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CONTENTS

Chapter 1

THE EVALUATION OF BURNOUT AND BIG FIVE PERSONALITY TRAITS OF AIRLINES PILOTS

Hanifi SEVER.....1

Chapter 2

THE EFFECT OF FESTIVALS FROM ALTERNATIVE TOURISM TYPES IN DESTINATION IMAGE AND ITS CONTRIBUTION TO THE REGION: SAMPLE OF AYVALIK INTERNATIONAL DISABLED FESTIVAL

Yakup DİNÇ 17

Chapter 3

THE GASTRODIPLOMACY MODEL DEFINED WITHIN THE SCOPE OF INTERNATIONAL PUBLIC RELATIONS: THE CASE OF TURKEY

Fikret SONER & Gülseli Aygül ALAN.....41

Chapter 4

GLOBALIZATION AND REDEFINING INTELLECTUAL PROPERTY RIGHTS IN THE ENTERTAINMENT INDUSTRY WITH EMPHASIS ON CGI BASED DIGITAL ADVERTISING

Sinem GÜDÜM 75

Chapter 5

DIGITALIZATION OF IDENTITY IN THE CONTEXT OF GOFFMAN'S SELF-PRESENTATION THEORY

Birol AKGÜL & Beste TURŞUCUOĞLU.....87

Chapter 6

PROXY RELATIONS IN THE CONTEXT OF COMPETITION, COOPERATION AND CONFLICT: LEBANON

Burak ERCOŞKUN 113

Chapter 7

ANALYZING DETERMINANTS OF FINANCIAL DOLLARIZATION IN TURKEY

Barış SOYBİLGEN 141

Chapter 8

THE INFLUENCE OF SOCIO-CULTURAL AND IDOLS ON WOMEN'S CLOTHING (PANTS SAMPLE)

Gülşah POLAT 155

Chapter 9

THE IMPORTANCE OF INNOVATIVE PUBLIC MANAGEMENT AND WORKFORCE PLANNING

A. Turan ÖZTÜRK 177

Chapter 10

THE EFFECT OF TRANSFORMER LEADERSHIP ON LEADER-MEMBER INTERACTION, JOB SATISFACTION AND JOB PERFORMANCE

Bilgen Gaye YALPA 203

Chapter 11

ESSENTIAL VARIABLE IN SECURITY STUDIES: IDENTITY AND SECURITY OF IDENTITY

Burak BINARCI 225

Chapter 12

INTERPERSONAL CONFLICT AND PSYCHOLOGICAL - PHYSICAL STRESS SYMPTOMS OF TURKISH EMPLOYEES: THE MODERATING ROLES OF PSYCHOLOGICAL CAPITAL AND CONFLICT MANAGEMENT STYLES

Fatma Aslı AKÜN 243

Chapter 13

THE EFFECT OF COVID-19 PANDEMIC ON THE INCOME OF BORSA ISTANBUL TOURISM SECTOR

S. Öznur SAKINÇ 275

Chapter 14

DOES RISK MANAGEMENT PAY OFF? IMPROVING PORTFOLIO RETURNS IN BORSA ISTANBUL VIA TAIL HEDGING USING OPTIONS

Cenk C. KARAHAN & Yusuf GÜNEŞ 297

Chapter 15

SPHERICAL FUZZY TOPSIS METHOD AND ITS APPLICATION ON GROUP DECISION MAKING IN A RENEWABLE ENERGY PROBLEM

Aygülen KAYAHAN KARAKUL 313

Chapter 16

CREATING A STRONG BUSINESS BUILDING A BETTER WORLD: CORPORATE SOCIAL RESPONSIBILITY IN TURKEY

Esna Betül BUĞDAY.....331

Chapter 17

PREDICTORS OF UTILIZATION OF DENTAL CARE SERVICES AND COST BARRIERS TO DENTAL CARE

Abdullah TİRGİL.....359

Chapter 18

INVESTIGATING THE VALIDITY OF POLLUTION HAVEN HYPOTHESIS FOR TURKEY FOR THE ERA OF 1970-2016

Murat Can GENC & Ayca SARIALIOGLU HAYALI &

Gozde YILMAZ.....377

Chapter 19

ARGUMENT FROM IGNORANCE FOR EXTERNAL WORLD SKEPTICISM

Tufan KIYMAZ 397

Chapter 20

TURKISH SERVICES EXPORTERS ASSOCIATION SERVICE PERIOD YEARS INBETWEEN 2016-2019: AN EVALUATION OF CARGO TRANSPORT

Celil DURDAĞ & Gül Esin DELİPINAR 411

Chapter 21

THE KEY FACTOR FOR ORGANIZATIONS: HAPPINESS FOR HAPPINESS

Mehmet CIRANOĞLU 421

Chapter 22

MULTICULTURALISM IN AMY TAN'S THE JOY LUCK CLUB AND SANDRA CISNEROS' CARAMELO

Merve Nur TUĞTEKİN & Bülent Cercis TANRITANIR 437

Chapter 23

FORECASTING FOREIGN TRADE FLOW OF TURKEY IN TERMS OF GEOGRAPHICAL COUNTRY GROUPS WITH HIERARCHICAL TIME SERIES APPROACHES

M. Burak ERTURAN 453

Chapter 24

THE ROLE OF HOMELESS SHELTERS IN HOMELESS INDIVIDUALS' SOCIAL LIFE: ISTANBUL SAMPLE

Yasin AKYILDIZ & Fethi GÜNGÖR 471

Chapter 25

ADAPTATION TREND IN TURKISH TV SERIES: THE EXAMPLE OF "MASUMLAR APARTMANI"

Feridun NİZAM & Ferzan AYDAR 493

Chapter 26

BIBLIOMETRIC ANALYSIS OF ARTICLES PUBLISHED ON MANAGEMENT ACCOUNTING PUBLISHED BETWEEN THE YEARS 1980 TO 2020

Ibrahim Emre GOKTURK.....509

Chapter 27

USING SIX SIGMA AND CAPABILITY MATURITY MODEL INTEGRATION APPROACHES TOGETHER TO IMPROVE THE BUSINESS PERFORMANCE IN THE STRATEGIC LEVEL

Ayşenur ERDİL.....533

Chapter 1

THE EVALUATION OF BURNOUT AND BIG FIVE PERSONALITY TRAITS OF AIRLINES PILOTS

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Introduction

It can be stated that qualified human resources have an important place in global competition conditions (Wood and Menezes, 1998). In this century, where competition conditions have increased even more, it is seen that the need for skilled labor has increased. In order to ensure its organizational success, it is important to have employees who are away from conflict, not wasting resources, have high belonging and willing employees. The sense of justice within the institution is of great importance for the existence of the dedicated employees. Therefore, it is considered important to evaluate burnout and big five personality traits.

Aviation is a sector in which long and tiring flights are made, causing physiological and psychological fatigue due to pressure, vibration, noise and other dynamics of flight. The act of flight is not just a mechanical system flying, but a multidisciplinary set of basic sciences such as physics and mathematics. For this reason, it is not the right approach to view flight personnel as merely transporting individuals. In such a difficult and tiring work environment, employees feeling themselves both mentally and physically exhausted and under intense pressure may inevitably have negative consequences.

Burnout is a syndrome that can have devastating consequences in the aviation industry. Knowing the personality traits of employees working in the workplace can help predict the response of employees to burnout. In addition, revealing the causes of burnout of the individual is of great importance in determining the issues that cause problems in the workplace. It is also important to determine which personality trait the stress factors affect.

The aim of this study is to reveal the relationship between personality traits and burnout levels of personnel at different levels working in airlines.

Burnout

Burnout is a physical and mental syndrome caused by emotional depressions in everyday life and the environment. It is possible to associate this situation with factors such as middle age crisis / status and career.

Burnout can also be expressed as the inability to cope with stress during private and working life. However, according to some theorists, the real danger here is that individuals generally enter into a psychology compatible with the situation caused by burnout rather than struggling with burnout (Dolgun, 2018). Burnout blocks access to targeted goals and consumes collaboration resources. Over time, the level of burnout may increase and affect the individual's taste of life.

Burnout can be defined in four stages. These stages help us to understand the causes, birth and development of burnout in humans. The most important point to be expressed in this section is that burnout is a process that has intertwined stages and is a continuous process.

The first stage is the *Enthusiasm*. At this stage, hope and happiness prevail in the employee. With the increase in internal and physical energy, work commitment and satisfaction are at a high level. The individual is motivated and empowered to overcome all environmental negative factors. Therefore, a high level of compliance is achieved.

The second phase is the *Stagnation*. At this stage, person begins to become partially stagnant in his inner world and to feel physically inadequate. Happiness and future hopes are looming. The most important threshold value at this stage is the disturbance of difficulties similar to the obstacles that were overcome in the first stage. In the inner world of the individual, the perception that all life is covered by the workplace and work has started to emerge.

The third stage is the *Frustration*. At this level, people begin to believe that it is difficult to change the system and difficult working conditions. The relentless fatigue of pursuing the ideal within the habitual and hardened system has started. When past experiences come to mind, the person thinks that he is tiring himself in vain. The blocked individual has actually become inclined to display toxic behaviors.

The fourth and final stage is *Apathy*. It can be observed that employees who have reached the final stage of burnout, the ties of the workplace are almost completely broken and the belief of happiness has destroyed. Unhappiness and hopelessness about the future have peaked. The most important part is that the profession is seen as a simple job that earns money, not a professionalism (Fawzy et al. 1991, Jeanneau et al., 2000).

There are three main elements for managers to observe the burnout of their employees: Psychophysiological, psychological and behavioral symptoms. Fatigue and chronic pain and sleep problems affecting the overall health of the human body can be considered as psychophysiological disorders. In addition, concerns such as nervous and anger control, anxiety, feelings of worthlessness, and hopelessness may appear as psychological disorders. Behavioral symptoms, on the other hand, are more expressive. Irregularity in commute times, avoidance of community, illness, avoiding work by using excuses, making sarcastic and derogatory discourses towards their profession, finding their managers mediocre and incompetent, and displaying strict defensive and aggressive behaviors are serious signs of burnout (Constable and Russells, 1986).

There is a three-factor structure of burnout. These are emotional exhaustion, depersonalization and lack of personal accomplishment. Emotional exhaustion is the most obvious and observable form of burnout. Employees complain of psychophysiological ailments such as fatigue, fatigue, numbness, wear and tear. Depersonalization occurs when individuals who move away from their belonging to the workplace are careless towards the person or area served. The employee, who begins to be poisoned with cynical behavior, can gradually reach a stage where he can enjoy the damage to the organization or people he is in. lack of personal accomplishment is the feeling that the exhausted individual is no longer productively useful. Depersonalization has also started in the individual who feels that his personal success is decreasing. (Maslach et al., 2001).

In some previous studies, burnout situations for different occupational groups were examined. The most important common feature of these studies is that they are professional categories that communicate face to face.

There are many studies that examine teachers' burnout (Chang, 2009, Grayson and Alvares, 2008, Goodard et al., 2006, Skaalvik and Skaalvik, 2010). The common point of these studies has been the examination of teachers' self-efficacy, school environment, burnout and job satisfaction perceptions. In general, a significant relationship has been found between job satisfaction and burnout. Burnout weakens as job satisfaction increases. Another important result is the relationship between teachers' self-efficacy and burnout. It is meaningful that teachers with low self-efficacy also have low burnout levels.

One of the face-to-face service sectors is healthcare professionals. Studies on nurses directly involved in the treatment process are particularly important. According to the studies, inadequate workplace environment, low rating of care quality and unfair income system perception increase the level of burnout among nurses (Aiken et al., 2002, Poghosyan et al., 2010, Shimizutani, 2008).

There are various studies on pilots' burnout. In studies related to happiness, which is claimed to be the most important advantage against burnout (Lyubomirsky et al., 2005, Oswald et al., 2015), it is stated that happiness increases success by making people more productive. Demerouti et al. (2019) stated that burnout of pilots in simulator training reduces satisfaction and happiness in training. In the study, 1147 pilots was chosen as sample. According to the results of the study; as the level of burnout increases, the happiness of the pilots in their work decreases. The phenomenon of burnout requires observable and objective results rather

than just a relative concept like happiness. For this reason, it was observed in the study that burnout did not affect the simulation training directly, but reduced the pilots' performance.

In a study conducted with 248 regional airline pilots (Fanjoy et al., 2010), 32.6% of the sample was found to be candidates for high burnout. In another study in which 1424 pilots participated, it was stated that fatigue was a serious factor within the context of burnout. It reveals that there is a serious correlation between burnout and overwork, deprivation and unfair reward system (Co et al., 1999). In the study of Bennett (2003), pilots complained of stressful and tired work structure within the scope of burnout. Fanjoy and Harriman (2010) state in their study that pilots are in a significant level of cynicism and burnout. One of the important results in this study is that young pilots have higher burnout levels than senior pilots. However, it is not known whether the burnout in young pilots is related to more flight and fatigue than senior pilots, which cannot be determined here.

According to the results of a study (Mengenci, 2004) examining the accident incidents of Turkish Airlines companies in terms of the burnout dimension of the pilots, a positive relationship was found with stress, burnout, and this decrease job satisfaction. In addition, it is stated that there is a positive relationship between accidents and pilots' burnout syndrome.

Big-Five Personality Traits

Personality is a non-static, and dynamic organization in which the mental world is shaped by internal and external factors (Piedmont, 1998).

Taxonomy is grouping objects according to their similarities and differences. In this way, we have the opportunity to examine the details of the objects we want to be classified. Also, during this review, we can discover new subclasses. Based on this definition, personality traits of people have also been subjected to a taxonomy. The five factor model of personality or the big five personality traits emerged as a result of this taxonomy (Costa and McCrae, 1992). Although all individuals in the world have these five personality traits, it is their level in each personality trait that is separate from each other. The difference of the levels in each field is related to the individual's uniqueness.

When a study of the personality traits of pilots is examined (Bartram, 1995), personality is usually subjected to a two-stage examination. One of them is pilot personality scores based on training and flight performance, while the other is personality inventory tests. The results of these tests are

not sufficient on their own, and it is also important to compare them with society norms.

Airline companies with traditional management do not use selection and elimination criteria since they mostly benefit from military pilots. However, Minnesota Multiphasic Personality Inventory (MMPI) is being tested for new pilots.

There are many studies on the personality traits of military pilots. While the extraversion and openness levels of the pilots working within the USAF are high, their agreeableness levels are observed to be quite low compared to the norms of the society (Costa and McCrae, 2006). In another study investigating gender difference (Callister et al., 1999), neuroticism levels of women were found to be higher than men. Results supporting these data were also obtained in subsequent studies (Fitzgibbons et al., 2004). There is a negative relationship between neuroticism and educational achievement, and a positive relationship with extraversion (Campbell et al., 2009).

There is no common personality inventory for pilots. It can be evaluated that it may be appropriate to choose individuals who are calm, able to make the right decision, questioning, psychophysiologically strong in their work.

Methodology

Pilots working in commercial airline companies form the universe of the study. The sample of the study is 304 commercial airline pilots who voluntarily agreed to participate in the study. Between 1 March 2018 and 1 August 2018, surveys and scales were sent to 349 people who could be reached, it was understood that 321 people responded to the data collection tools, and 304 were found to be suitable for use. In this context, it was understood that the rate of returning to the questionnaires was 91.9%.

