizational culture has the same character as social cultures. According to social theory, culture is developed within human interactions and is a result of social experience (Kaya, 2003). The interest towards the cultural characteristics of the organization emerged in the late 1970s and was called as a reassessment of the employee's role in organizational activities, as well as the service of the employee in the organization's management system. An important step was taken by Edgar Schain in the 80s on organizational culture which was actively discussed in the 60-70s (Schein, 2010). The importance of organizational culture in the business literature was experienced in the 1980s. In fact, Business Week published the cover of the October 1980 issue as Organizational Culture, and two years later, in 1982, Fortune Magazine addressed the issue. However, it is based on the beginning of 1970s when organizational culture is handled by organizational researchers. Pettigrew's Organizational Decision Making

Policy published in 1973 and his work on Working Organizational Cultures in 1979 and Turner's Exploration of Industrial Subcultures published in 1973 can be considered among the first organizational culture researches conducted by the researchers of the organization. However, Pettigrew's work in 1979 is of particular importance; because the concept of organizational culture was used for the first time in this study (Pettigrew, 1979). In 1983, Smircich focused on the reasons why the concept of culture is associated with organizational work and explored the growing importance of culture for organizational analysis. Smircich determined that the concept of culture and the concept of the organization intersected at five points (Can et al., 2006; Smircich, 1983):

- *Comparative Management:* According to this view, culture enters the organization through members of the organization and is an independent variable. Culture maintains its existence with the attitudes and activities of the members of the organization.

- *Organizational Culture:* Culture is perceived as a social adhesive to keep the organization together and expresses the values, social ideals and beliefs shared by the members of the organization. According to this view, culture is an intrinsic organizational variable. The subjects of comparative management and organizational culture, no matter how different they are, are compatible views. Both views derive from similar assumptions about the social world, organization and human nature. According to comparative management, culture is a part of the environment and a determining force. According to the second view, culture is the result of human action.

- *Organizational Cognition:* What is meant by this is the importance of a thorough understanding of the rules that determine how the members who share the culture see and define their environment. In summary, it should be understood what are the rules that guide individuals.

- *Organizational Symbolism:* This approach is a very, very, very, very culture as a system of shared symbols and meanings. Accordingly, the organization is defined as a form of symbolic discourses. The organization needs to be interpreted, read and deciphered in order to be understood. The focus of this kind of organizational analysis is how individuals interpret and understand their experiences and how this interpretation and understanding is associated with action.

- *Subconscious Processes and Organization:* Here, culture is used in terms of expressing the psychological processes that remain in the subconscious of human beings. The purpose of studying culture is to uncover the hidden universal dimensions of the human brain.

## Definition of Organizational Culture

During the 1980s and 1990s, many definitions have been made about the concept of organizational culture, and various views have been put forward as to what this concept entails or not. Thus, as in various cultural approaches in anthropology, various approaches have been adopted in defining, analyzing and researching the organizational culture. Since the employees in this field belong to different fields such as psychology, sociology, management and in terms of different approaches developed in these fields, the concept can be considered in different ways, definitions in different ways can be considered naturally (Sisman, 2002). In the first studies aimed at defining the organizational culture, the basic elements of the organizational culture were emphasized and such as how cultural values and norms affect behavior and the process of socialization have been kept in the foreground. Today, the same phenomena are included in the concept of organizational culture which is tried to be defined, but the subject is approached from a wider point of view and especially the concept of symbolization is given great importance. In fact, it was thought to be the secrets of organizational culture and has received worldwide attention from experts and theorists over the past 20 years. Experts have studied theories about organizational culture; but they have agreed on very rare theories (Peterson et al., 2011). According to Reichers and Schneider (1990), the organisation's culture "is the result of formal and informal sharing of organizational rules, practices and procedures". Sashkin and Kiser (1993) argued that the organisation's culture was "a function of examples of behavior, value acceptances and beliefs that resulted within the organization" (Sashkin & Kiser, 1993). Amado et al. (1991) describes the organisation's culture as a cement that holds different parts of an organization together in an appropriate and consistent and meaningful way, and describes the organisation's culture as an intermediary for the dynamic interaction between organizational structure and organizational strategy (Köse et al., 2003). There are also definitions that explain the culture of the organization differently. In addition to certain differences between definitions, there are many common features (Şimşek & Fidan, 2005):

- The first common feature is; values shared by individuals within the organization. In other words, employees have common values about what is good, what is bad, what behaviors are desired or undesirable. For example, some businesses have values that the customer is always right. This can be seen immediately in the advertisements, advertisements, designs or attitudes of some stores. In some organizations, the operator of the organization is seen as very valuable. In both instances, values explain how people should behave in an organization.

- The second common feature; It is the acceptance of the values that make up the organizational culture. What is being said here is that these values are not written in any book, they are not reflected in the training programs given to the employees, but they are composed of ideas and beliefs developed by the employees themselves.

- The third common feature is the common symbolic meanings these values carry for employees. These meanings are learned through the interaction between people within the organization. For example, stories, tales, and the behavior of a particular person are passed down from generation to generation as legends.

## Features and Elements of Organizational Culture

The characteristics of the organizational culture, which are defined very differently, are also expressed in different ways. According to a grouping, the characteristics of organizational culture are as follows: distinctive; it is stable; can also be understood without being expressed; It is symbolic; the integrator; accepted; a reflection of senior management; It has been learned; determines the history of the institution; partially subconscious; is not homogeneous; dynamic, related to macro-culture; is a control mechanism (Ott, 1989). Some of the characteristics of the organization's culture are summarized briefly below (Özalp, 2004):

- *Organizational Culture Is Learned:* While working within the organization and trying to learn the formal structure of the new members of the organization at the same time they realize the existence of organizational culture and try to learn this new phenomenon. A new dimension is added to the culture that individuals acquire in their family environments. The new element who has relations with other individuals in the organization first tries to learn the existence of the organization's culture and then the culture of the organization. The experience of managers and business competitors who have worked in the organization before and still works today becomes the norms and values for employees and become factors that need to be learned.

- *Provides Members with Organizational Identity:* The individual involved in the organization becomes not only a self-employed employee, but also a cornerstone of the organization. The individual integrates himself with colleagues, business groups and management. In the organization, the individual as a whole is identified.

- *Organizational Culture Should Be Shared Among Members:* Organizational culture is not a phenomenon that arises naturally, but an exemplary structure that individuals bring.

- *Organizational Culture May Change:* Organizational culture can change over time. As people change, so can the culture of the organization. For example, Ray Kroc's organizational culture at McDonalds continued for a long time, but later changed.

- *Organizational Culture Is The Reward System:* The reward system is a performance valuation that people care about very much. With the real placement of the organization's culture, promotion, appointment, salary increase takes place according to the performance of the employees.

- *Organizational Culture is Meeting The Need:* It meets the needs of individuals working in the organization and plays a guiding role in problems related to their work.

- *Organizational culture is not a written rule:* The organizational culture is not formally defined and does not have a written rule feature. Organizational learning and thinking can be provided through organizational culture.

- *Organizational Culture Facilitates Together:* There are movements within the organization that fall outside the rules and provide service to the objectives of the organization and provide the spirit of unity in the organization.

These features are located at different points on a scale ranging from low to high in each organization. American researchers have explained the characteristics of Piters and Uoterman organizational culture that contribute to organizational success (Piters & Uoterman-ml, 2012):

- Decisions are made even when there is a lack of information

- Customer satisfaction is the focal point of the organization's culture

- Promotes organizational culture, independence and initiative

- Accepts the culture of the organization as the important input and value of the organization

- Managers regularly visit the units they manage and communicate directly with employees at work

- Focus on core activities, diversification is not encouraged

- Simplicity of organizational structure, sparse management team; a combination of flexibility and rigidity in the organization

Some of the elements that make up an organizational culture are (South, 2001): Social and Physical Environment, Material Objects, Architectural Properties and Business Identity, Language and Metaphors Used, Stories and Myths, Ceremonies and Rituals, Behavioral Styles and Organizational Rules, Symbols, Heroes, Values, Beliefs and Attitudes, Basic Assumptions, Organization Historical.

Schein (1985) explained the elements of organizational culture in three dimensions. These items include:

- *Basic Counts:* They are the main beliefs that the members of the organization share about their relations with the environment, real time, space, human, human actions and the nature of human relations.

- *Basic Values:* These are the criteria adopted by the members of the organization in evaluating and judging events, situations and behaviors.

- *Artifacts:* It is the visible aspect of culture, technology, art performed by members- myths, symbols, stories, legends - and seen - patterns of behavior heard.

## Function, Importance and Benefits of Organizational Culture

Today, organizational culture plays an important role in gaining a competitive advantage in organizations. Because organizational culture has a significant impact on the formation of the objectives, strategies and policies of the enterprise, it is a tool that facilitates or complicates the execution of the strategy chosen for managers (Eren, 2002). There is no need for the manager to spend time and linger to ensure the motivation and effectiveness of the workers, to control and organize the relationships between them, all of which are well-structured and well-established strong organizational culture (Adıgüzel & Küçükoğlu, 2019). In an organization with a weak organizational culture, employees lose time trying to determine what to do and how to do it. In short, weak cultures that do not have shared shared values, beliefs and behaviors are lagging behind their strong culture competitors because they cannot exhibit quickness and behavioral behavior in their organizational and environmental relations compared to the organization having strong culture at the stage of executing the determined organizational strategy (Eren, 2006). Organizational culture is an import-

ant element in the realization of the missions and strategies of an organization and in achieving institutional effectiveness and change. It is important because it is based on beliefs that are deeply believed and connected. The most important feature of successful organizations is that they have a conscious and strong culture. The more powerful and market-oriented a culture is, the fewer institutional schemes and policies in the organization. Those who work in such organizations know what to do even in the most difficult situation. Because the shared values that guide it self are very clear and precise. This is actually due to the richness of the mythologies that contain these values (Alvesson, 2012). Organizational culture is not written rules. When you enter organizational culture, you read it from the behaviors of the employees (İzgören, 2008). The organizational culture provides some benefits for the managers and other workers working in that organization. It is possible to examine them under six main headings (Altunay, 2006):

- Organizational culture helps employees understand specific standards, norms and values, and thus be more determined and consistent in achieving the expected success and work more closely with their managers. Organizational culture increases organizational efficiency by introducing standard practices to business methods and processes.

- Organizational culture contributes positively to their upbringing and development by helping new managers gain knowledge, skills and behaviors. Thus, managers are developed in accordance with the basic values and dynamics of the organization.

- Organizational culture plays a very important role in intra-organizational communication and interpersonal relations. Culture provides unity among workers, we develop sense and team spirit. It connects individuals to each other and to the business, but also improves the organization's climate in a positive way. In the event that the organizational culture constitutes a broad consensus, internal groupings and dichotomies can be prevented.

- Conflicts that arise for various reasons in organizations (conflicts arising from differences in goals, perception differences, relationship and power distribution for the organization, etc.) can be mitigated with the help of some standard practices and processes developed by organizational culture.

- Organizational culture makes the organizational life permanent by being transferred from generation to generation with symbols, ceremonies, heroes, slogans and stories. In some cases, even if the manager who owns the business dies, the culture and related beliefs and values persist.

- Culture is like an introductory identity. Evaluations about an organization are made with the culture of that organization. There are traces of organizational culture in behavior, attitude, internal and non-organizational relations.