As data collection tools, firstly a questionnaire including demographic information was used, and then scales for defining burnout and big five personality traits were used. The scales are prepared as 5-point Likert scales and have been previously validated and reliable.

Burnout Scale: The “Maslach Burnout Inventory” (MBI) developed by Christina Maslach and Susan E. Jackson (1981) was used to measure burnout in the study. Scale; It consists of a total of 22 statements and three dimensions; 9 statements for emotional exhaustion, 5 for depersonalization, and 8 for personal success.

Five-Factor Personality Scale: The Big Five Personality Scale (BFI) developed by John, Donahue, and Kentle (1991) was used to

determine five-factor personality traits. Scale; It consists of a total of 44 statements and 5 dimensions; 8 for extraversion, 8 for neuroticism, 9 for conscientiousness, 9 for Agreeableness, and 10 for Openness/Intellect.

H_1: The five major personality traits of pilots differ comparing to their tenure.

H_2: The burnout levels of pilots differ comparing to their tenure.

H_3: There is a significant difference between the five major personality traits of pilots and their burnout levels.

The data obtained were analyzed with the help of a statistics program, SPSS version 20.0. In the analysis of the data, the reliability and factor analysis of the scales used to measure the personality traits and burnout levels of the participants were made. In this study,

a) Frequency / percentage analysis and ANOVA test in the distribution of demographic characteristics of the participants,

b) Tukey HSD test for multiple comparison tests

c) Correlation and regression analyzes were applied to test the co-change between variables.

Results

When Table-1 is examined, it is understood that most of the pilots participating in the study were male (87.8%) and almost half of them were married (55.5%). Most of them are master or doctoral graduates (65.4%). The average age of the sample is 44 and the general age distribution is between 26 and 55 years. Most of them are co-pilots and their professional seniority ranged from 6 to 30 years.

Table 1: Demographic factors

Gender	n	%	**Marital Status**	n	%
Male	267	87.8	Married	169	55.5
Female	37	12.2	Single	135	44.5
Education			Age		
High School	3	1.1	17-25 years	13	4.2
University	102	33.5	26-35 years	90	29.6
Graduate and postdoc	199	65.4	46-45 years	83	27.3
			46-55 years	88	28.9
			+55 years	30	10
Status			Seniority/tenure		
Captain Pilot	113	37.2	1-5 years	7	2.5
Co-pilot	191	62.8	6-10 years	93	30.5

			11-20 years	97	31.9
			21-30 years	92	30.2
			+30 years	15	4.9

In the study, Exploratory Factor Analysis was used in the validity analysis of burnout and the five major personality scales. Kaiser-Meyer-Olkin (KMO) values, the significance of Bartlett test and the resulting chi-square value show that factor analysis can be used to determine the suitability of the data for factor analysis. (For burnout; KMO: 0.857; Bartlett's Test of Sphericity: $\chi^2 = 2354.531$; $p < 0.001$) (For five large personalities; KMO: 0.821; Bartlett's Test of Sphericity: $\chi^2 = 4367.192$; $p < 0.001$).

Table 2 shows the results of the factor analysis for burnout and five large personality scales. Accordingly, it was determined that there are 3 dimensions with an eigenvalue greater than 1 for the burnout scale, and 5 dimensions with an eigenvalue greater than 1 for the other scale.

In terms of the feature tried to be measured, the EE dimension explains 32.63%, the DP dimension explains 8.11% and the PA dimension explains 16.76%. These three factors explain 57.5% of the total variance.

The EV dimension explains 6.34% of the feature tried to be measured, NE dimension 21.43%, CO dimension 11.32%, AG 5.32%, and OI dimension 6.89%. These five factors explain 51.3% of the total variance.

Considering the results of the reliability analysis of the dimensions of the burnout scale, it is evaluated that all scales and sub-dimensions have high levels of explanatoryity.

Table 2: Factor analysis and reliability test results

Scales	Factors	Factor loads	KMO	Barrlett Sig.	Exp. Variance	Total variance	C. Alpha
	EE	0.60-0.72			32.63		0.87
	DP	0.53-0.72	0.857	0.000	8.11	57.5	0.78
	PA	0.54-0.71			16.76		0.81
	EV	0.43-0.72			6.34		0.77
	NE	0.44-0.74			21.43		0.72
	CO	0.55-0.62	0.821	0.000	11.32	51.3	0.81
	AG	0.42-0.67			5.32		0.79
	OI	0.45-0.63			6.89		0.75

EE: emotional exhaustion, DP: Depersonnalization, PA: Personal Achievement, EV: Extraversion, NE: Neuroticism, CO: Conscientiousness, AG: Agreeableness, OI: Openness/Intellect

ANOVA test was conducted to determine whether the burnout sub-dimensions and five major personality traits of the pilots participating in

the study differed according to their professional seniority. As seen in Table 3, it has been determined that there is a differentiation in CO dimension [F = 2.356, p <0.05]. There was no statistically significant difference in other dimensions. In this context, it can be stated that the first hypothesis of this study "$\boldsymbol{H_1}$: The five major personality traits of pilots differ comparing to their tenure" is partially accepted.

It was observed that there was a partially significant difference between professional seniority and the burnout dimensions of pilots. Accordingly, significant differentiation was found in DP [F = 2.872, p <0.05] and PA [F = 4.214, p <0.05] dimensions. Therefore, it can be stated that the second hypothesis of the study "$\boldsymbol{H_2}$: The burnout levels of pilots differ comparing to their tenure" is partially accepted.

Table 3: Differentiation of sub-dimensions according to professional seniority

Scales	Tenure	n	Mean	StD.	F	p
EV	1-5	7	3.76	0.72	0.357	0,897
	6-10	93	3.85	0.75		
	11-20	97	3.90	0.65		
	21-30	92	3.74	0.71		
	+30	15	3.45	0.70		
NE	1-5	7	2.74	0.45	0.732	0.613
	6-10	93	2.67	0.43		
	11-20	97	2.79	0.77		
	21-30	92	2.71	0.57		
	+30	15	2.77	047		
CO	1-5	7	3.68	0.53	2.356	**0.003**
	6-10	93	3.56	0.79		
	11-20	97	3.78	0.47		
	21-30	92	3.69	0.67		
	+30	15	3.87	0.46		
AG	1-5	7	3.64	0.67	0.415	0.647
	6-10	93	3.56	0.52		
	11-20	97	3.89	0.65		
	21-30	92	3.76	0.69		
	+30	15	3.16	0.78		
O/I	1-5	7	3.76	0.43	0.156	0.932
	6-10	93	3.45	0.32		
	11-20	97	3.87	0.56		
	21-30	92	3.64	0.33		
	+30	15	3.36	0.65		
EE	1-5	7	2.83	0.23	0.524	0.672
	6-10	93	2.93	0.43		
	11-20	97	2.45	0.44		
	21-30	92	2.52	0.76		
	+30	15	2.13	034		
DP	1-5	7	2.43	0.22	2.872	**0.021**
	6-10	93	2.33	0.87		
	11-20	97	2.21	0.79		
	21-30	92	2.61	0.55		
	+30	15	2.01	0.38		

PA	1-5	7	2.34	0.44	4.214	**0.004**
	6-10	93	2.36	0.14		
	11-20	97	2.65	0.77		
	21-30	92	2.11	0.49		
	+30	15	1.87	0.78		

EE: emotional exhaustion, DP: Depersonalization, PA: Personal Achievement, EV: Extraversion, NE: Neuroticism, CO: Conscientiousness, AG: Agreeableness, OI: Openness/Intellect

It was understood that the variances were homogeneous after the Levene test. Tukey HSD test was conducted to determine the direction of the difference in the dimensions of CO, DP and PA, where a significant difference was detected according to professional seniority. It shows that pilots with 6 years and more seniority have higher responsibility (CO). It can be stated that the lower the professional seniority, the higher the depersonalization. Therefore, pilots flying for 5 years or less have a higher insensitivity (DP). Similarly, pilots with low professional seniority were found to be at a low level in PA size.

Table 4: Correlation between big-five personality traits and sub dimensions of burnout

		1	2	3	4	5	6	7
Big-five personality traits	EV	-						
	NE	-,534**						
	CO	,401**	-,537**					
	AG	,432**	-,649**	,409**				
	OI	,590**	-,298**	,399**	,521**			
Burnout	EE	**-,244****	**,421****	**-,331****	**-,221****	-,102		
	DP	-,289**	,313**	-,521**	-,242**	-,143*	,201**	
	PA	-,604**	,642**	-,453**	-,367**	-,233**	,112**	,213**

EE: emotional exhaustion, DP: Depersonalization, PA: Personal Achievement, EV: Extraversion, NE: Neuroticism, CO: Conscientiousness, AG: Agreeableness, OI: Openness/Intellect

***p<0.01; *p<0.05*

Table 4 shows the correlation between five major personality and dimensions of burnout. When the table is examined, between EV and EE (r: -.244, p<0.01), between EV and DP (r: -.289, p<0.01), and between EV and a PA (r: -.604, p<0.01) negative and significant relationships were detected. In addition, positive significant relationships were found

between NE and EE (r: .421, p<0.01), between NE and DP (r: .313, p<0.01), and between NE and PA (r: .335, p<0.01). Between CO and EE (r: -.331, p<0.01), between CO and DP (r: -.521, p<0.01), and between CO and PA (r: -.453, p<0.01) negative and significant relationships were detected. Between AG and EE (r: -.221, p <0.01), between AG and DP (r: -.242, p<0.01), and between AG and PA (r: -.367, p<0.01) negative and significant relationships were identified. Another personality trait was not found to be a significant relationship between OI and EE (r: -.102, p>0.01). Negative and significant relationships were found between OI and DP (r: -.143, p<0.01) and between OI and PA (r: -.233, p<0.01).

Table 5: Corrected R^2 Analysis

Model	B	SHB	β	T	P	R	R^2	Corrected R^2	Durbin Watson
(F:53.934), P:0.000)						0.649	0.351	0.378	1.742
Fixed	3,133	0.321		9.899	0.000				
EV	-0,281	0.032	-0.321	-4.214	0.000				
NE	0,356	0,021	0,217	5.367	0.000				
CO	-0.112	0.039	-0.132	-3.112	0.000				
AG	-0.067	0.045	-0.023	-2.123	0.214				
OI	0.011	0.043	0.031	0.621	0.623				

According to table 5, approximately 35% of the variability in the burnout levels of the pilots according to the R^2 value in the regression model is explained by the dimensions of the five great personalities. When the calculated F value (53.934) was examined, it was determined that the model as a whole was valid at a significance level of 0.01. In addition, the Durbin-Watson value indicates that there is no autocorrelation for the model (1.5 <2.192 <2.5).

All relationships between dependent and independent variables were not found to be significant. According to the findings, the burnout variable is significantly affected by the EV, NE, and CO dimensions of five large personality dimensions.

Discussion & Conclusion

Burnout is a very serious risk especially for organizations operating in the service sector. Considered together with toxicity, it is considered that burnout among the staff can become an epidemic.

Destruction is an inevitable end in organizations where burnout is widespread. Therefore, in this study, the aviation sector, which has high costs and high risk to operate, is discussed. The burnout levels of pilots,

one of the most important actors of the transportation process in this sector, have been examined.

According to the results of the survey and scale study, it was determined that there is a negative relationship between EV, CO, AG and OI, and a positive relationship between burnout and NE in terms of personality traits. Examining personality traits that affect burnout levels in personnel selection will be an important milestone in institutional development.

EV, NE and CO were found to be significant features on burnout levels. However, AG and OI did not show a significant effect on burnout. The fact that pilots have extroverted and responsible personality traits can be expressed as a factor that reduces their exposure to burnout.

In order to reveal the relationship between tenure and burnout, the situation of the pilots was examined. There was no statistically significant difference between EV, NE, AG, OI and EE (sub-dimension of burnout). There is a statistically significant difference in the CO dimension. It was also found that there was a significant difference in terms of DP and PA, which are sub-dimensions of burnout. In this context, the attitudes and behaviors of pilots doing the same job in the same working environment against the threat of burnout may differ. This is a situation that can generally be explained within the personality traits of pilots.

The public and private sectors have a great responsibility to reduce burnout in the workplace. Therefore, it can be expressed as the first step for governments to take modern and principled management decisions. In addition, ensuring justice in the reward and punishment system, and securing personnel rights with laws should be seen as important goals. Organizations, on the other hand, should clearly define the job descriptions of their employees and focus on orientation training in particular. Establishing permanent mechanisms for solving problems, determining the arguments that push staff to deadlock, and choosing a participatory management system may be useful in reducing burnout.

It is not an expected situation for individuals who do not work in a job suitable for their personality structure to be successful in their jobs. It may be beneficial for organizations to reconsider the selection of employees against situations that may result in burnout, frustration and eventually leaving the job. Employment of individuals with personality traits prone to burnout in critical positions may cause irreparable damages in the future.

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Chapter 2

THE EFFECT OF FESTIVALS FROM ALTERNATIVE TOURISM TYPES IN DESTINATION IMAGE AND ITS CONTRIBUTION TO THE REGION: SAMPLE OF AYVALIK INTERNATIONAL DISABLED FESTIVAL

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INTRODUCTION

The economic growth reached by the tourism sector, the increase in the number of visitors and income from tourism; It encourages the emergence of new destinations and competition intensifies to attract more visitors between destinations (Çerçi, 2013: 12). For destinations that need to incorporate many elements in order to gain competitive advantage, festivals are organizations that are organized to attract tourists to the region (Şengül and Genç, 2016: 79). Festivals are events organized periodically to celebrate, commemorate or share the unique values of the society and exhibit the social and cultural richness of the society (Giritlioğlu et al., 2015: 308). Festivals can help to create new sources of income, increase the awareness of destinations, and contribute to the creation of new infrastructure and services or the development of existing ones, to improve the image of the destination and to make repeat visits (Çelik, 2009: 45).

Like all commercial businesses in the destination, to extend the tourism activity to twelve months and to achieve a competitive advantage compared to other regions, to generate income economically; they have turned to alternative tourism types in order to become a cultural and touristic attraction center. For these reasons, festival tourism has started to come to the fore as an alternative approach in the marketing of many destinations in recent years.

Although the level of awareness is at a certain level, Ayvalık can strive to stand out with alternative tourism types in order to compete with rival destinations. This study was carried out in order to increase the awareness of the destination even more, to generate revenue and to contribute to the destination image. The purpose of this research study is to maximize the success of the festival by determining the current state of the "Ayvalık Festival for the Disabled (Festival)" from the perspective of academicians, public and local stakeholders, the level of development and the effects of the touristic image it has provided to the district and the deficiencies, and to contribute to tourism.

2.1.DESTINATION CONCEPT

In the current Turkish dictionary published by the Turkish Language Association (TDK); it is seen that there are various definitions regarding the destination defined as "destination" (www.tdk.gov.tr). The United Nations World Tourism Organization (UNWTO) defines the destination as "it is a physical place where a tourist stays at least one night and includes tourism products such as support services, attractions and tourist resources during a one-day travel period". (According to Çakıcı and Aksu (2007),

destinations are areas that have attractiveness, are equipped with a certain level of infrastructure and superstructure, fulfill the travel conditions, can offer certain services and have a certain image. and places with different characteristics than other regions ”(Akyurt and Atay 2009, p. 1).

2.2.DESTINATION IMAGE CONCEPT

The concept of image is a term that evokes different meanings in different disciplines. While image refers to a visual representation in psychology, the concept of image in behavioral geography is more holistic and includes all associated impressions, knowledge, feelings, values, and beliefs. However, in marketing definitions, attributes that make up the image are pointed out and image is associated with consumer behavior (Jenkins 1999, p. 1). The concept of image is expressed in the literature as the sum of the emotional and aesthetic impressions formed in the minds of the consumer / customer about the product or service. Destination image is the expression of all the information, impressions, prejudices and emotional thoughts a person or group has about a particular place (Özdemir 2008, p. 105). According to another definition, image is generally accepted as a behavioral structure consisting of the global impression about an object or a target and the mental reflection of the individual’s beliefs and feelings. Therefore, the destination image; information, feelings and impressions that people have about a destination (Baloğlu & McCleary 1999, p. 870). Gartner (1993) explains the destination image as a set of perceptions, knowledge, feelings and thoughts about any region. According to İlgüner and Asplund (2011), the image consists of perception related to that place, changing from person to person and more personal. Image is a simplified expression of dozens of information and associations about that place.

2.3. THE EFFECT OF FESTIVALS AND FESTIVALS IN THE CREATION OF DESTINATION IMAGES

Ayvalık destination is one of the destinations with high tourism potential with its cultural areas, history, natural beauties, beaches, unique cuisine, climate and islands. In addition to the natural attractions of Ayvalık destination, the urban texture formed by the neo-classical civil architecture examples in Ayvalık center and Alibey (Cunda) Island also enriches the tourism supply of the destination. Basically, the district looks like an open museum. Ayvalık; today, it is an important touristic destination with its rich history, unique nature, cultural potential, brand value products, century-old cuisine and Sarımsaklı beaches (Gökdeniz.2020: 51).

Regions and Cities need to brand as a destination, create and promote their own images, and determine marketing policies in this direction. Today, it is mostly the destination, not the country, which actually creates

the demand (İlban, 2007: 11). The purpose of creating an image of the destination can be stated as contributing to the establishment of an emotional connection between the tourists who visit the destination or are asked to visit and the destination, and to enable the visitors to visit the destination again.

Festivals are emerging as a growing tourism and leisure and recreation appraisal industry around the world. Festivals have significant economic, sociocultural and political effects at the destination or the host community (Arcodia and Whitford, 2006: 1). Many countries in the world; It attracts tens of thousands of tourists every year with its local, national and international festivals (Çoban and Süer, 2018: 61). In Taiwan, for example, numerous festivals have been developed in many cities and towns to spread a sense of locality by combining cuisine and related elements. (Chen et al., 2018: 61). These festivals contribute to the creation of a positive image of the destination on the consumers by creating a harmonious relationship between destinations and festivals.

Festivals have a great role in the formation of the image of the city. Many cities such as Rome, New York, Barcelona, Paris, Istanbul have a good image in the eyes of consumers who demand destinations today, and the events organized in the cities (sports organizations, festivals, festivals, etc.) have a great effect. Festivals provide economic, social and cultural benefits to the communities in the region where they are held and contribute to destination marketing with event tourism (Tanford et al., 2017: 209).

The use of different communication channels in the promotion of destinations, and innovative and interesting public relations activities and organizations that can take place in the national and international press have effective results (Aksungur and Kastal, 2007: 36). Festivals can be defined as enjoyable activities in traditional programs or periods, or events that celebrate a concept, event or phenomenon in a festive atmosphere and open to the public (İlban et al., 2015: 501).

It is very important for the festivals to act as a promotional and marketing tool in addition to their direct economic contribution. Thanks to the festivals, all the attractions of the destination, especially the cultural elements, are transferred to the visitors. In addition, media attention is important to reach more potential tourists (Şengül and Genç, 2016: 81). Therefore, festivals are recommended as tools to enhance local brand values and images (Jago et al., 2003: 3). Festivals not only provide economic benefits to the destinations, but also the promotion of the destination in the international arena thanks to the tourists coming to the region from different countries. When festival tourism is compared to

other tourism types; It has different characteristics in that it is generally an activity held once a year in a certain region for a short period of time (İlban et al., 2015: 501).

3. METHOD

The purpose of this research is to determine the current status of the "Ayvalık Festival for the Disabled" held in Ayvalık from the perspective of local stakeholders consisting of business owners, public institutions, academicians residing in the region and association representatives, the level of development of the organization activities and the positive and negative contribution it provides to the district and It is the determination of the effects of the image. The study is important in terms of creating suggestions in line with the information obtained and strengthening the development of tourism activities in the region by taking the necessary measures in this direction and determining the effect of the region on promotion and image-building activities.

The festival, held for the 27th time in 2019; Balikesir Governor's Office, the Metropolitan Municipality of Balikesir, Ayvalık District, Ayvalık Municipality, Turkey Disabled Association of cooperation and Family, Labor and Social Services is organized with the support of the Ministry (I https://medyaayvalik.co). The 27th Ayvalık International Festival for the Handicapped, which lasts for 6 days; It was held with the participation of guests from abroad, representatives and members of associations with disabilities from 81 provinces, journalists as well as speakers. Members of disabled associations from different provinces had the opportunity to come together in the event. This year's slogan of the event, which deals with a different aspect of the disabled every year; it has been in the form of "Let's Overcome the Obstacles Together". (The 28th Festival in 2020 was canceled due to the pandemic.)

Research Universe and Sample

The universe of the research consists of the local stakeholders who are affected by the organization of the festival and who are affected by the festival. The data of this research; The officials involved in the organization of the festival, 5 public institutions and organizations, and 2 hotel managers, 2 agency officials, press officials and other stakeholders, who were interviewed to see the festival's contribution to the district tourism and image, on 26 October - 22 November 2019 and 5 It was obtained through face-to-face interviews and written answers to written questions between 20 March 2021.

This research is a qualitative research. In qualitative studies, easily accessible situation sampling, which is one of the multi-purpose sampling methods, is used. In this method, since the researcher chooses a situation that is easy to access, this method provides speed and convenience to the researcher. For this reason, easily accessible situation sampling, one of the multi-purpose sampling methods, was used in this study.

Data Collection Process of the Study

In this study, semi-structured interview technique, which is one of the data collection methods for qualitative research, was used. In the study, face-to-face interviews were made with 14 people representing local stakeholders and recorded with a tape recorder. (Due to the pandemic conditions, participants were given the opportunity to send and send voice recordings and give written answers to the questions in the continuation of the study in 2021). In addition to these questions, in order to reach the desired answers within the scope of the questions asked to the participants, provided that they do not go beyond the subject; questions such as why, how and what did you mean were asked. The interview form for the purpose of the study was prepared based on the main theme "What can be done to measure the effect of the" Ayvalık International Disabled (Festival) Festival "on the image process and to increase its image and contribution to the region in the formation of the image of the Ayvalık destination".

In the study conducted by Çoban and Süer (2018), the questions they used for the interview were changed by adapting them to the "Ayvalık International Disabled (Festival) Festival". The research questions formed are as follows (Çoban and Süer, 2018: 61):

1. What do you think is the main reason for organizing the Ayvalık International Festival for the Handicapped?

2. Do you think the festival has a feature to increase the number of tourists coming to the region?

3. What do you think are the reasons for tourists coming to Ayvalık to come?

4. Could you explain the importance of the festival in terms of accommodation and other businesses?

5. How do you evaluate the impact of the festival on the formation of the destination image in terms of the region?

6. What suggestions can you make to increase the promotional contribution of the Festival, which has been organized for 27 years, to the region?

7. What do you think can be done to increase the national and international recognition of the festival?

Analysis of Research Data

In most of the interviews with the Participants living in the destination or in the region during the festival, voice recordings were taken, and the sound recordings they created by answering the questions sent to the participants were used and the sound recordings obtained later were turned into written documents. The minority is combined with written data obtained. Participants interviewed were coded as K1, K2, K3 and K14, and these codes were also included in the analysis. If data adequacy is defined while collecting data and no new information is obtained in the answers given to the questions, then it means that saturation has been reached in the research (Morse, 1995: 147). For this reason, since the answers given in the study were repeated after a certain point and new information was not obtained, the study was limited to 14 people. The descriptive statistics about the position, gender, and age and graduation status of the people included in the study were included.

The questions in the semi-structured interview form were prepared according to seven themes. Content analysis and descriptive analysis were performed using the data obtained from the interviews with the participants. In the descriptive analysis method; the data obtained are summarized and interpreted under previously determined titles (such as themes) (Coşkun et al., 2015: 324).

4. RESULTS

In the interview, people who participated in the research we conducted voluntarily conveyed their ideas, suggestions and comments to the interviewer in response to semi-structured and open-ended questions by direct voice recording or by sending a voice recording. In the first part of the interview documents, it was aimed to reach demographic information. Frequency distribution was used to analyze the demographic characteristics of the participants. As seen in Table 1, when the profiles of the interviewees are examined, it is seen that the majority (71.14%) are male participants.

Table 1. *Profiles of Interviewed Participants*

Code	Occupation	Age	Gender	Education status
K1	Public Institution Official	54	Male	License
K2	Public Institution Official	60	Male	License
K3	Public Institution Academician	51	Female	Doctorate
K4	Public Institution Academician	55	Male	Doctorate
K5	Public Institution Academician	48	Male	License
K6	Hotel Manager	51	Male	Post Graduate
K7	Hotel Manager	46	Male	License
K8	Association Manager	52	Male	License
K9	Written Press Official	47	Male	License
K10	Business Owner	51	Female	High school
K11	Business Owner	54	Male	High school
K12	Disabled Participant	43	Female	License
K13	Agency Owner	55	Male	License
K14	Agency Authorized	50	Female	License

It is seen that a significant portion of the interviewees (71.42%) are over the age of 50 and a significant portion (64.42%) is undergraduate. The majority of the individuals participating in the research (62.5%) work in the private sector. In the second part of the interview form applied in the study, 7 questions were asked to the participants. As a result of the interviews, the organized version of the answers received within the framework of the research questions is as follows.

Evaluations of the Participants on Research Questions on the Ayvalık Disabled Activity

In this section, the codes and themes that emerged as a result of the detailed analysis of the answers given by the participants in the study to the questions are included.

Question 1. What do you think is the main reason for organizing the Ayvalık International Disability Event?

Table 2 shows the codes and themes that emerged as a result of the analysis of the interviews in which the participants expressed their views on the reason for the organization of the Ayvalık International Festival for the Handicapped.

Table 2.*Participant Views Regarding the Reason for the Organization of the Festival*

Themes	Sub Themes	Codes
1-Arrangement Reason(25)	*1.1. Contributing to tourism* *1.2. Creating disability awareness* *1.3. Disabled cohesion* *1.4. Providing holiday opportunities for the disabled* *1.5. Disability awareness*	*Contributing to tourism (8)* ✓ **Promote Ayvalık (5)** ✓ **Extending the season (3)** *Disabled socialization (7)* ✓ **Fusion (5)** ✓ **Awareness (2)** *Creating disability awareness (6)* *Providing vacation opportunities for the disabled (4)*

The statements of the participants regarding the reason for the festival are as follows:

K8: Disability scale is not very convenient conditions to take a vacation in Turkey. Ayvalık is an event held 27 years ago for disabled people to come together, socialize and rehabilitate. Disabled people, most of Turkey rather than go instead to come together with their partners say they feel themselves free than they spend time with them.

K12: The aim is to gather together all people with disabilities in Turkey is addressing the problems that mainstreaming of persons with disabilities to live and speeches and panels. In this way, our elders listen to our requests and mediate where necessary. They listen to our problems and try to find solutions.

K7: In destinations such as businesses, they are looking for various alternatives to spread tourism activity to 12 months, to get ahead of other regions and to increase their income. Disabled Festival is also preferred for Ayvalık region.

Question 2. Do you think the festival has a feature to increase the number of tourists coming to the region?

Table 3.*Participant Opinions on the Feature of the Festival to Increase the Number of Tourists*

Themes	Sub Themes	Codes
2-Tourist Enhancing Feature (14)	*2.1. There is an increase* *2.2. Not enough increase*	**There is an increase (11)** **Not enough increase (3)**

Statements of the participants regarding whether the festival has a feature to increase the number of tourists coming to the region are as follows:

K9: If I'm not mistaken, the festival has been made "international" since its 6th year. The state minister responsible for the disabled at the time ensured the participation of disabled groups from the Netherlands, Greece, Bulgaria, Romania and Azerbaijan. When the festival was made international, the international media paid close attention to the festival. This situation added a brand new face to Ayvalık's tourism vision in the international arena. Apart from that, the disabled, who mingled with each other at the festivities, came to Ayvalık at the first opportunity when they returned to their homeland and improved their relations with their fate friends with whom they formed friendships. This situation enabled disabled and disabled families to come to our district for more tourism purposes. As a result, some hotels tried to get their share from this trend by making a few rooms unimpeded. Currently, many more hotels and touristic facilities continue to accept guests in this direction.

K1: It is thought that it contributes to the awareness and recognition of Ayvalık through word of mouth advertising. In addition, it is possible to say that many news in national and international media positively affected the demand.

K13: The mobility that occurs in the region with the festival naturally increases the number of people. Disabled people participating in the festival bring their families, relatives and friends to the festival as well as themselves.

Question 3. What do you think are the reasons for tourists coming to Ayvalık to come?

Table 4.*Participant Views Regarding the Reasons for Coming Tourists to Ayvalık*

Themes	Sub Themes	Codes
3-Visit Reason (30)	3.1. Natural and cultural features 3.2. sea sand Sun 3.3. Gastronomy 3.4. Water sports 3.5 Ease of transportation	Natural and cultural features (12) ✓ Culture (7) ✓ Nature (5) Sea sand sun (8) Gastronomy (6) Water sports (2) Ease of transportation (2)

Statements of the participants regarding the reasons for tourists to come to Ayvalık are as follows:

K14: Domestic tourists mainly come to the Ayvalık region for sand, sea and sun purposes. There is almost no foreign tourist (individual) in the region. There are citizens of Balkan countries (Macedonian, Bulgarian, Bosnian etc.) who come to the region in summer with organized tours. In addition, there are also individual or group guests coming from big cities for gastronomy, history and culture purposes in recent years.

K11: The main purpose is sea, sand, natural and historical beauties. In addition, the weather and climate are suitable. Everything is suitable for tourism in Ayvalık. Olive cultivation and olive tourism, as well as the richness of the local (Ayvalık) and sea cuisine make the region an important destination. Festivals increase the recognition of this

K9: Ayvalık; It is a rare city in the world in terms of tourism diversity. It is one of the rare touristic places with historical and natural beauties. It has many alternatives such as its sea, sand, and its unique oxygen-rich air, maintaining the tradition of the Crete and Lesbos Cuisine, and being suitable for surface and underwater sports activities. That is why Ayvalık is one of the rare attractions that manages to attract millions of tourists every year.

Question 4. Can you explain the importance of the festival in terms of accommodation and other businesses?