## Classification of Organizational Culture

There are different types of organizational culture that give the organization a personality and distinguish it from the others. One of them is Schneider's classification, known for his research and studies on organizational culture. According to Schneider (2000), there are four types of culture that contribute to understanding the personality of the institution; control culture, cooperation culture, competition and culture of culture (Schneider, 2000). The classification made by Charles Handy, who also mentioned four different cultures, is the most accepted one (Handy, 1985). Handy divides organizational cultures into four different classes based on the work of Harrison, a psychologist (Fineman, 2009). Charles Handy, organizations in terms of structure, forms of management and paradigms of thought systems, power/authority culture, bureaucratic/role cultures, work or process cultures and individual/support cultures are divided into four groups (Handy, 2011). The types of organizational culture are briefly described under sub-headings below.

## Power/Authority Culture

In the culture of power, the ruling person or group can be analogized to the spider that rules the web (Barbera, 2014). In such organizations, the communication structure also has a central ity, as power and control are concentrated in the center. Decisions are made not by a participatory management approach, but by people in hill management. The organizational structure is quite simple. People who have earned the trust of the senior manager are very free in their decisions and practices. Therefore, rules and procedures have been minimized in such organizations. Bureaucratic practices are rare. Because of these features, they can make quick decisions and react quickly to the face of a possible danger (Keyton, 2011). In this culture, people who have authority are dominant, and other employees serve to fulfill the expectations of those who have power and authority. There is little or very small number of opponents of authority. Leaders need to have knowledge and experience as well as strength (Adiguzel & Cakir, 2019). As we move away from the center, power and authority disappear (Frost et al., 1985). Subordinates have to be willing to work and obedient to their superiors.

## Bureaucratic/Role Culture

People are assigned to different tasks according to their ability to perform functions. The required performance relates to the role and position. Performance above the role is not expected (Wright, 2004). Power cultures do not meet the needs of mass producing enterprises (Erengül, 1997). The division of labor required by specialization led to the emergence of a role culture. The ability of departments to continue their activities in organizations with role cultures depends on their good relations and communication with other departments. Hierarchies are obvious and promotions are based on expertise and standards for rewards and penalties have been developed. There is no reason why those who work in terms of ascension or career should not succeed to the extent that they intersect their personal goals with organizational objectives and identify with the organization (Gürgen, 1997). For employees, role culture is a safety factor. They know that if they give what is expected of them within certain periods of time, they will move forward and become experts in their fields. In market conditions where competition is heating and the customer demands more flexible service, the culture of role falls short. Interdepartmental communication disconnects start to create dissatisfaction with customers. Even if each department does its part, this does not mean that the final service meets the customer's needs at exactly the same rate. Routine exclusion can lead to disruptions because a system and mentality that will tolerate this flexibility is not developed. Problems are caused by interdepartmental disconnects rather than in-department operations. Therefore, it is important to first manage interdepartmental areas. This necessitates the need to flex the organizational structure. These structures, which are called matrix organizations, represent the business culture (Frank, 1998).

## Business-Process Cultures

The organizational structure gives the appearance of a matrix where various products and services intersect with functions in business cultures. The departments shown vertically and the interdepartmental teams represented horizontally are organized on a customer and project basis. Power is gathered at the intersection of vertical functions and horizontal services, and is based on expertise. Emphasis on the definition of success is in the work of the work. For this reason, resources are expected to be successful by handing over to the experts of their work. As the number of experts increases, power is shared. The team leader puts a participatory style into practice. It transfers vision to the team and ensures its understanding and adoption. In terms of customer satisfaction, it is seen that bureaucratic cultures do not provide optimality compared to business cultures. In the first, the guys believe they work for hill management and the boss. The proce-

dure outweighs orientation. In business cultures, team members are free disqualified from the constraints that can be described as department allotments because they work customer-oriented (Karadal & Adıgüzel, 2017). Teams created with a specific project, customer, or workflow in mind can disperse or adapt to another project when the job is finished. For this reason, business cultures have the advantage of competition in environments where the product is rapidly renewed and competition is fierce. In these cultures, specialization has been replaced by competencies such as rapid response, holistic approach to events, sensitivity and creativity. Marketing enterprises, consultancy organizations, advertising agencies work in an environment that is prone to this culture (Martin, 2001).

## Individual/Support Cultures

In organizations with this kind of culture, the individual does not serve the organization, but the organization serves the individual. Since the existence of the organization is secondary to the existence of the individual, the organization cannot expel the individual from its structure, and if the individual wishes, the organization automatically leaves the organization. Managerial power is shared among individuals and is based on expertise (Adiguzel & Kucukoglu, 2019). In an organization like this, because everyone is a star in their own right, the organization resembles a galaxy. Professional chambers, bar associations, some consultancy companies are in this position. In some cases, even if the organizational culture is different, the approach of individuals may remind the individual culture. For example, the approach of legal counsels in enterprises or the engineer looking at construction services in a bank to the organization evokes this culture (Barbera, 2014). Since there is no hierarchy in such organizations, control is not possible. However, with the joint consent of the group members, a mechanism can be developed to supervise themselves (Çelik, 2007). The least common individual culture among other cultures deals with the needs of individuals within this culture. The problem with such organizations is that growth scares the individual culture. As the organization grows, the organization becomes more important. As soon as an individual culture is formed, it can turn into a culture of role or power in a very short time. In this culture, individual success results from sharing individual values with a group of individuals who think like them and supporting values by this group (Parker, 2000).

## Definition of Business Ethics

In today's business world, businesses are competing indefinitely with each other. In order to continue their activities, they have constantly had to deal with issues such as profitability, growth and competitiveness. During

the restructuring process, the role of business ethics in the business world has been questioned again. The expectations of societies from business ethics aimed at organizing the business world have also increased. In order to decide what business ethics is, we must first define it. the moral problems arising in business management are not of a black-and-white nature; includes gray tones. In solving these, we have to find out what is going on laws, regulations, statutes or absolute facts (Tierney, 1997). Although the laws carry out the task of regulating all areas of socio-economic life, they leave gaps that they cannot necessarily reach. Business ethics plays a big role in solving all these grey areas. As it is treated in accordance with the ethics of the work, it contributes to the survival of the community in a healthy structure. In this respect, business ethics is a system of norms and values that are required and prioritized not only by the enterprise but also by society. As a result of the development of trade, industry and service sectors, small-size enterprises have been formed. The ethical problems that arise as a result of these businesses setting making money as their main goal have made it necessary to look at these areas from an ethical point of view. How can businesses be ethical? Can money and ethics coexist? Can ethical behavior be gained? Business ethics approaches aim to provide information and principles that will reduce ethical problems in business life (Tepe, 2009). The increase in ethical problems in today's business world is higher than in previous years. The current state of business ethics does not meet the expectations of society's business ethics. In the business world, the state of ethical values has increased since the 1980s and reached a serious level. As businesses turn to unethical practices, they disrupt the functioning of the free market and contribute to economic crises. The inadequacy of economic policies regulating free market mechanisms causes businesses to turn to unethical practices. In these aspects, the existence of economic policies, which are the regulator of the free market, and the multitude of enterprises acting in accordance with business ethics reduce the risk of economic crises. Societies pay the most for economic crises. Therefore, acting in accordance with business ethics can be the greatest social responsibility that can be made to society.

## Professional Ethics

In ancient times, economics meant economic activity, which consisted of one or more professions. Trade, as it is known, is one of the oldest professions. When looking at the sacred religious books written in ancient times, it is emphasized that trade should be done within certain moral principles and rules. "Trade ethics" is the oldest known type of professional ethics in this sense. Today, however, the volume of economic activities - beyond trade - has been quite enlarged and has hosted countless profes-

sions. Although there are some common principles for each profession, different professions must also have their own moral principles (Aktan, 2004). According to Durkheim and Giddens (1986), stated that each profession should have its own ethics by saying that there are more professions than there are separate professions. Professional ethics are shaped specific to the profession and include internal regulations. Since the exercises and interlocutors of each profession may be different, it is natural to change the values on which they are based. According to Sökmen and Tarakçıoğlu (2011), each profession has its own unique qualities and requirements. These requirements load some assignments to the professional, and these assignments bring with them some responsibilities. The first of these is physical and mental ability and competence, which is essential for the continuation of the profession. Another important responsibility is the preservation of professional honor. The spiritual element that strengthens the professional honor is the sense of responsibility of the members of the profession and it is pointless to speak of professional honor without this feeling.

## Business Ethics

According to Leisenger, if anything is to be done beyond conveying the knowledge of traditional moral philosophy to people or giving romantic idealism, then ethic business ethics should be lowered from the sky formed by the ides and values and inserted into the reality of daily life (Tepe, 2009). Business ethics is that the enterprises operating in the economic field have their own special moral principles, values and norms. In this respect, the ethics of business, such as professional ethics, is not carried by the individual, but as a business as an institutional nature (Özdemir, 2009). According to Arslan (2005), the ethics of business represent the corporate or organizational ethics of a business. Since the organizational culture makes the business a cultural unit, it also makes the business a moral whole. In other words, as well as the individual moral tendencies and philosophies, working ethics and professional ethics of the individuals working in the enterprise, apart from them, the business also has its own moral tendency and philosophy.

According to Leisenger, the ethics of business can be created by the following three items:

· First: It's a moral mind.

· Second: Codes of conduct (ethical codes).

· Third: Personnel and education policies.

## Ethical Awareness

Ethical awareness is the first step in the ethical decision-making process. At this stage, the individual is also aware that an ethical issue or situation arises and is a process in which he or she judges on ethical concepts. This process should not be omitted. Sometimes people don't realize words or innuendos that emphasize an ethical situation. When this happens, the individual cannot reach the ethical decision-making process. Research on ethics shows that three factors are important in raising ethical awareness:

(1) Individuals, by the persons they work with, are constantly considering ethical situations;

(2) If the ethical organizational language is used by the decision-maker in everyday tasks;

(3) The person has repeatedly considered that he or she may harm someone else because of his or her decisions. The use of ethical words (honesty, justice, compliance with rules, reliability or lying, theft, deception, etc.) will trigger ethical thinking. Because these concepts contain more content in an individual's cognitive sensitivity. For example, when your boss asks you to sign instead, you will see that this concept is more effective when you put it in fraud instead of signing it in place of someone else. Because when you refer to it as fraud, your boss will be more sensitive to it. Another example is the massacre in which 800,000 Tutsi women, children and men were killed by the Hutsis in 1994, as the Hotel Rwanda. Former US President Clinton refused to accept the incident as a massacre for six weeks. Because according to him, if he used that word, he'd have to act. The president later described my failure to help the Rwandans as my greatest regret. The fact that the President did not use the word massacre contributed both to the administration not taking the necessary precautions and to creating the necessary public opinion in the US people. Implicit use of words reduces the sensitivity of individuals to ethical decision-making and implementation. That is, it reduces ethical awareness (Trevino & Nelson, 2011).