Table 5.*Participant Views on the Importance of the Festival for Businesses*

Themes	Sub Themes	Codes
4-Contribution to Businesses (22)	4.1. Contribution to businesses 4.2. Contribution to hotels 4.3. Creating disability awareness 4.4. Contribution to tourism	Contribution to businesses (9) ✓ Restaurants (3) ✓ Shop from shopkeepers (4) ✓ Entertainment businesses (2) Contribution to hotels (7) Creating disability awareness (4) Contribution to tourism (2) ✓ Extending the season ✓ Contribution to brand image

The statements of the participants about the importance of the festival in terms of accommodation and other businesses are as follows:

K9: The expenses of the festival were undertaken by the relevant ministries, Ayvalık Municipality, Balıkesir Metropolitan Municipality, Ayvalık District Governorship and some of the Balıkesir Governorship in recent years. Of course Turkey with disabilities and their families all over the county came to be hosted in around 1500 allows tourist facilities. Of course, the disabled festival was held in early May, which was before the tourism season, but now it is organized at the end of September, after the tourism season. This situation paves the way for many touristic businesses to close the season with a little more profit at the end of the season. Not only touristic facilities, but also the disabled people and their families who participate in the festival contribute to the restaurant and entertainment sector during the festival.

K10: - Organizing the festival in September provides the opportunity to extend the season for managers who are considering closing their businesses. This is considered as an additional season and means additional employment. It is of great importance for operators and side tradesmen

K13: Disabled people have a lot of positive contributions to subsidiary businesses. They provide cash flow by adding dynamism to the region during the dead season. It increases the number of tourists and hence increases tourism income. Festivals are cultural tourists as they are an element of cultural tourism. Cultural tourists also spend more than other tourists. It interacts with local people. For this reason, it will contribute to the city's identity as well as economic contribution.

Question 5. How do you evaluate the impact of the festival on the formation of the destination image in terms of the region?

Table 6.*Participant Views Regarding the Effect of the Festival on the Creation of the Destination Image*

Themes	Sub Themes	Codes
5- Effect on Destination Image Formation (14)	*5.1. To image It has a contribution* *5.2. To image no contribution*	It contributes to the image (13) ✓ Increased recognition (9) ✓ Disability friendly image formation (4) It does not contribute to the image (1)

The statements of the participants regarding the effect of the festival on the formation of the destination image are as follows:

K3: Another contribution of festival tourism; it helps to expand regional tourism both periodically and regionally. So; Festivals contribute to the development of the tourism of countries stuck within certain seasons or destination boundaries. In addition, by exhibiting the cultural values of the region and the country thanks to the festivals, the promotion of the host country, cities and even the smallest settlements to the world public opinion can be made effectively and the region can appear among the brand cities in a short time. It can be said that festivals make positive contributions to the formation of the destination image.

K8: This event introduces Ayvalık very well, especially in the disabled community, Ayvalık is well known and the people with disabilities who visit this place tell their surroundings about what they do in Ayvalık. Disabled Festival is among the top three in recognition of Ayvalık. When we say disability, social consciousness comes into play, and people's perspective changes. It is one thing for a province to embrace the disabled, another thing to sell its product.

K10: Comfortably hosting disabled people who encounter difficulties in every aspect of the day, valuing them and making their facilities suitable for disabled people and making them habitable will cause disabled people to prefer the region outside the festival and the image of the region will improve day by day.

Question 6. What suggestions can you make to increase the promotional contribution of the Festival, which has been organized for 28 years, to the region?

Table 7.*Participant Views on Increasing the Contribution of the Festival to the Region*

Themes	Sub Themes	Codes
6- Increasing the Contribution of the Festival to the Region (21)	6.1. Improving the effectiveness 6.2. Increasing destination accessibility 6.3. Creating disabled-friendly products	Improving effectiveness (10) ✓ Effective use of media (4) ✓ Extending the time (2) ✓ To be promoted at tourism fairs ✓ Adding an activity with a sponsor ✓ Ensuring the participation of different disabled people ✓ Workshop or congress Increasing destination accessibility (6) ✓ Improving hotel accessibility (4) ✓ Increasing city accessibility (2) Creating disabled-friendly products (5) ✓ Disability discounts in businesses (2) ✓ Workshop (gastronomy, handicraft, painting, glass, ceramics and mosaic) (2) ✓ Competitions

The statements of the participants to increase the contribution of the festival to the region are as follows:

K3: These activities, which are renewed every year and stand out as an activity that creates awareness in the region, also make a significant contribution to the recognition of the region in national and international visual and print media. At this point, my suggestion is; The main goal should be to extend this activity a little longer and to bring more people to the region by including touristic items such as gastronomy, culture and nature. It is the creation of added value to the local economy by organizing similar events on different dates that include these topics (such as gastronomy, culture and nature) in the region. At this point, it is a basic necessity to carry out these works with strong sponsors or to ensure that strong companies take part in such projects.

K4: -More awareness and disability friendly products should be created. It may be suggested that some accommodation facilities and travel companies in the region tend towards tourism for the disabled, that local governments make their infrastructure and superstructure arrangements

for disabled individuals, and that the international workshop or congress and the festival are held simultaneously.

K6: Especially the press and media should support this. While representing our region in tourism fairs, I think we should inform that such an event is taking place in Ayvalık. We have to explain that we have such a disabled week in Ayvalık every year. And I think there will be more positive returns and then more impact on tourism.

Question 7. What do you think can be done to increase the national and international recognition of the festival?

Table 8.*Participant Views on Increasing the National and International Recognition of the Festival*

Themes	Sub Themes	Codes
7- Increasing Festival Recognition (20)	7.1 Increasing social activities 7.2. Increasing event recognition 7.3. Improving accessibility	Increasing social activities (9) ✓ Inviting celebrities (3) ✓ Invitation of disabled artists ✓ Boat tour, picnic, trip, etc. ✓ Photography, painting contests ✓ Art, aroma and music therapy ✓ Creating a custom tour program ✓ Inclusion of herbs, olives and pine nuts Increasing event recognition (9) ✓ Promotion in foreign fairs (2) ✓ Invitation of foreign media and writers ✓ Working with social media influencer ✓ Broadcasting a public spot ✓ Efficient use of social media ✓ Use of media in promotion of the region ✓ Agreement with tour operators ✓ Ensuring participation at ministerial level Improving accessibility (2) ✓ Improving the urban infrastructure ✓ Increasing the number of disabled hotels

The statements of the participants to increase the national and international recognition of the festival are as follows:

K5: Creating effective communication channels at national and international level, developing cooperation with international institutions and organizations, Increasing the use of social media, using digital marketing opportunities effectively, benefiting from youtubers, influencers or bloggers, ensuring the participation of heads of state, artists and popular identities at the international level Creating tour programs, improving transportation opportunities in the form of fly and drive, supporting with different festival themes (such as grass, olive, pine nuts), extending the duration of the festival,

K2: Very serious infrastructure and facilities (halls, pool baskets and sports halls) and promotional activities should be done. Conference and orchestra halls, workshop studios (painting glass ceramic mosaic). Qualified famous and disabled artists should be invited and their participation should be ensured. It should be promoted with professional promoters and advertisers (organizers, advertisers, tour operators). The participation of municipalities and ministries should be increased economically (Ministry of Tourism and Sports)

K1: Projects that bring together local people and tourists with disabilities should be carried out, there should be enterprises that increase the employment of disabled people and especially tourism enterprises, workshops should be organized to answer the alternative searches of disabled tourists (gastronomy, handicraft and art workshops, etc.

5. DISCUSSION

Festivals organized in destinations play an important role in attracting visitors to that region. Ayvalık International Disabled (Festival) Festival held in Ayvalık; The meeting of disabled associations and their members in our country at the destination with this event is carried out with the aim of providing awareness in this area as well as helping to recognize the destination and promote national and international. The "Ayvalık International Festival for the Disabled", which has been continuing in Ayvalık for 27 years, has become the most important festival that increases the awareness of the Ayvalık identity. Similarly, the "Logstor Festival" in Denmark; Çoban and Süer (2018), in their studies on "Alaçatı Herb Festival" and Kurnaz and İşlek (2018), Mengen International Culinary and Tourism Festival, concluded that the festivals contributed to the increase in the recognition of the region where the festivals are held, and to the branding and image of the destination. In addition to these studies, Manthiou et al. (2014), in their research on the "VEISHEA Festival" held in Iowa, America, and Tanford and Jung (2017) in their studies on the festival literature review; It increases the value of the total tourism experience of the visitor in that destination, as the festivals offer activities

that enable them to get to know the local culture of the region; They concluded that the promotion of festivals with their program and activities in the marketing of destinations, thus creating an experiential attraction for the destination and increasing repeat visits to the destination.

Disabled representatives from Turkey around and administrators together in the authorized administrator in this field, to be tabled on disability issues and providing the attention on this issue, "Ayvalık International Disability (Festival) Festival", ie various leisure activities boat tour destination domestic trips to competitions and various activities realizes. Event participants from various provinces as well as in Turkey is participating groups abroad. The tourism dynamism experienced in the district during the festival period; brings vitality to the district in terms of socio-cultural and eco-economic aspects.

Similarly, Lemmetyinen et al. (2013), Pori Jazz Festival in Finland; Özgürel et al. (2015), "Tunceli Munzur Nature and Culture Festival"; Erdem ve Mızrak (2017) and Kurnaz and İşlek (2018) at the "Mengen International Culinary and Tourism Festival"; Bezirgan and Yetginer (2020) for the "Zeytinli Rock Festival"; Çoban and Süer (2018) concluded that the tourism dynamism experienced during the periods of the "Alaçatı Herb Festival" had a positive impact on those regions in socio-cultural and economic terms. Of course, the economic impact experienced in Ayvalık on the dates of the festival has created an effect not only on tourism businesses but also on all sectors where the multiplier effect of tourism is experienced. Most of the accommodation facilities in the region have spent this period completely.

6. CONCLUSION AND SUGGESTIONS

The limitation of the region where the data was collected in the study to Ayvalık district of Balıkesir province prevents the generalization of the research results. However, despite this constraint, the research is important in that it is the first study conducted on this festival that has been held in 27 years. This research can be a guide for determining the deficiencies in the festival held in Ayvalık, further developing the effect of the local image of the festival, and the issues to be considered while organizing future festivals and festivals in the district. The opinions and suggestions of the stakeholders may be guiding for festivals in different destinations such as Ayvalık. By evaluating the results obtained, they can be used more effectively as a destination marketing tool.

In the light of the information obtained as a result of the interviews, the reason for organizing the "Ayvalık International Disabled Event" is to provide the promotion of Ayvalık in terms of contributing to tourism and to extend the

tourism season in the region. Another reason is to create disability awareness, offer vacation opportunities to disabled people and enable them to socialize. The first reason why tourists prefer Ayvalık is that the region has natural and cultural characteristics, and the second reason is sea, sand, sun tourism. Other reasons are; gastronomy, water sports and ease of transportation. In addition, the event enables the Ayvalık destination to increase its recognition and to create a disabled-friendly image. The increasing recognition of the region, thanks to the Ayvalık Disabled Event, together with the factors that affect their choice of the region, causes an increase in the number of tourists visiting the region. In this way, restaurants, tradesmen, entertainment enterprises and hotel enterprises operating in the region have the opportunity to earn more income. Therefore, it is possible to say that the event contributed to the region both socially and economically. Of course, in terms of increasing the contributions of the event, which has significant positive effects, to the region; it is of great importance to promote the event both on social media and in the fairgrounds, facilitating access to both the region and accommodation businesses operating in the region, and creating disabled-friendly products. One of the most important factors in increasing the contribution of the event is the good implementation of promotional activities.

It is possible to list the activities that will be effective in promoting the region and forming a positive image as follows:

- Increasing social activities (celebrities or disabled artists can be invited to the event, painting competitions can be held, boat tours, picnics, sightseeing tours can be organized) In order to increase the national and international recognition and image of the festival, people who have serious followers on social media should be invited to the region and the purpose of the festival should be explained. For this purpose, entertainment and activities to be organized at the Disabled Festival can be shared.

- Carrying out activities that will increase the recognition of the event (such as the invitation of foreign media and writers, promotion in foreign fairs, using public spots, effective use of social media, agreements with tour operators and the use of the media in the promotion of the region) The necessary documents can be sent to agencies and international tour operators, and they can be included in the tour program, especially during the festivities. Later this can spread to all seasons. In this initiative, it can contribute to the international recognition of the festival and the region.

- Providing easy access to the region (such as improving the urban infrastructure and increasing the number of disabled accommodation establishments). Balıkesir Metropolitan Municipality; They stated that they have identified the problems that our disabled people experience in life, in the city, in the apartments, in their professional life and in sports

areas and put them into our 5-year action plan. Within this plan, it was stated that the disabled people in the provinces and districts share all their problems with our ministries, our municipality and relevant stakeholders and that the practices will be followed. These developments will enable positive contributions to the image of Ayvalık destination to the region as well. (https://medyaayvalik.com)

- By distributing festival events and stays to different parts of the district, the groups can make a positive contribution to the image of the region by allowing them to see all the features of the district.

- All disabled associations in Turkey and was invited associations will be determined 3 in the country will be selected each year, good hospitality and recreational facilities with the image of the destination in the international arena by providing leave satisfied and a good image for region may occur.

- If all disability groups are active in life and meet their own needs without help, a positive image will be formed automatically. Destinations that have the opportunity for the disabled to go out on their own, do their job and come home again, without being dependent on anyone, can have the image of a disabled friend. In order for the disabled people participating in the event to swim comfortably, an area that they do not need anybody should be allocated as a disabled beach. Here, with the elevator system to the sea, disabled citizens can freely enter the sea and come back to the sunbathing area. In this way, the disabled friendly destination of the region will play an important role in creating the image.

During the period when the festival took place in Ayvalık, tourism businesses and other businesses were positively affected economically thanks to the festival. Pleasant departure of the visitors to the destination area contributed to the image and promotion of the region. Although the date of the festival is the end of the season in this region, the majority of the accommodation facilities in Ayvalık destination have spent this period in full, thanks to the festival.

Successful festivals contribute to the local economy and create job opportunities. More specifically, festivals can lead to a range of non-market benefits, such as the positive image of the host destination, community pride, and enhancing the community's quality of life (Kim et al., 2018: 320).

As a result, the “Ayvalık International Disability Event” has positive effects on the region in terms of social, economic and destination image formation. Therefore, it is an important factor to increase the positive effects of the activity both in getting a bigger share from the tourism activities and in the social development of the region.

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Chapter 3

THE GASTRODIPLOMACY MODEL DEFINED WITHIN THE SCOPE OF INTERNATIONAL PUBLIC RELATIONS: THE CASE OF TURKEY[1]

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1 This study is produced from the doctoral thesis submitted to Maltepe University, Institute of Social Sciences in 2020 called "The Gastrodiplomacy Model Defined Within the Scope of International Public Relations: The Case Assessment of Turkey and Recommendations

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Introduction

The changes technology has created in the means and methods of communication in the 21st century, have given importance to the field of public diplomacy, which is a new form of diplomacy that aims to influence the public opinion of other countries and the actors that form it, and the field of international public relations, which is often mentioned with it. The use of cultural values as a prominent element of diplomacy in the field where many actors operate, and their positive contribution to the nation brand and soft power of the country are widely accepted in the academic field and practice. New diplomacy models such as public diplomacy, cultural diplomacy, digital diplomacy, gastrodiplomacy, along with traditional diplomacy, are used in the self-expression and communication activities of nations. It is pointed out that in the globalizing world, countries need permanent friends in other nations and the way to establish these friendships cannot be limited to a traditional, foreign policy-oriented, one-way communication (Melissen, 2005, p.23).

Within this context, states use international public relations to share their cultural, social, economic values and relation opportunities with the public. At the same time they use it to inform the international public about their domestic and foreign policies. According to Sancar, all the work put into the image and reputation in regards to the foreign policies of states are actually public diplomacy (2014, p. 44,54). Regarded as the components of soft power; culture, education, arts, media and sports; are counted as a part of public diplomacy which is non-governmental, public-oriented, multi-actored practice that uses public relations and communication functions and is carried out with communication tools and methods integrated with new technology. According to Nye, soft power, which requires not only military and economic strength but also a presence in world politics and certain attraction, derives its source from the culture, political values and foreign policies of the country (2005, p. 20).

Public diplomacy is referred to as a two-way road that requires systematic listening, analysis and feedback at every stage (Cull, 2009, p. 19). Especially developing countries' necessity to conduct their "national stories" proactively requires more delicate and sensitive communication activities than simple propaganda directed at the international target audience (Fan, 2009, p. 3). It is accepted that gaining the interest and sympathy of the people from other countries requires a long-term effort that demands understanding their culture and behavior. Within this context, the concept of nation branding is put forth in theory and practice by European-based practitioners and academics (Simon Anholt, Wally Olins) and discussed in terms of its similarities and differences with the concept of public diplomacy. In this study, concepts such as culture,

identity, image, communication, relation building, international public relations are evaluated as the points both fields have in common, and the concept of cultural diplomacy is within this framework.

Cultural diplomacy is recognized for its effective and wide potential for governments to both positively communicate with foreign publics and influence domestic public opinion. Its functional goals include the development of political, commercial and diplomatic interests and the establishment of mutual relations with other countries. The potential power of cultural diplomacy lies at the intersection of national culture, national values, national identity and national pride, and can manifest the true nature of a state and its people (Mark, 2009, p.37). Gastrodiplomacy, positioned in the field of cultural diplomacy, manifests a big potential that can positively affect the reputation of a nation when combined with parallel business lines and tourism branding strategies. This approach reflects the theoretical framework of the study and how it addresses gastrodiplomacy. With its versatile content, gastrodiplomacy is closely related to a state's domestic and foreign policies of food, and is considered as an important source of income besides its contributions to soft power, country brand and reputation.

Although the extent of a country's food and food-related cultural elements reflects the food culture to a great extent, the journey of the food from the soil to consumption is the main inspiration of this study. Here, gastronomy culture is compared to fertile soil, gastrodiplomacy to a tree that clings to and feeds on it, and the state is considered as the element that ensures its fruitfulness and sustainability by protecting and protecting the soil and the tree. The gastrodiplomacy model the authors present is based on the gastrodiplomacy components that reflect the interdisciplinary nature of gastronomy which are designated as cuisine culture, agricultural activities, trade, media, food sector, arts, tourism, entertainment industry, nation brand, foreign policy, food aid. The model sets forth the idea of a gastronomy culture that is transformed into a national value through creative gastrodiplomacy practice, emphasizing the role of the state that will form the integrative, basic strategies and orientations. The gastrodiplomacy model aims to present a generalizable roadmap designed to make the issue visible to all actors and to provide a basis for integrated plans and strategies by allowing analysis of the current situation. With this idea in mind the interviewees of the study are selected among representatives of ministries and non-governmental organizations, and chefs; all according to the components of gastrodiplomacy. The mentioned personalities are interviewed in detail. The study is not limited to in-depth interviews, and content analysis of the websites of the institutions to which the interviewees are affiliated are also made. The

data obtained within the scope of this study are placed in the proposed gastrodiplomacy model, testing and discovering the area presented by the model, and a proposal is developed.

1. The Concept of Gastrodiplomacy: An Overview

Food plays a key role as a communication tool, as it can be a very simple way to connect with the rest of the world. Going beyond its definition of a basic need, food gains new meanings within this context: a symbol of friendship and status, and a tool of communication, sharing and socialization. And most importantly, it maintains its power to shape world history and diplomatic interactions (Rockower, 2014, p.13). Many countries use the concept of gastrodiplomacy as a means to improve their economies, tourism and making trade deals. In the field that contains limited academic work as of now concepts such as "gastrodiplomacy", "culinary diplomacy", "food diplomacy" are used and presented within different contexts. In the beginning, in the context of public diplomacy, there was an attempt to answer the question - How do we use food in cultural communication - by applying public diplomacy theories to case studies of some cultural diplomacy practices (Rockower, 2014, p.14). Different case studies carried out by countries such as Thailand, South Korea, Malaysia, Peru provided innovative initiatives in the application of cultural diplomacy and increased academic interest in the concept of gastrodiplomacy. The term gastrodiplomacy was first used in an article by an unknown author, which was published in Economist magazine in 2002, when describing the public diplomacy campaign of Thailand called "Global Thai" (Food as Ambassador Thailands Gastro-diplomacy, 2002). In his article published in 2012, Chapple-Sokol talks about the same concept but this time, under a different name: culinary diplomacy. He defines it as the use of food and cuisine as an instrument to realize intercultural interaction and cooperation. In theoretical context, he associates the concept with public diplomacy and cultural diplomacy, non-verbal communication, nation branding, and the contact hypothesis in conflict resolution, separating it into private and public domains. He states that private culinary diplomacy takes place in diplomatic official receptions, while public culinary diplomacy takes place in state-sponsored projects on economic, commercial and publicity purposes. He argues that they should be evaluated under the heading of public diplomacy and cultural diplomacy. It excludes informal connections of food and culture and food aid against global hunger from the field of culinary diplomacy (Sokol, 2012, p.162).

Rockower, who makes some distinctions in terms of definitions under the title of gastrodiplomacy theories, distinguishes the concepts

gastrodiplomacy and culinary diplomacy. Culinary diplomacy is defined as the use of food as a tool in official receptions by statesmen, ambassadors and diplomats in official diplomatic processes, whereas gastrodiplomacy is defined as a public diplomacy initiative carried out to share a nation's food culture with foreigners at a bigger extent. Studies that aim to define gastrodiplomacy, distinguish culinary diplomacy from gastrodiplomacy, exclude food aid and other informal culture-food connections, and argue that these connections do not contain the holistic use of national culinary culture (Rockower, 2012, p.5). However, in this study, gastrodiplomacy is addressed, defined and presented with a generalizable model in accordance with the multi-component structure of the gastronomy field without making such distinction. Beyond being an indispensable physiological need, the act of eating is located at the intersection of a series of complex psychological, ecological, economic, political, social and cultural processes, the symbolic potential of eating and food is unlimited (Beardsworth & Keil, 2011, p.21, 91). Regarding food as an important diplomatic tool is also part of the food diplomacy. Food diplomacy is an interdisciplinary field that is concerned with the journey of the food from the field to the table. Although it is often overlooked, food has a very important place in international relations or politics.

While the advanced technology of modern life in the 21st century affects the food production and consumption at the highest level, integrating and managing food with its symbolic contexts, on the other hand, it is discussed whether food will be reached at the most basic level in the near future. The field of gastrodiplomacy should be evaluated from this central point of view, and it should not be overlooked that it will increase the real sectors with its multi-directional value creation potential and that it will make a positive contribution to the image and reputation of the country as an element of soft power. The definition of gastrodiplomacy, created and presented within the framework of the gastrodiplomacy model developed within the scope of this study, is based on the principle that food-related cultural elements set out to tell the story of the nation should communicate with foreign public and convey their message in a holistic approach, without being weakened by artificial distinctions. According to this definition developed by the authors and shown as a diagram in Figure 1;

> *"In addition to the nation brand, publicity and trade dimensions; gastrodiplomacy uses the cultural assets of the society that is related to food in accordance with the foreign policy of the country and the main headings of public diplomacy and cultural diplomacy in the management of the image and reputation of the nation with the help of the tools of international public relations."*

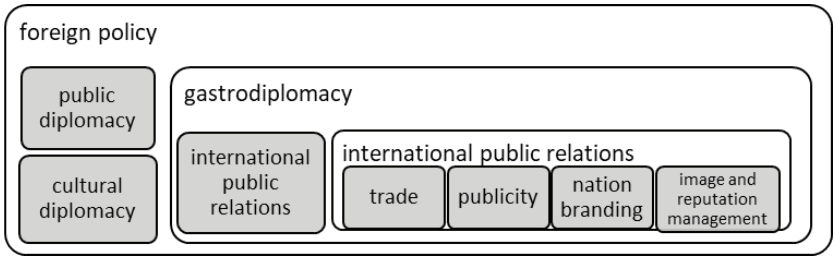

Figure 1. *Definition of gastrodiplomacy, relational framework and gains (Developed by the authors.)*

Gastrodiplomacy means that the state promotes agricultural production, economic investment and trade, tourism, food sector, and contributes to the national image and reputation, and the nation brand, while using the national culinary culture as a tool of public diplomacy. The diplomatic dinners of the state and the food aid provided to people suffering from starvation or disaster are also included in this framework. Although public diplomacy is carried out in two different frameworks, from the state to the public and from the public to the public, the state takes on the lead role in gastrodiplomacy activities. The reason for this is that although the practice of public diplomacy is attributed to non-state actors, it is necessary to act with an integrated strategy that is compatible with foreign policy. The real economy that will be contributing to the image of the nation and its reputation, will improve the economy whilst the results of the cultural sharing and interaction become apparent. This is because gastrodiplomacy embodies a cycle and value chain that ensures other people's learning of another country and its cuisine and demanding it. In order to explain and bring this value chain into view, it is necessary to decompose the concept of "gastrodiplomacy" and examine its components.

The physical subject of gastronomy includes everything edible, and its main goal is making sure individuals are fed. In our daily lives we grow, buy, process, enjoy or just consume food. When doing so, we make decisions that are affected by our lifestyle, identity, cultural heritage, aesthetic taste, and economic and social status. The concept of food culture, which is formed by these decisions, refers to a holistic structure that includes the types of food and the processes of their preparation, cooking, storage, consumption, and the beliefs and practices developed with space and equipment within the framework of food. Countries utilize food to promote their nation's culture, to create an image, globalize the food sector, influence foreign tourists, and establish relationships with other nations (Sokol, 2012, p.162). Practitioners or actors of gastrodiplomacy

can be government agencies, as well as food companies, farmers, food associations, famous chefs, tourist agencies, public relations agencies, public diplomacy practitioners, television programs, media organizations, local governments, non-governmental organizations at various levels, films and tv series, literary works or citizens.

In Figure 2 developed by the authors, components compatible with the multidisciplinary field of gastronomy are brought together. Located at the center, gastrodiplomacy creates a value chain with all other elements.

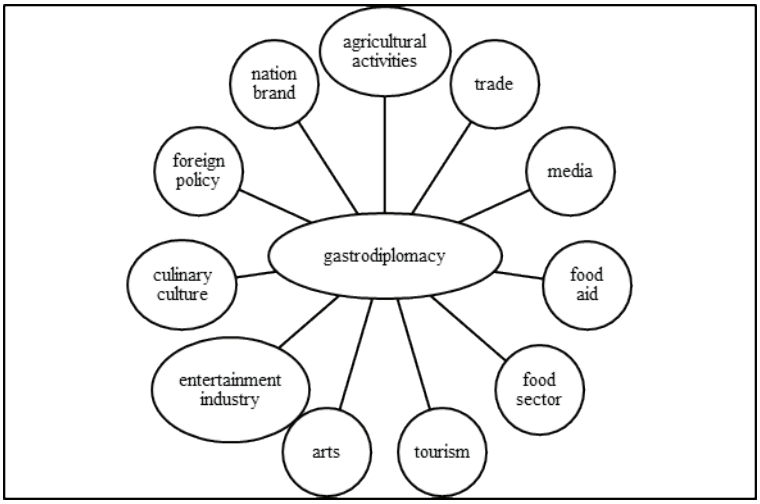

Figure 2. *Components of Gastrodiplomacy*
(Developed by the authors.)

According to the general view the states that are regarded as middle power, use gastrodiplomacy in creating areas of attraction that can pull in the global public. For the middle power countries that are not superpowers in economic, military and political terms and that have a little say in world politics, gastrodiplomacy means augmentation of visibility and empowerment of the nation brand. And for countries such as America, China or France the term refers to the strategies that will present different regional depths of food culture for America, China or France (Rockower 2014, p.15). In light of this, one of the prestigious achievements considered prominent in terms of gastrodiplomacy and publicity for a country is to be included in the UNESCO Intangible Cultural Heritage List with its food culture. Countries including Turkey are working for this privilege. It is necessary for the countries to present gastronomy's different dimensions and reveal its potential in terms of diplomacy in order to carry out an

efficient and effective gastrodiplomacy model using the cultural and gastronomic opportunities they have.

2. The Dimensions, Potential and Gains of Gastrodiplomacy

Utilizing food to share a country's national heritage is not only a way of benefitting from the public diplomacy potential of gastronomy but also a source of remarkable and attractive gains in fields of tourism, economic investment and soft power. Food culture is a term that expresses all the ideas and movements surrounding food. The actions of production and distribution, marketing processes, etiquette, table order, equipment and tools that express the processing of agriculture, environment and food by the industry are under the umbrella of the term as well (Albala, 2012, p. 7). There are numerous examples showing the political use of food and beverage in the history and practice of gastronomy and diplomacy (Constantinou, 1996, pp. 128-132). Studying the food as a symbol from the angles of political power, authority, and status, Ünsal talks about public banquets, where the institutional political authority is legitimized and analyzes the symbolism of food during the period of the 8th century Central Asian Steppe Empires to the Ottomans (2008, p.179). He argues that food as a symbol can reflect position, status and competition, or solidarity and togetherness, sincerity, formality, belonging and otherness (Appadurai, 1981, p.494) and the fact that this is confirmed by the long-established Turkish tradition. It could be observed that the political and social changes in Europe after the 18th century have set ground for the period that leads to the modern diplomacy, and that the French tradition and practices, which anticipated the establishment of permanent embassy institutions in other countries, have brought it to the present day thanks to the strongly connected French culture, diplomacy and French cuisine (Sokol, 2012, p.164). The rich potential of Gastrodiplomacy –which offers the opportunity to get closer to the people abroad, establish relationships with them and utilize the edible values of a country in order to enhance it in the field of public diplomacy, is shown in Table 1. The content put together by the authors below includes titles of gains, dimensions, and actors. The potentials of the four dimensions of Gastrodiplomacy, namely soft power, publicity dialogue and cooperation, identity and communication, economy, and trade are explained below.