## Relation of Human Resources Management Functions and Business Ethics

The concept of ethics, which has been questioned in every field of life, has also started to be researched within the business world and has become a concept in which its existence gains meaning and importance. One of the reasons why ethics is a remarkable issue in the field of business administration is the ethical scandals in the enterprises. These scandals have shaken trust in businesses and ethical issues have revealed how important the issue is (Atmaca, 2010). Although there are developments that prevent business-

es from acting ethically and make ethical behavior even more difficult, it is out of the question to leave ethical behavior in businesses depending on personal preferences, external environmental conditions or time. It is inevitable that management will step in to share common beliefs and values, to establish an ethical understanding, and at this stage, especially human resources management will take initiative for specific measures (Velasquez & Velazquez, 2002). Whether a business has an ethical understanding is in line with the ethical values of the manpower of the enterprise. Therefore, it can be said that the determination and implementation of the ethical principles of enterprises is the subject of direct human resources management interest and work (Filizöz, 2011). Ethics in human Resources function is to act first and foremost in accordance with fair and generally accepted ethical principles to employees. Since almost all management-related practices will affect employees, it is possible to look at all management practices of interest to employees as ethical problems in human resources. Apart from the problems between managers and employees, ethical problems may also arise in terms of the relationship between employees (Arslan, 2005). Managers and employees are not only required to comply with the law, whether a decision or conduct is ethical; they should consider doing the same thing to someone else, announcing this behavior in the media, or learning from the mother, father and family members. Such an assessment would serve as an effective filter for many people (Barutçugil, 2004). The sensitivity and determination of senior management, ethical codes-rules, ethical training, ethical corporate culture, ethical decision-making, strategic management processes such as to be successful and to bring to the organizational structure of human resources management should assume various roles (Weiss, 1994). However, it should not be understood that HR functions are a medium for ethical problems. The role of HR at this point is to create positive ethical changes within the enterprise and to play the central role of the company's ethical efforts (Dessler et al., 2005). Human resources policies are based on ethical codes, harmonizing ethical codes with culture, teaching and adopting ethical codes to employees is one of the important tasks that Human Resources Management will perform. At the same time, processes such as establishing the structure of ethical decision-making processes, controlling ethical behavior and rewarding ethical behaviors are the areas in which human resources management should take an active role. Human Resources Management will make significant contributions to the establishment and maintenance of an ethical structure with the responsibilities it assumes in these processes (Saylı & Kızıldağ, 2007).

## Business Ethics in Human Resource Stewardship Functions

In HRM, all practices ranging from the labor planning process to the recruitment of new employees have an ethical dimension (Korczynski, 2002). As the HRM function is based on system logic, the ethical principles ignored in any decision and activity will negatively affect the effectiveness of business ethics in HRM as a whole. There are different assessments of functions in HRM. According to Scott; selection and placement, training and development, ensuring and motivating employees to stay in the organization are the four basic functions performed in HRM. In another function, it is related to managing the process of dismissal of employees when necessary. According to another study, personnel selection, training and development, performance evaluation and compensation functions are the most applied HRM functions by organizations (Batt, 2000). Although it is a necessity to perform all functions with the same efficiency as required by system logic in HRM, the studies carried out reveal that the organizations have deficiencies in the process of putting this discourse emphasized in the literature into action.

## Business Ethics in Education and Development Function

There are different ethical issues that arise in the implementation of the training and development function (Woodall & Douglas, 2000). HR managers aiming to institutionalize business ethics are obliged to consider these ethical issues at every stage of the function execution. Analyzing the training needs of the employees and revealing the nature of this need constitutes the first stage of the training and development function. At this stage, it is important to present the current situation on the basis of objective criteria. More clearly, impartial evaluation of the current qualifications and performance of employees is required in order to avoid a situation that will lead to discrimination among employees. Organizational management will expect employees to improve their performance in return for training and development support (Szalkowski & Jankowicz, 1999). If there is a positive difference in employee performance before and after training, it can be said that the training and development function has successfully achieved its purpose.

The most important ethical issue to be considered regarding the final stage in which the effectiveness of training and development programs is evaluated is related to the criteria and methods used in the evaluation. Objective criteria should be used when assessing the extent to which the programs have achieved their objectives. At the same time, these criteria should be applied consistently to all employees participating in the training, regardless of the difference. Otherwise, subjective evaluations will

contradict the principle of justice. In addition, sharing the evaluation results with employees will be a necessity for the function to be carried out in an ethical context.

With the provision of training and development, they will be able to improve their performance in their current business and gain the skills and skills required by future positions. Organizations offer the opportunity to realize the career plans of the employees in this direction through career management practices. Important ethical issues are also on the agenda in presenting this opportunity. First of all, the principle of equal opportunities should be adopted in providing career development opportunities to employees. In addition to providing equal opportunities in career development, promotion decisions, which mean that employees can move to new positions, should be taken in line with objective criteria.

## Business Ethics in Performance Evaluation Function

The use of the outputs from performance evaluation in important decisions about employees is an important factor that requires that the process be carried out in an ethical framework. If the process is carried out within the framework of business ethics, the quality of the outputs to be achieved and the decisions to be based on these outputs will also increase. It would be ideal to take advantage of the guiding of the principles of accuracy, honesty, fairness and equal opportunities at every stage of the performance evaluation process. However, in most of the studies in the literature, it is observed that the process can be carried out for political purposes. In this respect, evaluation must cover ethical principles in order to do not serve political interests (Buckley et al., 2001). The responsibility of conducting the process within the framework of ethical principles belongs to the HRM department (Saylı & Kızıldağ, 2007). There are ethical principles that guide practitioners in conducting the performance evaluation function within the framework of business ethics. These principles include;

· Respecting individuals,

· Mutual respect,

· Conducting the process in accordance with procedural justice,

· To be transparent in decisions taken (Winstanley & Stuart-Smith, 1996).

In this sense, the individual rights of employees other than the functioning identities should be respected. At the same time, employees should respect the executives who undertake the task of evaluation and establish

a communication between the parties based on mutual openness, accuracy and transparency. Every employee must be rewarded for his or her efforts. Otherwise, decisions will be contrary to business ethics (O'Higgins & Kelleher, 2005). Today, organizations use performance evaluation outputs, especially wages, to make critical decisions such as promotion, training and development, and dismissal, in order to ensure fairness among employees. However, the current situation brings with it ethical problems. Many of these problems stem from the fact that the performance evaluation process is not conducted correctly, fairly, without prejudice, objectively (Sillup & Klimberg, 2010; Valentine, 2010). Different ethical issues come to the fore in deciding on which criteria and standards employees will be evaluated as the first stage in performance evaluation. Accordingly, the criteria and standards set out should be objective and applied equally to everyone regardless of the characteristics of employees such as religion, language, race, gender, age and political considerations (Winstanley & Stuart-Smith, 1996). Therefore, the difference of the criteria should not be due to the characteristics of the valued persons, but from the requirements of the works. At the same time, the criteria used should be measurable, agreed upon and free from prejudices (Weaver & Trevino, 2001; Wooten, 2001). The same principles should be taken into consideration when setting valuation standards. In addition, setting targets that are too easy or too difficult to achieve in relation to the performance expected from employees will be contrary to the principle of justice (Sillup & Klimberg, 2010). The basic criterion to consider in determining the methods or methods to be used to measure the performance of the employees is the potential of the method to present the truth in the most accurate and fair way. Accordingly, the most appropriate method should be chosen by discussing the benefits and drawbacks of each method. In addition, in order for the chosen method to be applied effectively, the evaluators must be knowledgeable and experienced in implementing the method. In addition, in practice, evaluators should try to be objective and refrain from including discriminatory prejudices such as religion, language, race, gender, political thought. Ethical principles should also be considered in controlling the outputs obtained in performance evaluation. For this reason, factors such as the characteristics of employees and their connection to management should not be effective in controlling the evaluation results. In other words, the results should not be changed, and if performance targets have not been achieved, they should not be shown as if the results have been achieved by making modifications (Wooten, 2001). Feedback to employees about performance results is the final stage of evaluation (Longenecker & Ludwig, 1990). Feedback about employees' performance is ethically responsible. Care should be taken to treat employees with particular negative feedback with more respect (Weaver & Trevino, 2001).

## Business Ethics in The Wage Management Function

Although the number of studies related to business ethics and HRM has increased rapidly, few of these studies focus on the relationship between wage and business ethics (Gomez-Mejia & Werner, 2008). In the studies conducted to clarify this issue, it is seen that high-performance organizations base their relationship with employees on the principles of trust, respect and honesty (Bloom, 2004). For this reason, it will not be wrong to say that the success level of organizations applying ethical principles as in other functions in wage management will be high. In a study conducted by Gomez-Mejia and Werner (2008), the relationship between business ethics and wage management function is expressed as compensation ethics. In this respect, the researcher defined wage ethics as benefiting from the guidance of ethical norms, principles and standards in order to improve the ethical qualities of wage-related strategies, policies and decisions paid to employees (Gomez-Mejia & Werner, 2008). The first stage of wage management consists of business analysis and business valuation. Objectivity should be kept in the foreground and the real situation should be reflected in the business analysis in determining the features that the work and the people who will do it should have. In order to do this, it should not be shown more than the features required by the job and which should be required by the employees to do this work. Employees constantly compare the wages of employees who perform similar tasks in and out of the organization with their own wages. In the studies performed, it is revealed that the employees give the most importance to the equality between the employees doing similar jobs and their own wages (Till & Karren, 2011). In cases where the equal pay for equal work principle is violated, employees will perceive injustice in the relationship between their employers and their labor-wage exchange as a result of their comparisons (Freedman, 1978). Job satisfaction of employees who perceive injustice in wages will be affected negatively (Kümbül, 2006). In order to prevent this situation, HR managers should be based on equality and consistency in remuneration (Adiguzel, 2019). According to Valentine (2010), organizations will be able to develop a performance evaluation system that is free from prejudice and subjectivity and can adopt a remuneration policy to instill a sense of justice within the organization. Researches show that employees are more interested in how much wages are given to them rather than how much they are paid (Bloom, 2004). Therefore, employees' perceptions of justice and equality related to the wage management process will depend to a large extent on the objectivity of the criteria to be used. For this reason, the wage differences between the employees should be based on the data reflecting the current situation such as the quality of the job and the performance level (Storey, 2007). At this stage, HR managers should review the objectivity of the criteria used in

determining wage and make the necessary updates (Karadal et al., 2018). Koys (2001) and, Budd and Scoville (2005) argue that in addition to market research, profitability of organizations will be important in determining wages. According to him, organizations operating with a profitability rate above the industry average have ethical responsibility to pay their employees more than the industry average. Because profitability above the industry average can be realized due to the high performance of the employees. Wage system and determination of wage level also include ethical issues. It is very important that the system to be used in determining wages reflects the value that employees contribute to the organization. In the literature, the concept of organizational justice is emphasized in most of the studies on wage systems. Studies conducted in this direction have demonstrated the role of the principle of justice in designing wage systems. Thus, wage systems are treated as a reflection of the values of organizations and their approach to business ethics (Bloom, 2004). In addition to the principle of justice, any discrimination that may be made between employees can be prevented on the basis of the principle of equality in the formation of wage system (Buckley et al., 2001). In wage management, employees should be informed about the criteria they determine and how the wages they receive are determined and how they are calculated. it is an important requirement that employees be properly informed in terms of work ethics. Therefore, it should be transparent and shown to these employees at every stage of the process (Armstrong, 2006). It is an ethical responsibility for HR managers to be equally distant from all employees and to embrace fairness in the process of determining wages. In addition, timely payment of employees' wages is also among the ethical issues.

## Suggestions for Future Studies

The desire to respond to the change with the human resources developed is the most important reason that pushes organizations to offer training and development support. The belief that the success of organizations will increase as a result of increasing their efficiency by making a systematic and consistent investment in employees encourages organizations to make efforts in this direction. Factors such as adapting to changing technology, gaining new skills for employees, increasing the quality of human resources, strengthening employees' positive behaviors, increasing productivity, increasing employee loyalty to organizational values, reducing labor turnover and absenteeism lead organizations to perform training and development activities (Buckley & Caple, 2009; Canman, 2000; Woodall & Douglas, 2000). There are certain stages in the execution of the training and development function. When taken as a process, education and development are generally divided into four phases. These include: determining

the need for education and development, setting out educational objectives, preparing and implementing programmes (Armstrong, 2006). One of the most important stages of the training and development function is to determine the need for training and development. Career management outputs provide important data in determining this need. On the other hand, since the content and quality of the programs to be prepared will be based on this analysis, it is very important that the need is presented correctly. In general, the need for training arises due to the difference between the current performance of the employees and the level of performance envisaged in the future. Although different methods and techniques are used to determine the need for training in this direction, these methods intersect at the point of comparing the current and future situation. After the level and nature of the training and development needs of the employees are established, the content of the training program is prepared. The following practices are: determining the training objectives, the scope of the program and educators, determining the employees to be trained, determining the duration and location of the training and deciding on the method of education (Bayraktaroğlu, 2006). In organizations, the task of designing and implementing the performance evaluation system in general is given to HR managers. Therefore, the effectiveness of the process can be said to depend largely on the success of HR managers (Weaver & Trevino, 2001). In addition to the approach of HR managers to the process, the support of senior management and the attitudes of the employees will determine the quality of the outputs to be obtained in performance evaluation. The first stage of the performance evaluation process is the determination of performance evaluation criteria and standards. Which criteria will be based on the evaluation is an important decision in terms of the objectivity of the process (Ugur, 2008). The validity and reliability of the performance evaluation system will depend largely on the criteria used. For this purpose, the selected criteria should really be criteria that can be used to measure employee performance (Bayraktaroğlu, 2006). In addition to validity, the selected criteria must have the characteristics of being objective, measurable, specific, achievable, time-dependent and compatible with organizational objectives (Peterson et al., 2011). Valuation standards are also used to demonstrate the performance of employees, and are used as a basis for comparing existing and expected performance. In this sense, setting consistent and accurate performance standards is inevitable for the success of the process (Sillup & Klimberg, 2010).

## Discussion

The use of subjective criteria such as proximity to senior management, gender, religion and political thought in determining wages will be uneth-

ical and will cause discrimination (Wooten, 2001). It is known that remuneration based on gender discrimination is frequently on the agenda today, and this practice of discrimination is an important problem in working life (Gunderson, 1994). In general, it is accepted that gender discrimination in remuneration triggers discrimination in remuneration in the economic status of women at a lower level than men. Moreover, the acceptance that women and men do not have equal job opportunities also explains the other reason for discrimination (Appelbaum & Mackenzie, 1996). Studies show that women's potential balance with men is adversely deteriorated due to inequality of opportunity. With this fact, it is fair to say that HR managers are obliged to take corrective measures to correct the current situation and that they can fulfil these obligations with the guidance of the principles of justice and equality.

Equal employment opportunity, which is one of the most basic human rights, is one of the most discussed topics in HRY. Discussions in this direction provide evidence that discrimination is more common in western and other countries than in the process of recruiting and placing personnel than other HRY functions (Bennington, 2007). Studies show that the principle of equal opportunities in employment is not yet fully reflected in the practices and in this sense the fact that the discourse cannot be translated into action is underlined. Therefore, it is an important requirement to emphasize the importance of ethical principles in the process of selecting and placing personnel. The minimum qualifications that should be in the candidates who will fill the position are determined before the announcement is made about the vacancies that arise in the organizations. It is an ethical issue to provide symmetry between the specified qualifications and the requirements of the position. Because, according to these qualities, the candidates will decide whether to apply or not. For this purpose, the requirements of the position should be determined objectively and the candidates should be informed correctly (Armstrong, 2006). The most important ethical issue at this stage is that the qualifications sought in the vacant positions are not shown more than required by the job. At the same time, race, gender, religion and similar factors should not be included in the determination and announcement of the minimum characteristics required by the vacant position that will not prevent or support the performance of the job (Scott, 2016). Otherwise, such practice would mean ignoring the requirements of the equal opportunity principle. Organizations should choose an announcement method to ensure that as many candidates are aware of their vacancies as possible. In addition, equal potential should be provided for all potential candidates to apply for a job (Alvesson & Sveningsson, 2015). While ensuring this opportunity is a requirement of business ethics, the possibility of making the right decision will be increased by ensuring that

more candidates apply. The most important ethical issues that emerge after the announcement of vacant positions in organizations are; In order to protect the confidentiality of the information about the applicants and to fill in the applicants, questions and expressions that can be considered as disrespecting human rights are not included (DesJardins & McCall, 2014). In addition, these forms should not contain questions about information that does not require the requirements of the job that will cause discrimination among the candidates. It is frequently discussed that organizations do not show the necessary sensitivity in this regard.

## Conclusion

Organizational culture performs a number of organizational functions. First, it presents a role-model that determines boundaries. In the same way, a peer separates an organizational development by revealing the differences between others. Secondly, it increases the sense of identity of the members of the organization and keeps it alive. Third, it makes it easier for people to engage more in common value than in individual interests. Fourth, it strengthens the social system. It transforms what human resources or members have to say and do into a social structure through appropriate standards. Fifth, it creates a control mechanism that directs and shapes the attitudes and behaviors of the members (Akdemir, 2005; Driskill, 2018). The organizational culture has developed a number of functions in solving survival and external integration problems and integration problems. aIn order to survive and solve external adaptation problems, the mission and strategies, that is, employees, managers and employees within the enterprise, must know the enterprise. In particular, they need to know the external environmental characteristics. They need to know the characteristics of the tools the organization will use to achieve its objectives and what it will do. It is necessary to develop a common opinion on the criteria used to measure how the group, such as information and control systems, can better achieve objectives. It is essential to develop a common idea of creating appropriate remedial or restorative strategies if they fail to achieve their objectives. In addition to these functions, there are also functions developed in solving problems in internal integration. The first is common language and conceptual classifications. The language used by the members of the organization must be the same. They have to classify the jobs well. Power and status are important. jobs must be distributed according to members of a certain status. It is wrong to include and employ a specialized worker in lower echelons. If the bonds of intimacy, respect, love and friendship among the members of the organization develop well, the organization will be more successful in its objectives. At the same time, it is necessary to establish a reward-punishment system among employees to

increase the commitment to work, to speed up the work and to make the most of it (Yeniçeri, 2006).

One of the most important ethical issues in the personnel selection process is consistency. Therefore, the process must be consistent for all candidates. All applicants must be tested in the same interview process and shown to be at the same distance without discrimination (LRenz, 1992). Candidates' perceptions of injustice related to the election process will both adversely affect the image of the organization and may be an expression that the sensitivity of business ethics is not high. In practice, however, it is known that organizations often do not show the necessary sensitivity and have certain prejudices. As a matter of fact, in a study, it was determined that the participating organizations prioritize applicants from applicants to graduates from certain universities (Yeloğlu, 2004). This practice is considered unethical because it is of a nature to impair equal opportunities among candidates. The effective implementation of the personnel selection and placement function will be directly related to the clear and accurate execution of the process. In this regard, both candidates and organizations have important responsibilities. It is a requirement of ethical principles for candidates to provide accurate and honest information about the qualifications of the candidates, the working conditions of the organizations and the requirements of the work to be done. Today's organizations are developing their own unique methods to make the recruitment process more valid, reliable and fair. These different methods aim to evaluate the abilities and personalities of the candidates more accurately. However, important ethical issues arise as a result of the use of these methods during the selection process (Szalkowski & Jankowicz, 1999). The most important factor that should be taken into consideration when applying the methods such as interview, test and evaluation centers used in the selection of the candidates to be employed is that these methods are used only to measure the skills and experiences of the candidates. For example, in the interview method, the questions to be asked to the candidates should be respectful of personal rights and should not violate the privacy of their private lives (Scott, 2016). At the same time, the methods that will support the decision making of the personnel selection should be applied to the candidates in the same way without discrimination and the data obtained as a result of applying these methods should be evaluated according to objective criteria.

# REFERENCES

Adiguzel, Z. (2019). Examination Of The Effects Of Despotic Leadership And Strategic Human Resources Management On The Employees In The Business World. *Yönetim ve Ekonomi Araştırmaları Dergisi*, 17(1), 143-162.

Adiguzel, Z., & Cakir, M. (2019). To Examine the Effects of Relations Between Leader and Employees on Communication, Creativity and Innovation in Organizations. *International Journal of Entrepreneurship and Business Innovation*, 2 (1), 1-22.

Adıgüzel, Z., & Küçükoğlu, İ. (2019). The Effects of Psychological Violence on Organizational Culture and Organizational Citizenship Behaviour. *IBAD Sosyal Bilimler Dergisi*, (5) , 185-202 . DOI: 10.21733/ibad.623382

Adiguzel, Z., & Kucukoglu, I. (2019). Examining of The Effects of Employees on Work Stress, Role Conflict and Job Insecurity on Organizational Culture. *International Journal of Economics and Management*, *1*(4), 37-48.

Akdemir, B. (2005). Küresel rekabet ortamında insan kaynakları yönetiminin değişen rolü: Stratejik insan kaynakları yönetimi. *Sosyal Siyaset Konferansları Dergisi*, (49).

Aktan, C. C. (2004). Toplam Ahlak: Temiz Topluma Doğru. *İstanbul: Zaman Kitap*.

Altunay, Ö. (2006). Örgüt yapısındaki değişimlerin örgüt kültürü üzerindeki etkilerinin belirlenmesine yönelik bir araştırma. *Yayımlanmış yüksek lisans tezi, Kütahya: Dumlupınar Üniversitesi*.

Alvesson, M. (2012). *Understanding organizational culture*. Sage.

Alvesson, M., & Sveningsson, S. (2015). *Changing organizational culture: Cultural change work in progress*. Routledge.

Amado, G., Faucheux, C., & Laurent, A. (1991). Organizational change and cultural realities: Franco-American contrasts. *International Studies of Management & Organization*, *21*(3), 62-95.

Appelbaum, S. H., & Mackenzie, L. (1996). Compensation in the year 2000: pay for performance?. *Health Manpower Management*, *22*(3), 31-39.

Armstrong, M. (2006). *A handbook of human resource management practice*. Kogan Page Publishers.

Arslan, M. (2005). Is ve Meslek Ahlaki (Business and Professional Ethics). *Ankara: Siyasal yayinevi*.

Atmaca, K. (2010). Insan Kaynaklari Yönetimi ve Etik. *Sayistay Dergisi. Ocak-Mart, Sayi*, *76*.

Barbera, K. M. (2014). *The Oxford handbook of organizational climate and culture*. Oxford University Press.

Barutçugil, İ. (2004). *Stratejik insan kaynakları yönetimi*. Kariyer Yayınları.

Batt, R. (2000). Managing customer services: Human resource practices, turnover, and sales growth.

Bayraktaroğlu, S. (2006). İnsan Kaynakları Yönetimi,(Adapazarı: Sakarya Yayıncılık, 2. Baskı).

Bennington, L. (2007). HR managers as ethics agents of the state. *Human resource management: Ethics and employment*, 137.

Bloom, M. (2004). The ethics of compensation systems. *Journal of Business Ethics*, *52*(2), 149-152.

Buckley, M. R., Beu, D. S., Frink, D. D., Howard, J. L., Berkson, H., Mobbs, T. A., & Ferris, G. R. (2001). Ethical issues in human resources systems. *Human resource management review*, *11*(1-2), 11-29.

Buckley, R., & Caple, J. (2009). *The theory and practice of training*. Kogan Page Publishers.

Budd, J. W., & Scoville, J. G. (Eds.). (2005). *The ethics of human resources and industrial relations*. Cornell University Press.

Can, H., Aşan, Ö., & Aydın, E. M. (2006). Örgütsel Davranış, Arıkan Yayınları, İstanbul.

Canman, D. (2000). İnsan Kaynakları Yönetimi, Ankara. *Yargı Yayınevi*.

Çelik, M. (2007). Örgüt Kültürü ve örgütsel vatandaşlık davranışı-bir uygulama. *Yayınlanmış Doktora Tezi). Erzurum: Atatürk Üniversitesi Sosyal Bilimler Enstitüsü*.