Tablo 1. *Gastrodiplomacy's Multi-Dimensional Potential and Gains*

Dimensions	Gains	Actors
Soft Power	Contribution to the image and reputation of the country Contribution to the nation brand Prestige in the international arena Improvement in the attraction of the country	Government agencies, Industrial and Business Enterprises in Public and Private Sector Cultural institutions, Universities, Media
Publicity & Dialog & Collaborations	Cultural sharing (sister cities, mutual visits, events) Conflict solutions Cultural, economic and human cooperation Information, capital, human and product exchange Social responsibility projects	Government agencies Civil initiatives Cultural institutions, Universities Citizens Celebrities Media
Identitiy & Communication	Opportunity for cultural exchange Contribution to the nation brand Accomodating to changing and dynamic gastronomy elements Fusion Commercial gains Gastronomy tourism	Government agencies Citizens Media Cultural institutions
Economy & Trade	Encouragment and protection of local manufacturer Creation of the value chain Establishment of soft power Cultural (food) exchange Geographical indication, the notion of"terroir" and its gains Development of agricultural and food sector Gastronomic tourism Food export	Government agencies Industrial and Business Enterprises in Public and Private Sector Farmers and food manufacturers Exporters Citizens

2.1 The Potential of Gastrodiplomacy in Generating Soft Power

Culture, which is regarded as an element of soft power, produces soft power when it contains universal values and promotes interests and values (Nye, 2005, p.15). All food-based gastrodiplomacy activities, including the promotion of the national cuisine abroad, will provide economic

benefits as well as contributing to the use of soft power when designed with an integrated approach and a correct strategy, using public relations and marketing instruments. Those who argue that food-based discussions and agendas should be included in the field of political science due to the interconnected nature of food and humanity assert that food is vital for the survival of modern nation states, and point out that food sovereignty, politics, security and culture will ensure the power of food as a determinant (Brown, 2011, p.57). Within this context, it is possible to say that food complies with the concept of smart power, which refers to the situation where hard power is used along with soft power. Reynolds defines cultural propaganda as the act of consuming others' culture (including food) and acknowledging their existence through consuming. Exotic, different food of different cultures, cookbooks and restaurants are the initial tools of this propaganda. It succeeds when the local population "acknowledges the existence" of the food and consumes it. In terms of soft food power, this proves that eating habits, eating styles and food symbols do change, and that the host society has embraced them at every level from individual to state (2012, p.5-9).

2.2 Promotion, Dialogue and Cooperation Potential of Gastrodiplomacy

Dinner tables, which have the power to bring friends and foes together and transmit number of symbols at the same time, have been used as a cultural tool since ancient times. The public diplomacy model of Cowan and Arsenault "monologue, dialogue and cooperation", offers a structure that enables the actors and elements within the multi-disciplinary structure of gastrodiplomacy to work in sync. Regardless of how governments divide public diplomacy initiatives, it anticipates establishing relationships at all levels in order to obtain a reliable image in the eyes of foreign public (Cowan & Arsenault, 2008, 13). Within this context, it could be said that the current campaigns in the field of gastrodiplomacy demonstrate a monologic communication feature. These campaigns aim to establish a connection on behalf of the country in the international arena with state-sponsored and designed discourses and slogans. They are often supported by websites, press releases, purposeful speeches and events. Gastrodiplomacy projects carried out by Japan, Thailand, Peru, Malaysia, South Korea and Taiwan, which have been examined in detail in Zhang's work, are actually in the monologue layer, but have the grounds and opportunity for dialogue and cooperation layers due to the gastro-cultural elements they contain. In all of these campaigns, food culture is defined as a vital part of national culture, the phenomenon of cultural heritage is emphasized, and at the same time, it is aimed to make the export of

national food products possible and increase it (2015, pp. 7-10). Food culture is utilized in Turkey's communication activities as well thanks to its higher attraction value compared to the other cultural elements, its characteristic that enables it to be shared and used as a diplomatic tool, and it being an alternative of publicity. Examples of nation branding projects in Turkey could be "Turkey Home" and "Gastro Hunt" both of which are conducted under the auspices of the Ministry of Culture and Tourism (Digital Campaign Turkey: Turkey Home, 2015).

2.3 Identification and Communication Potential of Gastrodiplomacy

After a while the techniques for preparing comestibles and habits of consumption become a part of the system of differences, and after a while we begin to communicate through food (Barthes, 1997, p.26). The symbolic representation feature of food can be used to reflect identity, values and attitudes in the field of communication. Various processes of cooking or eating are also seen as distinctive identity elements. Food is a key that leads us to how we see ourselves or others and is closely linked to nationalism (Green, 2011, p. Xi). Food preferences reflect family stories, migrations, assimilation, resistance and changes over time, and are really telling in terms of group identity as well as personal identity (Almerico, 2014, p. 3). During the second half of the twentieth century it was predicted that globalization and the standard fast food systems would damage the food cultures and that hybrid cuisines would emerge. Global cuisine was defined as a homogeneous cuisine that consists of food that could be found anywhere in the world (Santich, 2000 as cited in, Scarpato and Daniele, 2003, p.297). Despite globalization and the domination of supranational organizations, national identities are still of great importantance for the vast majority. Unregarding and bigoted attitudes towards foreign cultures are still seen. The relationship between food, geography and cultural identity can be evaluated with a completely different understanding today.

According to Albala, the taste profiles of a cuisine can be copied by immigrants transporting certain ingredients and cooking techniques or by deliberate exportation as part of the culture. Generally, as a result of this circulation, tight-knit places and material relations emerge. *Chilie* and *guacomole* are Mexican just as tomato sauce and *mozzarella* are Italian, or ginger, garlic, and soy sauce can turn any dish into a Chinese one. Thanks to this simple union and sometimes international trade, easy travel of the cuisines are possible (2012, p.9).

In fact, gastrodiplomacy can be seen as a communication activity that aims for the circulation and export based on food in a planned way rather than accidental, and where concrete and intangible benefits are expected.

Ferguson emphasizes that when it comes to food there are two sides to intercultural exchange and that this is part of communication. The opening of a restaurant selling New York style sushi in Tokyo and the acceptance of *Philadelphia* and *California roll* as American style sushi exhibits the two-sides of the intercultural connection (2014, p.6).

2.4 Potential of Gastrodiplomacy to Create Economic and Commercial Relationships

For centuries, valuable foods and goods such as coffee, sugar, cocoa, and spices have stood up for the economic and political power they embody. The key element of the gastrodiplomacy campaigns examined in academic literature is the promotion of the export of food products, materials, equipment and labor used in promoting the country's cuisine in a economically rewarding way. It is the holistic understanding of promotion and diplomacy which the French diplomat Talleyrand started and the famous chefs Carême and Escoffier followed up, that has brought French cuisine to its current position. The fact that Escoffier used only French materials and labor when building luxury hotels in various parts of the world, his division of work in professional kitchens being used in French names to this day, and the international cuisine terminology being French shows that a systematic diplomacy movement is applied with a holistic approach. Soft power has a significant economic connotation to it as well. Developing an understanding of others' national culture affects not only international cooperation but also successful business and national branding.The Thai government's project to spread Thai restaurants all around the world is considered as a pioneer project among gastrodiplomacy campaigns and is a complete success. The project reveals the potential of building economic and commercial relations (Zhang, 2015, p.10).

Looking at the literature on gastrodiplomacy, it is observed that there is uncertainty about the content and components of gastrodiplomacy, and that the multi-dimensional structure of food production processes, political expansions and food culture are not taken into account. Gastrodiplomacy, which is positioned in the field of public diplomacy and international public relations, is presented in a model by the authors placing the dimensions of soft power, publicity, dialogue and cooperation, identity and communication, economy and trade mentioned in Table1, with the addition of pride as part of the nation brand on the vertical area, and legal regulation, leadership, support, marketing, sustainability on the horizontal in light of the researches in the relevant academic literature.

In the field of gastrodiplomacy represented in three dimensions, the gastrodiplomacy model, which aims to make the complex relationship

networks visible and aspires to be accepted as a generalizable road map, is explained in detail below:

3. The Gastrodiplomacy Model

Considering the fields where the gastrodiplomacy will be carried out and the actors, the existence of two different areas can be accepted, although they are not sharply separated. The first of these is the horizontal area in which the activities, actions and discourses of the state take place. The second is the vertical area where non-state civil actors and individuals operate (however still largely influenced by the state), where it is diverse and creative. This is the area in which gastrodiplomacy takes place. It is where gastrodiplomacy is developed, practiced and monitored. The areas considered as the sphere of the state and civil actors mentioned above are modelled horizontally and vertically, and different expansions are included in each step. The *"gastrodiplomacy model"* created with the keywords expressing the steps is basically demonstrated in Figure 4 by the authors. The nation brand, image and reputation of the country are closely related to the political, economic and cultural activities of the country in the international arena (Anholt, 2007, p.26). Gastronomic elements, civil and state-oriented initiatives, and actors all of which we will be using as storytellers, are in the vertical area where a delicate and sensitive communication activity is required. If the vertical area is the downstage the horizontal area is the backstage. In this invisible area behind the stage, lies the state actions such as policies and practices, projects, marketing activities, legal regulations, compliance with international regulations, financial support, pioneering, leadership mainly in the fields of tourism, agriculture, and food.

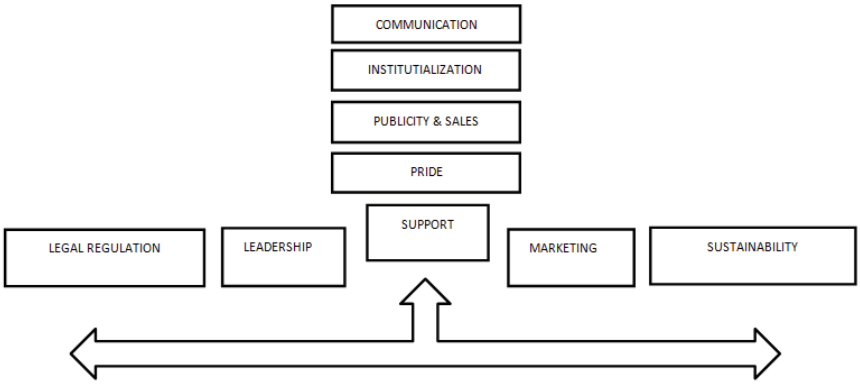

Figure 4 *Gastrodiplomacy Model*
(Developed by the authors.)

The vertical area and steps of the model are explained first, then the role and contexts of the state.

3.1 Vertical Area in the Gastrodiplomacy Model

Planning and executing an integrated communication strategy for the elements in the vertical area in the gastrodiplomacy model, at least at the institutional level, can positively contribute to the image and reputation of the country.

Pride; Recognizing, being proud and willing to promote one's own culture, structuring the gastronomic culture experience, bringing together the related sectors of gastronomy, presenting it as a part of the nation brand.

Promotion and Sales; Preserving, developing, making agricultural production sustainable and maintaining its biological diversity, ensuring the continuity of its relationship with the culinary culture, producing and selling quality, reliable and hygienic food products, increasing the numbers of country-themed restaurants and the promotion and sales of food products abroad, state support to the country-themed restaurants abroad, presenting the classical dishes of the culinary culture in a modern way with the emphasis on healthy nutrition, and promoting the products and techniques that reflect the non-static dynamic structure of the cuisine culture and using products and techniques that are compatible with the trends of the age are included in the second step.

Institutionalization; Securing the coordination between the actors present in the creation of communication and promotional arguments and materials, developing projects with an integrated perspective, managing the process from the field to the table correctly, scientifically studying and standardizing the original production techniques and general production techniques of the culinary culture, ensuring the cuisine's inclusion in curriculums of the schools abroad, training to foreign chefs, instructors and industry professionals on the cuisine of the country, building museums, preserving the local and traditional, geographical indication, preserving production standards, protecting raw materials.

Communication; Planning the next step of the carried out humanitarian aids, establishing sustainable connections with the encouragement of development cooperations, making sure of the communication that will contribute to the economy and reputation of the country, lobbying, kitchen ambassadors, promotional activities and reciprocal collaborations by the culinary culture institutes and food sector related structures targeting the foreign public, teaching in foreign cooking schools and training foreign chefs as culinary ambassadors and the gains of the related activity in the

field of communication, being involved in international federations of professional associations, effective participation in festivals and fairs, cooperation with the state and civil initiatives, effective use of social media, supporting works of art that focus on gastronomy (movies, books, tv programmes/series etc.), holidays centered around food and cooking classes.

Image and reputation; Supporting the flow of information with organizations that generate ideas, communicate and build an image, arousing interest, attracting attention, ensuring honest communication with existing features, strengthening the image discourse by transforming aids and collaborations within the framework of foreign policy into sustainable collaborations that have permanent benefits, producing and implementing rational policies and regulations in healthy and reliable food production, persuading foreign public, making projects that aspire to place the country among the top countries in agriculture permanently, are the activities of the field.

3.2 Horizontal Area in the Gastrodiplomacy Model

The steps of the horizontal area of the model, in which the state assumes the roles of determinant, supporter, supervisory and guide, are described in five stages.

Leadership; Representatives of sectors associated with gastrodiplomacy, such as agriculture, food, and tourism should be brought together for activities such as search conferences, workshops, and summit meetings where ideas and practices for the future are discussed. The current problems should be worked through so that the sectors improve.

Legal regulations; For the sectors that are present in the international arena (agriculture, food and tourism in specific), to produce, compete and survive at world standards, they must be subject to regulation and supervision with world-class legislation. Developing high quality standards is essential for products to be acknowledged in the international market. The state should pave the way for the relevant sectors through global collaborations and agreements in the international arena, and pioneer in order to benefit from protective regulations in the field of international law. It should work on developing and inspecting quality standards, making contemporary legal regulations, certification, being included in international codexes, and benefiting from protective regulations in international law.

Support; The state support is not only about finances. Support in areas such as planning, education, coordination, policy and strategy are really important as well. In every step defined in the horizontal area,

direct or indirect support of the state do, in fact, exist. At this level, financial support and educational support are mentioned. It is important to implement regulations that provide incentives for food, tourism and related sectors, facilitate product circulation and reduce financial burdens.

Marketing; In line with changing consumption habits and consumer expectations, the promotion of products and companies that will contribute directly or indirectly to the nation's brand and supporting their marketing activities is one of the constructive roles of the state in this area. The country's strong international brands are regarded to have a positive effect on both the nation's brand and its soft power.

Sustainability; In today's world where environmental problems are growing bigger and bigger, sustainability is in the area of interest of many non-governmental organizations as well as state institutions. Energy, food and agriculture are the specific issues that are tackled by local and international organizations and they are associated with the future of the world. It should be expected to affect the image and reputation of the country greatly.

4. Research Method

Based on the idea that gastrodiplomacy, which is considered a sub-branch of public diplomacy and cultural diplomacy, can be used in image and reputation management of the country within international public relations context, the following assumptions are made.

• Gastrodiplomacy uses the food-related cultural knowledge of the society in the establishment of the image and reputation of the nation through international public relations tools that are compatible with foreign policy.

• The contents of gastrodiplomacy include the nation brand, foreign aid, food culture, entertainment sector, tourism, agriculture, trade and its components. And together they form the value chain.

• Food should be recognized as a high priority political issue and should be approached seriously at all levels of the state.

• The State plays a key role in Gastrodiplomacy practice as a leader, legislator, supporter, and by creating sustainable conditions and communicating integrated.

• Humanitarian food aid to foreign countries is a soft power element to be evaluated within the scope of gastrodiplomacy.

Table 2 *Institutions Comprising the Sample Group and Their Managers With Whom In-Depth Interviews were Conducted*

The Institutions whose Websites were Analyzed	The Managers of the Institutions Interviewed in Detail
Republic of Turkey Ministry of Foreign Affairs	Mevlüt Çavuşoğlu - Republic of Turkey Minister of Foreign Affairs
Republic of Turkey Ministry of Culture and Tourism	Nadir Alpaslan - Republic of Turkey Deputy Minister of Culture and Tourism
Republic of Turkey Ministry of Agriculture and Forestry	The interview request was not responded.
Republic of Turkey Ministry of Trade	Emel Emirlioğlu - Deputy General Director of the General Directorate of Free Zones, Overseas Investment and Services on behalf of Republic of Turkey Ministry of Trade
Republic of Turkey Directorate of Communications	Ömer Faruk Tanrıverdi - Department Head of Public Diplomacy at Presidency of The Republic of Turkey Directorate of Communications
(TASAM) Turkish Asian Center for Strategic Studies	Süleyman Şensoy – Director of Turkish Asian Center for Strategic Studies
(TİM) Turkish Exporters' Assembly	Prof. Dr. Kerem Alkin - Secretary General at Turkish Exporters' Assembly
(TURYİD) The Turkish Restaurant & Entertainment Association	Kaya Demirer – Director of The Turkish Restaurant & Entertainment Association
(TAFED) Turkish Culinary Federation	Zeki Açıköz- Director of Turkish Culinary Federation
"*Yeni Anadolu Mutfağı*" Mikla, Mehmet Gürs	Mehmet Gürs - Chef, *Yeni Anadolu Mutfağı Mikla* Restaurant

A qualitative approach is used for this study. The work has started off with the assumptions to determine the roles and interests of government institutions, civil institutions and of the sectors that are regarded as the components of gastrodiplomacy- within the field of gastrodiplomacy. Then a literature research has been conducted. The qualitative approach not only provides the researcher the opportunity to explore and investigate complex issues in detail, but also helps to bring a detailed understanding (Creswell, 2013, p.48). The study includes the components of gastrodiplomacy, its public diplomacy potential and gains, its definition and a model. State instutions, non-governmental organizations and a chef as an opinion leader are conferred with as part of the research. The

personalities have been interviewed in detail, and the websites have been analyzed. With the help of the obtained data, the gastrodiplomacy model proposed by the authors is tested, discovered and offers suggestions. Table 2 shows the institutions that make up for this part of the research and their interviewed directors. It is aimed to understand whether gastrodiplomacy, which is defined as using the rooted cultural equipment of the society in connection with food in the construction of the image and reputation of the nation, is being used to its full potential by demonstrating the degree of awareness of the state institutions, non-governmental organizations and people who are considered to be opinion leaders in the society.

During the data collection process, there has been some hardship. Due to the transition to the Presidential system some institutions have been subject to examination which means changes within their organizational structures, duties and powers. Selecting permanent documents such as activity reports or strategy documents has been chosen as a way of attempting to overcome the hardship. The request for a meeting with the Republic of Turkey Ministry of Agriculture and Forestry has been left unanswered. However, the website documents are reviewed due to the strategic importance of the agricultural sector in economic and social terms. Meetings were held between May-November 2019 at the offices of the directors of the institutions, who agreed to meet face to face. Due to the intensity of the programs of the Ministry of Foreign Affairs and the Ministry of Trade, it was not possible to set up an appointment within a reasonable period of time. Meetings with the Ministry of Culture and Tourism and the Directorate of Communications were held face-to-face, but voice recording was not allowed, and written responses were sent after the meeting. The study includes 9 in-depth interviews and website analysis of 10 institutions.

4.1 Research Findings

The first stage of the data collection process consists of the examination of the documents on the corporate websites of the non-governmental representatives and the state institutions. Table 3 contains selected and analyzed documents on the websites of the institutions. In the selected documents, the relationship with the field of gastrodiplomacy are established within the frameworks of components such as food from soil to table, diplomacy, foreign policy, gastronomy, tourism, culture, food culture, trade, nation brand, marketing, promotion, communication, legislation, etc.

Table 3. *Institutions under Website Analysis and the Analyzed Pages / Documents*

Institution	Page/Document
Republic of Turkey Ministry of Foreign Affairs	Foreign policy page Turkey's International Development and Cooperation Activities Humanitarian Aid to Foreign Countries from Turkey International Organizations and Our Relations Overseas Promotion and Cultural Affairs Presidency of the Republic and Presidential System in 2019 Turkey's Enterprising and Humanitarian Foreign Policy
Republic of Turkey Ministry of Agriculture and Forestry	2019-2023 Strategic Plan 2019 Activity Report 2020 Performance Programmes
Republic of Turkey Ministry of Culture and Tourism	Tourism Strategy of Turkey 2023 Action Plan The Third National Culture Council The Third Tourism Council Turkish Culture Portal Turkish Tourism Portal Final report of gastronomic tourism commission
Republic of Turkey Ministry of Trade	Website Home Support TURQUALITY
Republic of Turkey Directorate of Communications	Standards and coordination work in public communication Turkish tv series workshop
Turkish Asian Center for Strategic Studies	Activity Report 2004-2019 Civil Global Programme Sectoral Diplomacy Channels Workshop Reports Innovation in Diplomacy Meeting Report The Strategic Vision of 21st Century, Public Diplomacy and Turkey's Public Diplomacy Opportunities
Turkish Exporters' Assembly	Activity Report New Vision New Roadmap, 2019 Export Report Türkiye Promotion Group

The Turkish Restaurant & Entertainment Association	Website Content Gastroeconomy Summit
Turkish Culinary Federation	Website Content
"*Yeni Anadolu Mutfağı*" Mikla, Chef Mehmet Gürs	*YEDİ* Conference *Yeni Anadolu Mutfağı*

The contents of the document listed in Table 3 have been evaluated in the context of their relationship with the gastrodiplomacy model, and the points where each institution appears strong on the model are summarized:

Republic of Turkey Ministry of Foreign Affairs' foreign policy consists of entrepreneur and humanitarian aspects and the elements of the image built within this context supports the definition of gastrodiplomacy. The documents draw the image of the country as a place of "generosity", where "the poor is fed", and where "powerless and helpless never stands alone". This definition is a statement that shapes the foreign policy, therefore puts the Ministry of Foreign Affairs in a dominant role within the gastrodiplomacy model as a determinant and image builder. It is concluded that **Republic of Turkey Ministry of Culture and Tourism** plays a major role in the publicity of the country. It can be said that ambitious and spot-on detections have been made and started to be implemented within the framework of the gastrodiplomacy model. The Ministry can be considered strongest in marketing and promotion. Pioneering summits, congresses, conferences and workshops related to the sectors that are relevant; and by doing so allowing the ideas and the projects for the future to emerge; the Ministry could be regarded just as strong in leadership, support and legal regulation. It could be considered as the institution that is the most aware of the power of Gastrodiplomacy in image and reputation management along with the Ministry of Foreign Affairs. As the authority in agricultural production and food control **Republic of Turkey Ministry of Agriculture and Forestry** is directly related to the physical existence and sustainability of food. The prominent statements in the mission and vision definition are: *"A global model in ecologic resource management, efficient and sustainable management of ecological resources with a perspective of development model, and ensuring economic security, food supply security, human health through ecological, plant and animal added value"*. The issue of food as a national security issue, which is underlined in the gastrodiplomacy model, can be seen in the strategy document of the ministry. According to the documents analyzed, the Ministry, which seems to be very strong in the field of production, efficient use of resources and sustainability-oriented leadership and support, seems to be having problems in terms of legal regulation and sustainability. **Republic of Turkey Ministry of Trade** appears to be strong in the area of support

in the gastrodiplomacy model. It stands out that the ministry can be more efficient in overcoming legal barriers and in the development of exports related to gastronomic products abroad, by coordinating with other non-governmental organizations and government agencies in support programs, with an emphasis on a holistic approach.The content in **Directorate of Communications**' website and documents very much reflects that they are very much familiar with the issue and open to scientific partnerships and leadership in communication. The expression of qualified representation and strengthening the Turkish brand, highlighted in its vision, can be regarded as marketing communication. Although there does not seem to be an activity involving gastrodiplomacy, it is believed that gastronomy and the variety of subjects related to it will put gastrodiplomacy in the agenda in the future. **The Turkish Asian Center for Strategic Studies (TASAM)** is a non-governmental institution and a think tank factory and the most important beneficiaries of its work are the state institutions. Its work is summarized in the context of the roles attributed to the state in the gastrodiplomacy model. In line with the purpose of the institution, it can be said that issues and initiatives specific to the field of gastrodiplomacy serve to strengthen the state in the fields of leadership, sustainability and legal regulation. In the in-depth interview with the Director of the Institution, the importance of legal regulation and supervision in all areas is particularly emphasized. The content and scope of the gastrodiplomacy model is strongly supported both in the documents on the website and in in-depth interviews by TASAM, which is an institution highly aware gastrodiplomacy components and related sectors and is very powerful in terms of its potential to affect state institutions. The activities of **Turkish Exporters' Assembly (TIM)** are held along with the Ministry of Trade. The Assembly features a Publiticy Group within, which is established by law and built on the purpose of promoting the country. It could be stated that its main function is support and marketing. The existence of a Publicity Group, which aims to augment the perception of Turkish goods and recognition of exporting sectors and to carry out communication and public relations activities, highlights the role of marketing. The fact that the Group's "The Committee of Promoting Turkish Gastronomy in World Markets" is put into operation can be seen as a positive development according to this vision. **The Turkish Restaurant & Entertainment Association (TURYID)** is the voice of a large part of the sector as a non-governmental organization in the gastrodiplomacy model, where gastrodiplomacy is experienced, developed and implemented, and its results are monitored. Together with TASAM, it should be regarded as the institution that has the most awareness for gastrodiplomacy. In the model, legal regulation and support and marketing expectation from the state shine out. However, approaching the issue with a focus on tourism

carries the risk of excluding the rich framework of gastrodiplomacy that is expected to be useful in some areas, in this context the institution must overcome this risk with its high awareness. Because high and fast income expectation can cause loss of time and money with short-term projects that are not properly worked into. **Turkish Culinary Federation (TAFED)**, is a non-governmental organization representing 23 different associations established regionally and appears as one of the actors of gastrodiplomacy, but on the other hand, it also shows a multi-part, divided organization in terms of those who practice the culinary profession. It is seen that the chefs, who are indispensable within the scope of the gastrodiplomacy model, should be properly integrated into the system and strengthen their positions by compatible training to the current. **Mehmet Gürs, Istanbul Food and Beverage Group Partner and Chef**, is seen as an opinion leader who makes valuable contributions to both horizontal and vertical areas of the gastrodiplomacy model (which is the focus of this study) with his craft and intellectual accumulation. With his intellectual knowledge, he presents an agenda other than the one focused on money and trade. Gürs states that he is trying to create the cuisine of tomorrow with old and innovative methods, without being traditionalist, but respecting traditional products still.

The second phase of the data collection process consists of nine in-depth interviews with the authorized senior managers of the institutions and the chef Mehmet Gürs. TASAM and TİM, as institutions with strong state connections, meet the research expectation in the vertical and horizontal dimensions of the gastrodiplomacy model. With the meetings held with TURYID President, TAFED Chairman of the Board and Chef Mehmet Gürs, it is aimed to reveal the awareness in the sectors included in the vertical dimension of the gastrodiplomacy model, to understand the expectations from the state and to determine the impact of the practices of the state. Thus, the gastrodiplomacy model can be displayed with the awareness levels of its practitioners on both horizontal and vertical planes.

The questions asked in the in-depth interviews are mentioned in order and the most striking answers are selected and conveyed:

Question 1 "Gastrodiplomacy is to use the cultural equipment of the society related to food in the management of the image and reputation of the nation by using international public relations tools that are compatible with the foreign policy of the country." Would you agree with this definition of gastrodiplomacy? What is your opinion on this matter? Does your institution have a policy on this issue?

6 participants agreed on the definition and the conceptual framework of gastrodiplomacy presented in the study, 2 participants partially agreed

and 1 participant refrained from answering. M. Çavuşoğlu said, *"Along with my Ministry; the Ministry of Culture and Tourism, the Ministry of Agriculture and Forestry and other official institutions and non-governmental organizations, have undertaken the task of preserving and promoting the rich cultural heritage of gastronomy in the Anatolian geography, where different cultures have come together and interacted for thousands of years. Making the gastronomic culture an indispensable element of our promotional policy is among our priorities both internally and globally* ". N. Alpaslan agrees, *"It is not possible to disagree with the view that gastrodiplomacy, which is the source of your question, should be used as a public relations tool to reflect the image and reputation of the nation."* Although M. Gürs and K. Demirer agree with the definition, they state that they do not agree with the statement "compatible with foreign policy".

Question 2 "Components of gastrodiplomacy: tourism, agriculture, food sector, foreign policy and food aid, entertainment sector, culinary culture, nation brand, trade and media together constitute a value chain. Would you agree with this? Which sectors do you think exist in the content of gastrodiplomacy? "

7 participants answered the question to determine the components of the gastrodiplomacy and the sectors within by approving the components, 1 participant did not answer, and 1 participant partially agreed, stating that they did not think of humanitarian aid in the scope and that there was a difference between gastronomy and survival. M. Gürs *"[...] survival, there are hundreds of millions of people who do not get enough food a day. They go to sleep, starvinging, every evening sleeps hungry evening. Gastronomy is not this playground."* M. Çavuşoğlu states that all sectors mentioned in the question are components of gastrodiplomacy, which have important places in the publicity of the country's culture and are seen as tools of public diplomacy. He contributes by adding municipalities and non-governmental organizations to these components. It is concluded that the effective use of gastrodiplomacy is possible when all these sectors work in sync and that this would effect Turkey's soft power positively. S. Şensoy says *"Yes, actually many fields are involved in this. Culture, tourism, food – and of-course agriculture, animal husbandry- foreign policy, international relations, Turkey's development assistance in terms of food, and as you mentioned -the entertainment industry."* He also considers gastronomy as a niche area with potential in terms of promotion.

Question 3 "Would you agree with the statement 'Food is a high priority political issue, and the state should take it seriously'? Why?"

7 participants agreed to the statement in the 3rd question which was asked to determine the importance and depth of the food-state relationship in the gastrodiplomacy model, confirming that food is an issue that the state should address with priority and seriously. 2 participants are considered to have no opinion. Gürs associates the issues of applying the standards that are valid in the world in agriculture, the ability of the villager that is producing to make a living by staying in their village and the sustainability of this with the fact that food is a political issue. S. Şensoy said, *"I agree, food is an issue of national security, and in the world - we have been saying this for about 10 years - it is moving towards becoming a more strategic sector than energy. In other words, the future of the world is both economically and politically in agriculture and food."* He emphasizes that food is as important as the defense industry in terms of both the sustainability of the nation and its effectiveness in the world.

Question 4 "In gastrodiplomacy practices, the state plays a key role as a leader, a legislator, by supporting it, by creating sustainable conditions and by making integrated communication. What is your opinion on this detection? Would you agree that the role of the state should be decisive and guiding?

Responding positively to the question asked to understand the food-state relationship and the role of the state in the gastrodiplomacy model, 7 participants confirm that they play a key role in gastrodiplomacy studies, 1 participant partially approves, 1 participant is considered to have no idea. M. Çavuşoğlu mentions the activities of the Ministry of Foreign Affairs and especially the Ministry of Culture and Tourism on this issue and emphasizes the work of the Foreign Affairs in this regard in words of "problem solving, orientating and coordinating". While answering this question, Şensoy emphasizes the issue of regulation and argues that the state can reveal the potential in cases where the regulation is done well and that the gastronomy issue is similar to it. He suggests that food, agriculture and livestock sector, service sector, defense industry and tourism are determined as the locomotive sectors, and all of them are in relationship with gastronomy. Demirer states that the state should be *"embracing"* first by collecting all the information in itself, before determining the correct strategies then *"pioneer"* implementing the decisions made. He partially expresses a negative opinion on the state's *guidance; taking on the responsibility of leading the way*, saying *"We will show the state which path should be paved and it will pave that path."* Gürs approaches positively to the guiding role of the state by saying "*yes in the ideal scenario, the state should be the guide".*

Question 5 "Can you evaluate the relevance of gastrodiplomacy to humanitarian aid, soft power and foreign policy? Do you think gastrodiplomacy is an element of soft power?