DesJardins, J. R., & McCall, J. J. (2014). *Contemporary issues in business ethics*. Cengage Learning.

Dessler, G., Sutherland, G., & Cole, N. D. (2005). *Human resources management in Canada*. Pearson Education Canada.

Driskill, G. W. (2018). *Organizational culture in action: A cultural analysis workbook*. Routledge.

Durkheim, E., & Giddens, A. (1986). *Durkheim on Politics and the State*. Stanford University Press.

Eren, E. (2002). Stratejik yönetim ve işletme politikası. *İstanbul: Beta Yayınları*.

Eren, E. (2006). *Örgütsel davranış ve yönetim psikolojisi*. Beta Basım Yayım Dağıtım.

Erengül, B. (1997). *Kültür sihirbazları: rekabet üstünlüğü sağlayan yönetim*. Evrim Yayınevi.

Filizöz, B. (2011). Etik ve etiğe ilişkin temel kavramlar. *Editör: Zeyyat Sabuncuoğlu. İşletme Etiği. İstanbul: Beta Yayımcılık*.

Fineman, S., Gabriel, Y., & Sims, D. (2009). *Organizing & organizations*. Sage.

Frank, T. (1998). *The conquest of cool: Business culture, counterculture, and the rise of hip consumerism*. University of Chicago Press.

Freedman, S. M. (1978). Some determinants of compensation decisions. *Academy of Management Journal*, *21*(3), 397-409.

Frost, P. J., Moore, L. F., Louis, M. R. E., Lundberg, C. C., & Martin, J. E. (1985). *Organizational culture*. Sage Publications, Inc.

Gomez-Mejia, L., & Werner, S. (2008). Universal and national norms for Organizational Compensation Ethics: Using severance pay as an illustration. In *Global Compensation* (pp. 51-62). Routledge.

Gunderson, M. (1994). Pay and employment equity in the United States and Canada. *International Journal of Manpower*, *15*(7), 26-43.

Gürgen, H. (1997). *Örgütlerde iletişim kalitesi*. Der Yayınevi.

Handy, C. (2011). *Beyond Certainty: the changing worlds of organisations*. Random House.

Handy, C. B. (1985). Understanding Organisations, tredje upplagan.

İzgören, A. Ş. (2008). *Geleceğin organizasyonunu yaratmak:" şirketler için bir değişim ve yeniden yapılanma kılavuzu"*. Elma Yayınevi.

Karadal, H., & Adıgüzel, Z. (2017). Despotik Liderlik ve Stratejik İnsan Kaynakları Yönetiminin, Kural Çiğneme ve Örgütsel Bağlılık Üzerine Etkileriyle, Stratejik İnsan Kaynakları Yönetiminin Ara Değişken Etkisinin İncelenmesi. *Eurasian Academy of Sciences, Eurasian Business & Economics Journal*, 1, 1-10.

Karadal, H., Adiguzel, Z., & Artar, M. (2018). Investigation of The Mediator Effect of Strategic Management in The Relationship Between Ethics Leadership, Job Satisfaction and Intention to Leave. Journal of Management Marketing and Logistics, 5(1), 66-77.

Karlöf, B. (1996). Çağdaş Yönetim Kavramları ve Kalkınma Modelleri,(çeviren: Ziya Kütevin, Eshar Kütevin). *İnkılap Kitabevi, İstanbul*.

Kaya, B. (2003). *Bütünleşik kurumsal iletişim*. Siyasal Kitabevi.

Keyton, J. (2011). *Communication and organizational culture: A key to understanding work experiences*. Sage.

Korczynski, M. (2002). Human resource management in the service sector. Basingstoke: Palgrave.

Koys, D. J. (2001). Integrating religious principles and human resource management activities. *Teaching Business Ethics*, *5*(2), 121-139.

Köse, S., Köse, S., & Ünal, A. (2003). *Farklı toplumsal kültürler, örgüt yapıları, liderlik davranışları*. İzmir Güven Kitapevi.

Kümbül, B. (2001). Ücrette Adaleti Sağlayan Performansa Dayalı Ücret Sistemleri. *ISGUC The Journal of Industrial Relations and Human Resources*, *3*(1).

Longenecker, C., & Ludwig, D. (1990). Ethical dilemmas in performance appraisal revisited. *Journal of Business Ethics*, *9*(12), 961-969.

LRenz, G. (1992). Fairness in the Selection of Employees. *Journal of Business Ethics*, *11*, 331-340.

Martin, J. (2001). *Organizational culture: Mapping the terrain*. Sage publications.

O'Higgins, E., & Kelleher, B. (2005). Comparative perspectives on the ethical orientations of human resources, marketing and finance functional managers. *Journal of Business Ethics*, *56*(3), 275-288.

Ott, J. S. (1989). *The organizational culture perspective* (pp. 221-243). Chicago: Dorsey Press.

Özalp, İ. (2004). İşletme *Yönetimi*, Birlik Ofset Yayınları, Eskişehir.

Özdemir, S. (2009). Günümüz Türkiye'sinde akademik iş ahlakı çalışmalarına genel bakış. *İşletmelerde İş Etiği*, 2009-23.

Parker, M. (2000). *Organizational culture and identity: Unity and division at work*. Sage.

Peterson, M. F., Ashkanasy, N. M., & Wilderom, C. P. (2011). *The Handbook of Organizational Culture and Climate*. Sage Publications, Inc.

Pettigrew, A. M. (1979). On Studying Organiza-tional Cultures Andrew M. Pettigrew. *Administrative science quarterly*, *24*(4).

Piters, T., & Uoterman-ml, R. (2012). In Search of Excellence: Lessons from America's most successful companies.

Reichers, A. E., & Schneider, B. (1990). Climate and culture: An evolution of constructs. *Organizational climate and culture*, *1*, 5-39.

Sashkin, M., & Kiser, K. J. (1993). *Putting total quality management to work: what TQM means, how to use it, & how to sustain it over the long run*. Berrett-Koehler Publishers.

Saylı, H., & Kızıldağ, D. (2007). Yönetsel etik ve yönetsel etiğin oluşmasında insan kaynakları yönetiminin rolünü belirlemeye yönelik bir analiz.

Schein, E. H. (1985). Defining organizational culture. *Classics of organization theory*, *3*(1), 490-502.

Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.

Schneider, W. E. (2000). Why good management ideas fail: the neglected power of organizational culture. *Strategy & Leadership*, *28*(1), 24-29.

71.     Scott, E. (2016). Ethics and human resource management. In *Practicing professional ethics in economics and public policy* (pp. 215-221). Springer, Dordrecht.

Sillup, G. P., & Klimberg, R. (2010). Assessing the ethics of implementing performance appraisal systems. *Journal of Management Development*, *29*(1), 38-55.

Şimşek, N., & Fidan, M. (2005). Kurum kültürü ve liderlik. *Tablet Kitabevi, Konya*.

Sisman, M. (2002). Örgütler ve kültürler. *Ankara: PegemA Yayincilik*.

Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative science quarterly*, 339-358.

Sökmen, A., & Tarakçıoğlu, S. (2011). *Mesleki etik*. Detay Yayıncılık.

South, S. J. (2001). Time-dependent effects of wives' employment on marital dissolution. *American Sociological Review*, *66*(2), 226.

Szalkowski, A., & Jankowicz, D. (1999). The ethical problems of personnel management in a transition economy. *International Journal of Social Economics*.

Storey, J. (Ed.). (2007). *Human resource management: A critical text*. Cengage Learning EMEA.

Tepe, H. (2009). *Etik ve Metaetik*. 2.Baskı. Ankara: Türkiye Felsefe Kurumu Yayınları.

Tierney, E. P. (1997). İş Ahlakı,(Çev. Günhan Günay). *İstanbul: Rota Yayınları*.

Till, R. E., & Karren, R. (2011). Organizational justice perceptions and pay level satisfaction. *Journal of Managerial Psychology*, *26*(1), 42-57.

Trevino, L. K., & Nelson, K. A. (2016). *Managing business ethics: Straight talk about how to do it right*. John Wiley & Sons.

Valentine, S. (2010). Human resource management, ethical context, and personnel consequences: A commentary essay. *Journal of Business Research*, *63*(8), 908-910.

Van Vuuren, L. J., & Eiselen, R. J. (2006). A role for HR in corporate ethics? South African practitioners' perspectives. *SA Journal of Human Resource Management*, *4*(3), 22-28.

Velasquez, M. G., & Velazquez, M. (2002). *Business ethics: Concepts and cases* (Vol. 111). Upper Saddle River, NJ: Prentice Hall.

Weaver, G. R. (2004). Ethics and employees: Making the connection. *Academy of Management Perspectives*, *18*(2), 121-125.

Weaver, G. R., & Trevino, L. K. (2001). The role of human resources in ethics/compliance management: A fairness perspective. *Human Resource Management Review*, *11*(1-2), 113-134.

Weiss, J. W. (1994). *Business ethics: A managerial, stakeholder approach* (No. s 287). Belmont, California: Wadsworth Publishing Company.

Winstanley, D., & Stuart-Smith, K. (1996). Policing performance: the ethics of performance management. *Personnel Review*, *25*(6), 66-84.

Woodall, J., & Douglas, D. (2000). Winning hearts and minds: ethical issues in human resource development. *Ethical issues in contemporary human resource management*, 116-136.

Wooten, K. C. (2001). Ethical dilemmas in human resource management: An application of a multidimensional framework, a unifying taxonomy, and applicable codes. *Human Resource Management Review*, *11*(1-2), 159-175.

Wright, S. (Ed.). (2004). *The anthropology of organizations*. Routledge.

Yeloğlu, H. O. (2004). İşe Eleman Seçme Yöntemlerinde Örgütsel Farkliliklar Ve Özgünlük Tartişmalari. *Ege Akademik Bakış Dergisi*, *4*(1), 115-124.

Yeniçeri, Ö. (Ed.). (2006). *Yönetimde yeni yaklaşımlar*. IQ Kültür Sanat Yayıncılık.

**CHAPTER**

**27**

# THE NATION-BUILDING PROBLEM OF PAKISTAN AND THE "KASHMIR" ISSUE, WHICH CREATED A CRISIS WITH INDIA

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### a) The Independence Phase of Pakistan and its Significance Afterwards

Pakistan, as an important region of the Indian Peninsula in Southeastern Asia, was separated from India and declared its independence in 1947. This country, which is neighbors with Afghanistan and People's Republic of China in the North, with India in the East, with Iran n the West and with the Arabian Sea in the South, was situated within the political influence zone of England before its declaration of independence.

Pakistan took part in the Western Block in the post-independence era against the Soviet threat and against the menace of communism. USSR's deployment of its military in order to protect the regime in Afghanistan strengthened the strategic position of Pakistan and increased the regional role Pakistan assumed. Pakistan has been a crucial defense line against the westward advance of the Soviets in the long run. The historical hostility with India and the problems with Afghanistan provided important political functions to this country. On the other hand, both countries, gaining access to nuclear weapons after the major conflicts, the Kashmir Conflict and the subsequent wars turned the region to a possible theater for a nuclear conflict as well.

The Soviet military presence had to withdraw from Afghanistan as the result of the pressure from the world, due to the heavy military casualties and various other reasons. After this, Afghanistan, along with its toppled government, entered an era of a civil war that has raged up to this day and brought the occupation of the foreign military troops. Furthermore, Pakistan has lost its strategic value, which was in the eyes of the West in the past, due to the collapse of the Soviet Union and due to the aforementioned reasons. The financial support and the supply of weapons and arms that the countries in the Western Block such as the USA, other western nations and Saudi Arabia had offered ceased. Pakistan, which has been having a hard time to express its strategic and geopolitical importance during the post-cold war era, also drew critical reaction from the West due to becoming a nuclear power.

It is frequently asserted that, with this historical establishment and formation process, Pakistan is an artificial state. When the organic roots of the Pakistani State are taken into account, it may also be said that this kind of claim is valid and applicable to the extent that it is also valid and applicable for all third world countries. On the other hand, Pakistan, due to having legitimacy at least in terms of religion and due to being a country, shaped by the choices of the Muslim population of the Indian continent, has a historical legitimacy in this regard, which many third world countries

lack. However, none of this changes the fact that Pakistan has failed to solve its basic identity issue so far. Today, the identity of Pakistan is mainly shaped by its hostility towards India, rather than having a positive sense of belonging. While the state predominantly explains its raison d'être and legitimacy over the opposition against India, this viewpoint determines the internal policy in addition to the perception of the foreign policy and security as well. Accordingly, no consensus has formed on what the definition of the religion-state relations and the social and political definition of the religion are in addition to the questions of what the national Pakistani identity is within the complex ethnic structure of the country and what the relations between such ethnic identities will be. This causes the sectarian or ethnic conflicts to threaten the political stability in Pakistan and makes Pakistan a country that is very hard to govern. (Çevik, 2013, P.18-19)

Pakistan, under these circumstances, made an effort to improve its traditional relations with the People's Republic of China in order to strengthen its position and to re-establish its regional significance and began underlining that it is in a strategic position to be able to reach to the newly independent Middle Asian States. Furthermore, Pakistan attempted to procure economic support and investment from the Arab Emirates in the Persian Gulf by improving its economic and political ties with those states.

### b) Ethnic Groups in Pakistan and the Long-Standing Issues

Pakistan, which boasts a considerably high population figure, also features ethnical and religious diversity. The religion of Islam brought various tribes and bloodlines together and led to the establishment of the State of Pakistan. Pakistani people are comprised of 4 main lineages; Punjabi, who live in the Punjab State, Sindhi, who line in the Sindhi Province, Balochi, who live in Baloch Province and Pashtuns, who live in Northwestern Province. Punjabi makes up the most important ethnic group in the country and they come from three ethnic lines;

1. Arians: They are Caucasian and live in Iran, India and Europe.

2. Rajputs: A line of warrior people, who generally live through their lives as soldiers.

3. Cata (Jats) Usually deal with agricultural activities. There are some people in them, who are from the Hindu sect.

Sindhi is also divided into several ethnic groups amongst themselves. Balochis reside in the Provinces of Balochistan and Sindh. The Eastern Balochi people are comprised of 7 tribes while the Western Balochs are

comprised of 9 tribes. A part of Balochs is called Barahuvi and this part makes up around %25 of the total Baloch population.

Pashtu is an important tribe, who lives in the North of Pakistan and South of Afghanistan. Pashtu, which features very strong tribal bonds, is comprised of Afridis, Mhsuds and Waziris. Pashtu, who live in Afghanistan, is comprised of the Devrani and Ğelcai tribes.

In XI. Century, a significant development unfolded between the Pakistan of today and Afghanistan. The regions, which make up Afghanistan and Pakistan today, were divided up between Safavids, who ruled in Iran and Timurs, who reigned in India. The states of Herat, Nimruz, Kandahar, Hazarajat, Baghreyz and Belh, which are governed by the State of Afghanistan today, belonged to the Safavi Empire, while the states of Pişaver, Punjab and Sindh, which currently situated within the borders of Pakistan, were under the reign of Indian Timur Dynasty.

Those dates mark the era, in which the social movements that we can name as Pashtun Nationalism or the Pashtunistan Movement, which led to a grand scale social movement in the region that lasted up to this day, began. The Hoxhalhan rebellion that revolted against the Timur Empire and the Mahmud Ğelcai rebellion that took action against the Safavi Dynasty are the movements of Pashtun Nationalism. In 1747, the Pashtun Nationalism produced Ahmed Sah Abdali. The rule of Pashtuns in this region continued up to this day, despite being interrupted from time to time.

After the British set foot on the region and consolidated their hegemony, the British Government tried to set up a state in Pakistan that is in line with its own interests for the purpose of preventing the Russian influence from the North. After long frictions and conflicts, the Treaty of Durand was signed between the Afghan Government and the British Government of India. Sir Mortimer Durand, who was the Secretary-General of the British Ministry of Foreign Affairs at that time, drew the Durand borderline, which constitutes the border between Pakistan and India today. This line, which crosses right in the middle of Pashtuni regions, is also disputed today and continues to exist as a part of the imperialist practices of the English Imperial Era.

The nature of the border and the ethnic structures, briefly summarized above, has served to the emergence of the national integrity and the Pakistani identity of the State of Pakistan. On the other hand, these elements also constitute the basis of the most important issues and handicaps, seen regarding the formation of the national consciousness and conscience and for ensuring the national unity and solidarity. Pakistan, since the day of its establishment, has witnessed the power plays between Punjabi, Sindhi,

Belochi and Pashtuni tribes. The aforementioned ethnical groups have never trusted each other throughout the history and each one of the group has always attempted to oust the other one from the national political stage and has tried to eliminate the other one. Consequently, Pakistan has become a theater of a constant competition and conflict between the indicated ethnic structures. Furthermore, the Kashmir Issue also led to an important separation anxiety after Southern Pakistan separated from the main core assuming the name Bangladesh. Likewise, separation of Bangladesh from Pakistan instilled a fear in Pakistani People that Pashtuns may also be separated from the country for the goal and purpose of creating a Great Pashtunistan.

Frankly, this Pashtunistan problem has a great importance for both Pakistan and Afghanistan. Governments in Islamabad and Kabul have constantly been competing for the control for this region. None of the rulers in Afghanistan, with the exception of few, consented to give this region to Pakistan. Those who provided their consent were under British pressure when issuing such a decree. One of the most radical names, who advocated that Pashtunistan is an integral part of Afghanistan, is Davud Khan, the ruler of Afghanistan. Davud Khan, in a speech that he gave in Radio Kabul in 1953, talked about liberating Pashtunistan and stated that he would resort to military action for this goal if necessary. (Documents of Iran Ministry of Foreign Affairs, Kabul Office, Docket: 76, Nr. 73 (1959) and Docket: 65 Nr. 2945, 1961)

O much so that according to this approach that lasted until today, every Afghani Political leader, who engages in deliberation with Pakistan regarding Pashtunistan is labeled as a traitor. If truth to be told, the Durand Borderline passes right through the regions, where the Pashtuni Tribes live. Pashtuns, who live in the East and West of the line, have never accepted this kind of separation. Half of 60 tribes, which make up Pashtuns, live in Pakistan while the rest live in Afghanistan.

Today, 20 million Pashtuns make up about 20% of the total population of Pakistan, which is 180 million. However, when the geographical characteristics and the unstable situation in Afghanistan are taken into account, it becomes clear that such a ratio is an important figure. When the political equations in the country are considered, the fact that the ulama of the madrasa, which operates especially in the Northern and Central Pakistan, providing religious education, and the religious authorities are of Pashtuni origin, is a crucial indicator of the sensitive nature of the matter. However, if the subject is Pakistan, the Pashtun's identity seek is not the only element that threatens the integrity of the country. We need to count in the Sindh, Punjabi and Belouch in addition to the millions of Muslim

Indians called Muhajir, who immigrated to the country from India after the independence.

The most spoken languages in the country are Punjabi (58%), Sindh (12%), Pashtuni (8%), Urdu (8%) and Belouch (3%) respectively. According to the Constitution of 1973, the Urdu language was declared as the official language of the country. Pakistan Institute for Political and International Studies (IPIS) Ministry of Foreign Affairs Publications / Tehran – 2010 Page:13) This diversity in the language is the result of the affiliation of the populace to various ethnic groups and is due to the fact that the tribal nature still exists especially in rural areas. In the states in the Northeastern region of the country, where the tribes reign, the tribal rules and structure have continued to hold out in an apparent manner up to this day. So much so that even during the rule of military governments, the traditional rules and orders of the tribes have prevailed in the Northern and Southern Waziristan Provinces instead of the Civil and Penal Laws of Pakistan. The words of the tribal leaders and local religious figures carried more weight compared to the heads of Local Military and Governmental Officers. Today, this structure was strengthened even more today and the region has become the area of dominance for Al-Qaeda and Pakistani Taliban. (http://www.bilgesam. org/tr/index.php?option=com_content&view=article&id=497:11-eyluel-sonras-el-kaide&catid=122:analizler-guvenlik&Itemid=147)

### c) The Place and Significance of the Islam in Pakistan

98% of Pakistan's population is Muslim and the majority of Muslims are affiliated with the Hanafi Sect. %22-25 of the Muslims are Shi'a and a small percentage is associated with Shafii sect. furthermore, some belief groups such as Sağdat, Mogul, Petan, Haxer, İsmailiye, Nezari, Bahaî, Ahmediye and Gadiyani are also present amongst the Muslims.

It is apparent that the main idea that constitutes the State of Pakistan is Islam. The Constitution of 1973 describes the country as the Islamic Republic. As a matter of fact, the founder of the country, Muhammad Ali Jinnah, on the independence day of the Country talked about Pakistan as a country, where the Islamic justice and the supreme values would prevail. According to the constitution, it is mandatory for the President and the Prime Minister to be Muslim. The presence of the sects of various belief groups frequently leads to attrition, clashes and even to bloody attacks and inter-sectarian wars. For example, martial law was declared in 1953, when the inter-sectarian wars escalated.

The Military Regime of Zia –Ul Haq, which stayed in power between 1977 and 88, became an era, in which the Islamic groups expanded their area of activity once again and took up important positions amongst

the government and military cadre. Zia –Ul Haq was forming Islamic institutions within the country, was working hard to islamicise the Pakistani Society while substantially supporting the scattered and dissenting Islamic groups in Afghanistan in the foreign policy area. Although the relations of Pakistan with Afghani Mujahidin and Taliban were the USA backed policies, keeping the separatist movements that may be initiated by Pashtuns around the uncontrollable areas in the Afghani border in check was another goal. Therefore, Pakistan became the ideological training and logistics base of the Taliban Movement.

However, Pakistani policies that support the Islamic groups in Afghanistan also caused several Islamic Groups to gain momentum in the Pakistani homeland. Official parties like the Cemaat-i Islam-i (CI) gained power in 90's. Lashkar-e-Taiba (The Army of Saints) was an Islamic military organization that was founded during the Soviet-Afghan War in a similar manner with Taliban. LT became one of the most effective militia groups in the South Asia with the active support of the Pakistani Army. The organization is held responsible for an attacked, commenced to the Indian Parliament in December 2001. The ground for the Coup that the General Pervez Musharraf staged was that the politicians failed to determine the role of the religion. According to Musharraf; the militant Islam, which was getting stronger was the main source of the distrust. (Aras, 2008)

In 1984, The Prime Minister, General Ziya-ül Hak banned the religious order of Ahmeddiye. Today, the actions of Taliban especially fueled the sectarian conflicts. Hardly a day passes without an attack on the mosques, shrines and other religious venues in metropolitan cities in Pakistan. Taliban primarily targets the mosques that belong to Shi'a minority. As the result of their bloody attacks, thousands of innocent Pakistani died or dying. Such attacks of Taliban led to instability and exposed the country against all kinds of provocative actions. According to some terror experts, the intelligence agencies of USA, Saudi Arabia and Israel as well as other western agencies incite the Shi'a – Sunni conflict in Pakistan. Taliban is used as a puppet contractor as this organization is ensured to attack on the sacred places of Shi'a sect therefore, by instigating ethnic conflicts in the country, it is aimed to sabotage the relations between Pakistan and its neighbor, Iran.

Despite the provocations like that and the fatal attacks of Taliban, Sunni and Shi'a religious leaders call for reason and quiescence, therefore, trying to prevent sectarian conflicts. In Pakistan, there are religious centers that include the whole Indian Peninsula into its area of influence. Such centers are usually comprised of an extensive Islamic-Ottoman social complex like the ones in Ottoman Empire. Those complexes include praying, education

units as well as housing, dining halls and even health units for the religious students. Many of them feature large and important libraries and those libraries often house rare handwriting pieces.

*Sunni Religious Centers;*

1.  Esrafayah and Neymyh Mosques, located in Lahore,

2.  Madrasa of Hexrel and Darel Ilum (In this educational complex, which was founded in 1952 by Şebir Ahmed Osmani, education up to the office of Muftu is provided) that are situated in Lahore.

3.  Darel İlum Hakkaniye, operated in Meltan, (This complex also publishes an influential journal called El-Belag)

4.  Esrafayah Mosque in Derukurehatek,

5.  Islamiye Mosque in Pishaver,

6.  The Center of Islamic Rules and Instructions, operated in Bahavepur, Madrasa of Mezheril Ilum, (This educational complex, founded in 1885, is widely renowned) Medrese-i El Nebat and Camiyeyi Haxubiye.

7.  Daerel İlum Emcediye, situated in Karachi.

Furthermore, there are various religious centers that belong to Shi'a belief in many cities;

1.  A large-scale religious complex called El Muntezir in the city of Lahore,

2.  The Mosque of Ehlibeyt in Islamabad,

3.  Medrese-i Mümin and Medrese-i Ayetullah Hekim in Rawalpindi,

4.  Madrasa-i Meşareilum in Hyderabad,

5.  The Madrasa of Imam Saddık in Kuveyte.

### d) The Phase that Pakistan Fails to Pass Beyond in Its Nationalization Process

The country is comprised of 4 provinces and each province is independent in terms of its internal affairs while being contingent upon the central government in defense and foreign affairs. The power of legislation is made of two Parliaments, being the national assembly and the Senate. Each province has its own local parliament. The President is the head of the

legislative body and the Prime Minister is elected by the Party, which holds the majority in the parliament. When the history of Pakistan is dissected, it is seen that the military is the most important pillar of the political authority. The country was ruled by the military regimes for long years. Although the political system of the country is referred to as the parliamentary system according to the constitution, the power within the country is divided by the Joint Chief Of Staff, President and the Prime Minister.

The first Prime Minister of Pakistan, Liaget Alihan was killed as the result of an assassination in October 1951. The country has experienced political turmoil starting from that date, which would continue to this very day. For example, the activities of the political parties were banned from 1958 to 1962 and again from 1979 to 1985.  (Shaikh, 1992, P.187-190). The practices of the central government drew criticism from the local population and thus their parliaments from time to time. Various ethnic groups opposed the national parliament or outright revolted against it by claiming that the laws and practices, which protect the interests and benefits of another group, came to prominence. For example, Sindh and Punjabi revolted on the grounds that, with the implementation of a new constitution in 1956, the authorities and obligations of the President and Prime Minister were not completely and clearly outlined. The aforementioned groups conducted various attacks that have lasted until 1958 including the ones that targeted the Deputy Speaker of the Parliament. (Lang, 2003 P:112)

Despite the coups and military interventions, Pakistan is ruled with a parliamentary system and the political parties, which are one of the most important elements of the political and democratic system, have been operating in this country since its independence. One of the most obvious examples of the problems that Pakistan experienced during its nationalization process and the failure to create a Pakistani identity is the political parties in Pakistan. In other words, when the target audiences of the political parties, their members, ideologies, strategies and statements are analyzed, we see that most of them appeal to a certain ethnic or religious group. Some of the parties feature words that are associated with an Islamic or other religious thoughts in their names or they feature names of a regional ethnic group. The area of activity of parties of this nature generally does not cover or include the entirety of the country, covering only an area, where a certain ethnic or religious group, sect or populace lives. I shall try to demonstrate this divided picture by listing some of the most important parties along with their names and area of activities in addition to indicating their center of operation and to which populace they appeal to.

1. Pakistan People's Party, PPP: This party was founded in 1967 by the Prime Minister, Zulfikar Ali Bhutto, who would be executed in the future, as a moderate socialist party. Its aim is to bring a federal structure to Pakistan.

2. Pakistan Muslim League, PML: Founded by 1906 by the founding father of Pakistan, Mehmet Ali Jinnah. It is the oldest political party in the country.

3. Jamiat-i Ulema-i Pakistan, JUP: Founded in 1948. Its leader is Mevlana Shah Ahmad Noorani and the party prioritizes Sunni traditions.

4. Muhajir Qaumi Mahaz, Movement MQM: This party was founded in 1978 by the people immigrated to Pakistan from India. The goal of this party is being accepted as the fifth element of the Muhajirs in addition to Baloch, Sindh, Punjabi and Pashtuni. The partisans of this party, who are comprised of two groups; the Haqiqi and El Taaf Huseyin, mainly live in Sindh Province.

5. Pakistan Cemaat-i Islam-i: This party, founded in 1945, is a right-wing establishment with Islamic and traditionalist nature. This party has an ideology, similar to one, adopted by the Muslim Brotherhood in Egypt.

6. Jamiat-i Ulema-i İslam, JUI: This party, which is close to Wahabi ideas from Hambali Sect, was founded by Şübeir Ahmet Osmanî in 1945.

7. National Awami Party, NAP: This party, which was founded in 1968 and which is dominated by Pashtu populace, features leftist ideas. Its area of activity is Northern Regions.

8. Sipah-i Sahabah-i Pakistan, SSP: This party has adopted the Wahabi ideological system.

9. Tehrik Nifaz-i Fiqah-i Jafariya, TNFJ: This party, founded in 1979, adopts Shi'a sect. It especially opposed the policy, rendered by the President Ziya-ül Hak, which suggests arranging the Islamic Jurisprudence in line with the Sunni sect.

10. National Democratic Party, NDP: This party was founded in 1975 and features leftist ideas. The party has adopted a pro-Chinese left-wing ideology.

11. Progressive People's Party, PPP: Founded by 1978 by Molana Koser Niyazi by being separated from the People's Party.

12. All Pakistan Jammu and Kashmir Conference: This party, founded by Glan Abbas in 1948, prioritizes the Kashmir Issue.

13. Pakistan National Party: This party, founded by Mir Rous Bxşbezencu in 1979, follows a left-wing line and represents Belouchis. Furthermore, this party has a pro-Indian stance.

14. Sind National Front: This party was founded by the uncle of Zulfikar Ali Buttu, Mumtaz Ali Bhutto in 1989. It has a stance towards a confederation of Pashtun, Baloch people and Sindh.

15. National People's Party, NPP: Founded by Ğulam Mustafa Cağtuğbi in Karachi in 1986. It has a right wing stance.

16. Tehrik-i Istiqlal: Founded in 1968 with a liberal approach.

17. Balochistan National Alliance: The leader of this party, which operates in line with Balochistan and Baloch people axis, is Nevvap Muhammed Ekber Bugeti and the headquarters of the party is located in Kuwait.

18. The National Democratic Alliance, NDA: This party was founded by Ğulam Mustafa Kırvemolana Koğuser Niyazi in 1992.

19. Balochistan National Movement: The leader of this party, which is known to be in line with Baloch and Balochistan, is Abdulheyi Belouch and it is headquartered in Kuwait.

20. Islamic Ahle Hadith Party: founded in 1970. While known to be in line with Shia's, Mevlana Muiyittin Lekuy, who is a member of the National Parliament is a high-ranking official of the party.

21. Pakistan National Democratic Party, NDP: began its life in 1969 with the claim to protect democratic and Islamic values.

22. Sawaad-i Azam Party: The leader of this party, which is dominated by Sunni and Hannifin schools of thought, is Molana Azam İsfendiyar. This party, which is active in Karachi, sometimes follows anti-Shi'a policies.

23. National Wealth Party: The members of this party, which was founded by the retired general, Tejmel Hussain in 1997, are mostly comprised of officers and non-commissioned officers. This party operates in Punjab Province.

24. People's Guidance Party: The ideology of this party, founded by General Eslembek in 1997, was announced as reflecting the ideas of the military branch.

As ıt can be seen, the most of the aforementioned parties carry an Islamic identity in their names while some prioritize the sectarian identity and some prioritize their ethnic identity as well. (Eg. Baloch). Some of them highlight the interest of a certain group of profession (or example soldiers). This situation demonstrates that the current bunch of political parties do not function properly in terms of the creation and consolidation of a national consciousness and national identity.

### e) The Kashmir Issue in the Pakistan-India Relations

The fact that Pakistan is a nuclear force should not be glossed over. Perhaps, apart from its Islamic identity, the most crucial element that unites the country is the military success that Pakistan had (or may have in the future) against India as well as its nuclear power-related achievements. Everybody, who closely follows Pakistan, would know how much this country takes heed of its nuclear achievements and the distance Pakistan has covered in this regard. The Kashmir problem, due to the fact that it has not been resolved for a long time, has become a chronic problem, a static conflict. That means that, although it is currently in suspension, it may turn into a hot conflict in the future. This conflict led to two wars between the 2 countries in 1948-1956 and 1971. When the geographical size of India, its larger population, democratic and political structure its abundant natural resources its advanced industry and economy, its conventional weapon arsenal and the similar parameters are taken into account, it may be asserted that the emergence of Pakistan as a nuclear power against India may result from a rational reality.

No other issue has created more friction between Pakistan and India than the Kashmir Issue. According to EU Security Strategy Document, the Kashmir issue continues to be the most important dispute between two nations since India was split into two entities as India and Pakistan. The two countries fought three wars (1947-48, 1965 and 1971) because of Kashmir Issue. Furthermore, India and Pakistan were on the brink of war in 1998 and 2002 but the actual armed conflict was averted thanks to the international efforts. Because of the fact that Pakistan, India and China may pose as nuclear threats, important powers follow a stalling policy in relation to Kashmir Issue.

Wars were waged and the negotiations yielded no results so far, therefore, the issue has existed for sixty years. Two third of the Kashmir region is under the control of India while Pakistan controls one-third of

the region. In 1963, Pakistan gave out a small portion from the area under its dominion. (Faruqui, 2001). Therefore, the Chinese government got a chance to connect the Tibet and Sing Yang Provinces with each other via highway network.

While New Delhi claims that the Kashmir Region shall be developed and progress within India under a secular order within the nationalization process, Pakistan underlines that the majority of the population of this region is Muslim and demands that this should be given to Pakistan. As the result of a census, conducted by the British in 1941, %77 of the population turned out to be Muslim while %20 was Hindu. According to the results of a census, conducted n the Kashmir Valley under Indian control, today, Muslims make up %93 of the population while Indians are %3 of the population. Pakistan brings the Kashmir Issue to the international arena, stating that a referendum should be made under the supervision of the international organizations for the fate of the future of the region.

India unwillingly accepted the referendum in response to such a demand of Pakistan. Then, the United Nations Indo-Pakistan Commission agreed upon proceeding with the referendum with its decrees, dated 13th of August 1948 and 5th of January 1949. However, the conditions have not been suitable for making this referendum so far. India, by asserting the Bill of Maharaja even before the issue is presented before the UN, argues that the Kashmir Province belongs to them. According to India, for the referendum to be made, the Pakistani military presence from the regions under the "Pakistani Occupation" should be withdrawn. Furthermore, India asserts a decision, taken by a house of representatives, comprised of the people of Kashmir, on 17th of November 1956 regarding the unification of this province with India when claiming rights over Kashmir. Pakistan on the other hand rejects such decisions.

After the War of 1971, occurred between the two countries, the Simla cease-fire zone was established in 1972 with the initiative of the UN. When both countries agreed on this line, a crucial step towards the initiation of a normalization process was taken. As a matter of fact, such a picture is the result of the military defeat that Pakistan suffered from the Hands of India in the War of 1971 and the result of the establishment of Indian military superiority. Pakistan was only able to deal with the Kashmir Issue with rather an oral approach.

In 1984, the issue of Siachen, which is located in the mountainous regions of Kashmir, emerged. Since the borderlines cannot be determined by tangible objects in this region, which is covered with very large glaciers, the issue of controlling this area sparked disputes. The mountain climbers,

who wanted to climb the glaciers, obtained their permits for accessing the area from Pakistani Authorities for years. Furthermore, the maps in the atlases that were published both inside and outside the country showed this area as a part of Pakistan. This area was considered under Pakistani control due to the fact that India never objected to any of the aforementioned matters. In addition to this, the expressions in the texts of 1949 Karachi Agreement and 1963 Sino-Pakistan Border Agreement, further strengthened the claim that this area belongs to Pakistan. During the period between 1947 and 1987, India established military units within the region. However, the most crucial development in this regard is the deployment of a military battalion to the ice-covered mountainous Karakorum region in 1984. Since that date, disputes have been going on in the region regarding the control of the area. (Baxter, 1984).

When a serious disturbance occurred in the Indian controlled part of the Kashmir in 1989 due to a religious dispute, Pakistan backed the Muslim rebels and provided financial support for them as a retaliation of the insults that Pakistan was subjected until 1971. Russia backed India while China supported Pakistan during the skirmishes. Pakistani supported fueled the incidents. Upon organizations such as the Army of Tayyib and Ceysi Muhammad (The army of Muhammad) entered into the subject, the incidents were evolved into religious-based battles.

Kashmir was the stage of clashes between the aforementioned organizations and the Indian Security Forces during 1990's. Indian security forces, though not decisively, handed defeat to those organizations. (Yeager, 1985) Despite the Simla Treaty, which ensured a ceasefire between the nations, disputes and the Kashmir centered conflicts carry on without losing traction. While Pakistan is having difficulties of the fact that its demands for exercising a referendum are constantly rejected by India, India considers this issue a very sensitive matter in the context of national security. While the disputes rage on, new developments brought to issue to new grounds. And the nuclear activity in the regions comes to the forefront in this regard.

In 1999, a group of Pakistani men occupied the military facilities in the mountainous Siachen Glacier Region with Afghani and Kashmiri armed units. Indian soldiers usually vacate those installations, which they use throughout the summer, in the wintertime. Indian Army and Intelligence being completely blindsided against such a move stunned the nation. Furthermore, Pakistani militants failed to take the installations back and even the Indian units downed three Indian military planes. Then India increased its diplomatic initiatives and began applying international pressure on Pakistan for vacating the complex.

As the result of the international pressure, Pakistani forces were forced to abandon this region. However, the units also suffered heavy losses during the withdrawal process. In the end, India advertised regaining control of the region as a crucial success. (Yousaf, Adkin; 1992). Indeed, this incident agitated the world due to the fact that it occurred in a period, in which both countries gained access to nuclear arsenals and subsequently, the great powers attempted to avoid escalation of the situation to a full armed conflict between the two countries. Another crisis between those countries occurred on 13th of December 2001. At that date, the armed militants of the Army of Tayyib and Ceysi Muhammad (The army of Muhammad) staged an attack on the Indian Parliament in the capital of New Delhi when the representatives were in session.

India responded to these attacks in a harsh way and declared a state of emergency across its units, deployed around the borderline. Both countries kept their military assets ready for war until the beginning of 2002. With international initiatives and after the USA classified the Army of Tayyib and Ceysi Muhammad (The army of Muhammad) as terrorist organizations, the hostile environment between India and Pakistan was lightened to a degree.

When the situation was subsided, the talks between the two countries restarted and a consensus was reached on the following topics;

1. Ensuring the ceasefire across all fronts,

2. Establishing checkpoints in an effective manner,

3. Keeping the access roads between the capitals of Kasmir Region (Srinagar, the Summer Capital under India (Jammu, the winter capital) and Muzaffarabad, the capital city under Pakistani control) open and organize bus services,

4. Allowing the members of the political parties that operate in both regions to enter Pakistan.

However, the land dispute, which was the real origin and source of the problem still continued to exist within a deadlock situation. Pervez Musharraf, who ruled Pakistan during this period, supported the Muslims located in the India-controlled region of Kashmir despite its reconciliatory attitude. (Farzinnia, 2009, P.164) At this phase, Indian Prime Minister Manmohan Singh stated that "the Independence Conference", which includes some of the most important Muslim Organizations of Kashmir, was ready to conduct negotiations with AHPC regarding the autonomy and political representation. (Farzinnia, 2009, P.165)

Starting from 2002, the infiltrations to Indian territories from Pakistani controlled Kashmir Region gradually decreased. As the result of an election, which may be considered as fair, in the Indian controlled region in 2002, a local government was formed. Despite all of these, occasional uprisings and revolts against the Indian government occurred from time to time as well. India, for the security and stability of the region, utilizes a militia force of 100.000 men in addition to its regular army of 250.000 men in the area. The claims, asserting that the bombings in the capital city of New Delhi in November 2005 and the bomb attacks on the Bombay, the most important commercial and political center of India, in the November of 2008 were carried out by Pakistan and by the Kashmiri militants, who have been backed by Pakistan, deeply strained the relations between those two nations.

### Conclusion

Pakistan is made of a multi-partite and religious structure. In Pakistan, which was founded in 1947, people lack a common cultural heritage and a historical background, which would otherwise cement the national unity and solidarity. Therefore, this country has important problems regarding the sense of unity and solidarity and adopting a Pakistani Supra-Identity by being free of religious and ethnic identity. Because of the economic problems, underdevelopment, low literacy rates, lack of an established democratic political culture, the scarcity of democratic establishments, strong tribal structure, activities of organizations such as Taliban and El-Qaeda and various other reasons, the affiliations to the tribes and clans are in the forefront rather than the Pakistani identity in the country. An ordinary Pakistani citizen shall never be a free citizen as long as he/she does not adopt the Pakistani Supra-Identity before the identities based on sect, ethnic background or professional status. As long as the identity of being a Pakistani is held above and beyond all ethnic, religious, ideal etc. characteristics, the process of democratization and the political stabilization in the country seem difficult to attain.

Election of Asıf Ali Zerdari to the presidency and the subsequent assignment of Yusuf Rıza Gilani, who can be considered as moderate, to the office of prime minister, strengthened the belief that the relations between India and Pakistan shall recede from the war and that the issues will be solved on the negotiating table. Reza Gilani government, as a civil administration that came to power after years of military regimes, has taken steps, believing that the issues can be solved with negations.

Naturally, such an approach made some pressure groups including some of the extreme wings of the army, uneasy. Pakistani Joint Chief of

Staff Eşfak Pervez Kayani objected Zerdari's qualification of the Kashmiri combatants as terrorists. In October 2008 during the talks between the Prime Minister of India, Manmohan Singh and the President of Pakistan, Asıf Ali Zerdari in New York, it was announced that both countries would make an endeavor to normalize the relations. Subsequently, Pakistan, as a show of good faith, Pakistan released 101 Indian prisoners In Pakistan.

From that date forward, a window of mutual dialogue has been kept open between the two countries despite the fact that the tensions between India and Pakistan occasionally rise. In addition to the current issues between the two countries; USA's occupation of Afghanistan, NATO strikes on the civilian settlements, located especially in Waziristan, which is a region of clans in the Northern Pakistan, the struggles of China and other States in the region for power, the nuclear arms race between the two countries, and the improvement of the conventional armies, India's desire to be a regional power after its technological and military advancements and various other issues shall have deep effects on the Indian – Pakistani relations in the near future. We hope that the issues between India and Pakistan shall be dealt with within the scope of dialogue and the solutions shall be attained through diplomatic ways.

## Sources

Ahmed Aziz, Islamic Culture Clashes in India, Istanbul: İnsan Publishing House, 1995, All Parties Hurriyat Conference (APHC)

Arı, Tayyar, Global politics and South Asia, Istanbul: Alpha Printhouse, 2000

BAXTER, Caraing, Bangladesh: A New Nation in an Old Setting, (Colorado: Westview Press, 1984)

Çevik, Salim. «Past and Present of Pakistan», SETA, Edition 1, Ankara May 2013, P:18-19

DÜZGÜN, Şaban " Seyyid Ahmed Khan and His ıntellectual Modernism", Ankara, Akçağ Press, 1997.

FARUQUI, Ahmad, "Failure in Command Lessons from Pakistan's India Wars", Defense Analysis, 2001.

FARZINNIA, Ziba, "Asian Triangle: China, India &Pakistan", Institute for Political and International Studies (IPIS) Tehran, 2009, sf. 164-165

http://www.bilgesam.org/tr/index.php?option=com_content&view=article&id=497:11-eyluel-sonras-el-kaide&catid=122:analizler-guvenlik&Itemid=147

http://www.tasam.org/tr-TR/Icerik/756/pakistanin_geleceginde_kimler_rol_oynayacak (ARAS, Bülent, "Who will have a role in the future of Pakistan", TASAM, 10.01.2008 (Access date: 04.04.2017)

Documents of Iran Ministry of Foreign Affairs, Kabul Agency, Docket No: 79 File No: 73 (1959) and Docket No: 65 File No: 2945 (1961)

KÖSEBALABAN, Hasan T "Islam and Politics in Southeastern Asia" Istanbul: İlke Press, 1997.

LANG Robert. "The Land and People of PAKISTAN", Interpreted by. Davud Hatemi, Tehran: Scientific and Cultural Publishing House, 2003 Page 112

Pakistan Institute for Political and International Studies (IPIS) Ministry of Foreign Affairs Press Tehran / 2010 P: 13

SHAIKH, Farza, "Islam & Islamic Groups a Word wide reference guide", CIRCA, USA, 1992, P:187-190

Special on Crises in Asia, Studies on Asia, Bahmen Press, Tehran, 2004 Page: 44

YEAGER, Chuck, Autobiography, Bantam Book, 1985

YOUSAF, Muhammad; ADKIN, Mark, "The Bear Trap: Afghanistan's Untold Story", Jang Publishers, 1992.

Institute for Political and İnternational Studies (IPIS), Pakistan Country Study New Editions/9, Tehran/2000

ZİBAH, Fernanzinniya. "Pakistan", Ministry of Foreign Affairs Press, Tehran/1997

ADELİ, Zekiye. "Security Council of United Nations Organization & Afghanistan Developments, From İnvasion of Former Soviet to Afghanistan Until The First Presidential Election", Muhammet İbrahim Seriatia Afghanistani Publishing House, Tehran/2008

Commercial Study and Research Center, "Bangladesh", Country Overview Press, Tehran, 1987.

DYK, Cervan. "In Afghanistan", Interpreted by. Muhammet Ali Percat, İlham Press, Tehran/1982

DAFTARY, Mariam. "Sino- Indian Relations The Boundary Dispute and The Historical, Legal, Political and Military Issues", The Instituted for Political and International Studies (IPIS), Tehran/1990

EMAMİ, "Hessameddin. Afghanistan & The Rise of Taliban", Shab Publishing Company, Tehran/1999.