7 participants who agreed confirm that the gastrodiplomacy is about humanitarian aid, foreign policy and soft power. 1 participant stated that they partially agreed by saying that gastrodiplomacy could be soft power in the "ideal scenario", and 1 participant is regarded to have no opinion on the matter as their answer did not answer the question

M. Çavuşoğlu said, "*I think that gastrodiplomacy is an important part of our country's soft power and an important element of our public diplomacy. In this context, I would like to state that TIKA's aid projects abroad and the activities supported by small and medium-sized enterprises in the food sector in regions of hunger and disaster in areas such as equipment, seed supply and job training are effective activities that contribute to our soft power."* emphasizes the content of gastrodiplomacy presented in the study. Şensoy considers gastrodiplomacy as "*one of the most important instruments of the soft power ecosystem".* On the other hand, Gürs states that he believes that gastrodiplomacy is an element of soft power in the *"ideal world".*

In the context of evaluating the diplomatic potential of gastronomy, it is accepted that gastrodiplomacy is a communication tool that provides rich content in terms of publicity, dialogue and cooperation, as well as its economic and commercial dimensions that serve the reputation and soft power of the country. It is accepted by the majority of the participants that tourism, agriculture, food sector, foreign policy, food aid, entertainment sector, culinary culture, nation brand, trade and media, which are determined as the components of the gastrodiplomacy, form a value chain together, and municipalities and non-governmental organizations are among these components. The necessity to turn to niche areas such as gastronomy is confirmed. By doing so, there will be no need to spend the high budgets that are put in the promotion of the country currently.

As well as being an issue of national security, food as an element of positive image and a component that will positively support the reputation of the nation is also important and the area of interest of gastrodiplomacy. It is necessary to associate the issues of image, reputation and trust building with safe food. In gastrodiplomacy studies, the most important function of the state, which is expressed by the participants and stands out according to the result obtained from the website content, seems to be the support function. This support is seen to emerge as policies and projects, making regulations by removing legal barriers, by financial support, education, transfer of knowledge, international leadership, guidance, protection,

protection and eventually promotion and marketing, and it is approved by the participants.

In the narrative of the gastrodiplomacy model, "the state that grows and nurtures everything, that is grown on the land and represent the gastronomy culture, by creating conditions suitable for its growth and development, and ultimately, distributes it to appropriate channels and watches it raise economic results" state functions explained by the participants" is confirmed by the functions of the state that the participants mention. It is possible to say that state institutions, each working with a different agenda, have connections with the subject within the scope of their powers and duties determined by laws and have a certain level of awareness if not high.

5. Gastrodiplomacy Proposals for Turkish Public Diplomacy

Being a reliable, high quality and sustainable food producing and exporting country would undoubtedly contribute to Turkey's nation brand and reputation. Turkey has to make the food heritage sustainable first. During the in-depth meeting with TASAM President, the importance of legal regulations and inspections were emphasized, and it was stated that the deficiencies in food legislation and inspection problems should be solved. In this context, standard problems related to local products should be solved by being added to the legislation, and production, packaging and distribution conditions should be established in accordance with national and international food codexes.

The people living in Turkey must be aware of the gastronomic values of the country. They need to learn, and own them proudly. Turkey should make the food a smart power, the projects of support and cooperation part of Ministry of Foreign Affair and TIKA's work should continue. For the food to become highly profitable, appropriate sectoral policies should be established in line with Turkey's political and economic ones and the long-termed supply of a product that is allowed to grow in Turkey's climate and geographical conditions should be considered as permanence and sustainability in the global market.

Geographical indication, participation in international networks and cooperation should be increased. Bolder actions should be taken. Local food products might be ordinary for the people living in Turkey, but it is necessary to remember that they might be exotic for those living in other countries. Therefore, local products should be used as an element of attraction. Another remarkable detail in the gastrodiplomacy projects of countries that have achieved worldwide success is that they have been

accepted into the cuisine of other countries with their own food products. When a completely foreign product is presented in a format that is recognizable by the people, it may be possible for it to be embraced and its demand to increase. There are dozens of varieties of Turkish agricultural products exported to other countries. The target countries should be determined and methods as such should put into practice.

The institutions which are connected to different Ministries and the Presidency of the Republic and in charge of promoting Turkey and its products in the global market and managing the communications, work according to their own agenda and diary. An integrated communication exercise with shared messages on the key issues at least, has to be given a thought. It is stated by the sector that the general policy of the state, its distant stance to alcohol consumption and practices accordingly create difficulties in the tourism sector, and a solution is required. Although gastrodiplomacy is not at the center of their proposals, this issue is constantly mentioned as a priority issue by the food and beverage sector, which considers gastronomy in conjunction with tourism. Although there doesn't seem to be an easy solution to the matter, it is necessary to find a common ground with the right rules and regulations within the framework of common interests. Tourism is a crucial source of income for Turkey. The high budget spared for the sector requires the representatives of it to be heard out.

Most of the activities referred to as gastronomy are centered around tourism, where the sustainable existence of food is ignored. The awareness on the use of food related cultural elements in image and reputation establishment and management should be raised in government and the related sectors. Disputes on the titles such as Turkish Cuisine, Anatolian Cuisine, regional / local cuisine should be solved as they create certain incomprehensibility. This affects the publicity of the country badly which feeds a lot on the cuisine.

It is seen that there is a rich diversity in institutionalization in gastronomy, especially in terms of non-governmental organizations and other non-state organizations. It should be ensured that culture is protected, passed on to the younger generations, and protected with pride. It would make a real difference if the Turkish cuisine finds more place in vocational training in secondary school, high school and university, and even taught in foreign cooking schools. The prestige of teaching Turkish cuisine in a foreign school and the value it will add to the country's brand should be considered.

It is necessary to be more selective of who gets to use the government supports and resources. The state plays a dominant role other than in

support and marketing, although they are seen as its most important function. Therefore, it should have policies on how to evaluate the components of gastrodiplomacy. Tourism-oriented studies aim to use local stories and values as tourism products. It should always be remembered that the brand is a promise given to the consumer, and it should not be set out with concepts and discourses that have not been established. It is observed that the locals in Turkey are inefficient when it comes to the knowledge of their gastronomic values, therefore unable to see the benefits and achievements in this regard. The elimination of this negativity caused by a bunch of reasons can be eliminated with long-term education and the rise of awareness.

During the process of establishing the model and inserting the obtained data in it then interpteting the positives and negatives, it is concluded that Turkey can use Gastrodiplomacy in an effective way. Suggestion are made accordingly. Although gastrodiplomacy is positioned within public diplomacy studies, it appears to be linked to many actors within the state and has a close relationship with state policies. The state should have a macro perspective and plan on economy, culture, tourism, country brand, and gastronomy should be included in it.

6. Conclusion

It is seen that the operating actors in the field of public diplomacy can obtain gains in economy, trade, communication, publicity, dialogue, and cooperation by using food-related cultural elements and food, and the soft power that will rise from these gains will benefit the country. Among the communication and collaborations that result in these gains are cultural, economic and humanitarian cooperation between countries, sister cities, mutual visits, product and human exchanges, gastronomy tourism, social responsibility projects, food exports, trade connections, protection of local producers, creation of a value chain, agriculture and development of the food sector.

Food is not only a basic need and a matter of national security, but also an item of joy and consumption, an identity element, a communication material and finally an economic value. All its potential should be utilized. In order to benefit from the gains of gastrodiplomacy, systematic, integrated and strategic planning is required in the process from the field to the table, from the production of food to its consumption. When talking about the use of cultural elements related to food in the management of image and reputation, it is necessary to mention the framework that constitutes the most fundamental cultural element, the food culture. Accordingly, agriculture, environmental conditions, production,

distribution, marketing, food industry, goods and equipment, beliefs are included in this framework.

In the process from the field to the last consumption, Turkish culinary culture communicates with some abstract and concrete aspects. The Turkish culinary culture, which has preserved its dynamism throughout history and has the diversity to respond to today's concerns, beliefs and fashions regarding nutrition, is waiting to be utilized into a smart power factor. Here, it should be stated once again that the framework that constitutes the food culture starts from agriculture, that is, from production, from the physical existence of the food. When strategizing and planning for future in Turkey and determining the sectors that will take the country forward, attention is drawn on the importance of animal husbandry and food industry. The matter of obtaining food is even considered as a national security issue.

Gastrodiplomacy, positioned in the field of public diplomacy, is presented as a tool and approach in image and reputation management, but has deep roots in its foundation. Gastrodiplomacy can come to life with all its components in an environment where a state structure that makes laws, controls and supports it with a holistic understanding, produces policies and sectoral strategies and leads it. Before consuming the tomorrows of Turkey, an approach that puts food to the first lines should be adopted and so that the future can benefit from it.

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Chapter 4

GLOBALIZATION AND REDEFINING INTELLECTUAL PROPERTY RIGHTS IN THE ENTERTAINMENT INDUSTRY WITH EMPHASIS ON CGI BASED DIGITAL ADVERTISING

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*Bu çalışma Marmara Üniversitesi Avrupa Araştırmaları Enstitüsü bünyesinde 1998 yılında Deniz Ilgaz danışmanlığında tamamlanan 81400 numaralı "Intellectual Property Rights in the European Union and the Evolution of Trademarks Together with the Exhaustion of Rights Principle in Scope of the Customs Union" başlıklı yüksek lisans tezinden üretilmiştir.

Intellectual Property refers directly to the creations of the intellect that have an explicit commercial value. For celebrities this may include their copyrighted artistic works, together with symbols, names, and images that are associated with them (Drake, 2007:219). During the period between the baby-boom of the 60s through 90s, the focus on globalization shifted the concerns on intellectual property rights with the developments in the conventions held in Rome, Paris, and Berne respectively as will be discussed in the following pages.

The World Trade Organization (WTO), which was founded after the Uruguay Round negotiations (1986-1994), took active part in designing new lines for intellectual property. As globalization process gained momentum, intellectual property attained more and more importance. The TRIPs Agreement (April 1994), which required WTO Members to provide standards for the protection of intellectual property rights (patents, copyrights, trade secrets, trademarks, geographical indications…), brought along new perspectives on the protective rights on intellectual property. However, these rights are being questioned once again in today's high-tech world where endless possibilities of the digital realm demand further adaptation and possibly some new regulations on intellectual property rights.

Today there are many online applications which enable people to create computer generated images (CGI), digital twins, humanoid characters, and even artificial intelligence enhanced metahumans in the cyber realm. With the new technologies, departed celebrities can be resurrected from their graves, and give concerts to millions as holograms… And on the other hand, non-living metahuman characters may become number one influencers, get followed by millions of people, and be regarded as 'living', and be addressed in online conversations even though they are man-made …

Pimentel and Vinkers (2021), define virtual humans as: "*Automated, three-dimensional agents which can serve as realistic embodiments for social interactions with human users*". Relevant literature suggests that many users' cognitive responses changes when the interaction with a virtual human elicits a sense of co-presence. At this point one may say that the sense of being "together" is still important for humans even if the one you are 'together' with is not actually alive…

Morie (1998:31) states that one may mark 1980s as the start-up for CGI in film with some epic examples as the Luke Skywalker hologram used in 'Star Wars: Return of the Jedi', and the digitally shaped stained-glass knight in 'Young Sherlock Holmes'. Today, CGI is evolving into

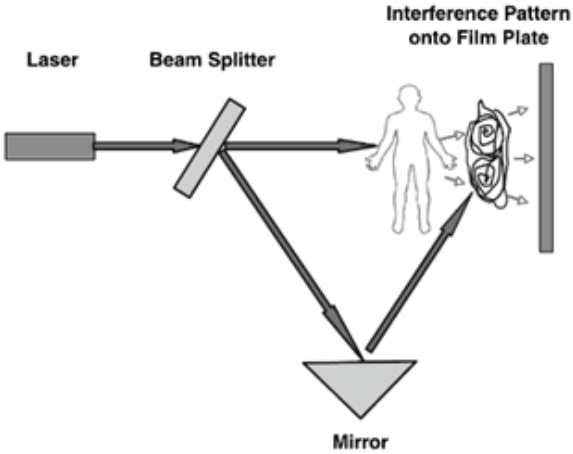
much advanced technologies that anyone can come across with and interact in their daily lives.

Even with some serious political figures, one may witness the use of these new technologies. For example: Jacinda Ardem, the prime minister of New Zealand, gave the opening speech for a technology conference as a hologram (Please check Figure:1 below for the QR code leading to the video), or one may come across with lifeless CGI influencers (e.g: Lil Miquela, Bermuda, Shudu…) acting like real people in social media, or even long departed real life celebrities resurrecting from the dead in CGI movies, advertisements, or singing to millions through their holograms (Please check Table 1 for relative examples).

Figure 1: *Jacinda Ardem's hologram*

But what really is a hologram? Spencer-Hall (2012:56), defines a hologram as the spectral appearance of computerized bodies through unpretentious, and unconfirmed, artificial ways, The first hologram was made by Dennis Gabor in 1948, however it was not until the late 1960s when Emmett Leith upscaled it to three dimensional objects.

Figure 2: *Creating the hologram (Kelly, 2021:31)*



Since the 1970s, many physicists have been exploring the unforeseen possibility that the whole universe itself is a hologram. As one may clearly see, after the invent of 3D and holographic projection, discerning what is and what isn't real has become more trickier (Kelly, 2011:37).

Watching Michael Jackson perform his moon dance on the stage long after he was departed, or seeing other deceased celebrities almost 'alive' has amazed the 'real life' audience many times up until now… Post-mortem, money generating celebrity holograms as such, have led to serious concerns on intellectual property infringements, together with ethics in the digital world.

After holographic stage appearances of deceased stars like Tupac and Michael Jackson, and almost 'real' CGI advertisements made for departed celebrities (Please scan the QR codes included in table 1 to watch the related advertisements), some globally famous names have banned the usage of their trademarks after their death. The departed stars like Robin Williams and Lauren Bacall can be given as distinguished pioneers.

These celebrities were very keen on protecting their personal brands in the digital realm even after their death, probably as an indirect reaction to a $500 million legal dispute over the legacy of Michael Jackson, his post-mortem holographic stage performances put forth by companies like Sony Music, his CGI inserts in films, and advertisements …

Another important breach of industrial property rights was seen in the Tupac case: In April 2012, the rapper Tupac Shakur, who was murdered in 1996, "performed" on stage at Coachella with the help of his "Pac-O-Gram" (Spencer-Hall, 2012:56). The organizers profited from the postmortem stage appearance, but would Tupac agree to this if he was alive?

As a precaution for such disputes, Robin Williams' Trust restricted the use and exploitation of the actor's rights of publicity for 25 years after his death. As a result, it is guaranteed by law that the audience will not be seeing any advertisements featuring Williams until the end of 2039. Williams owned three federal trademark registrations in his name before his death. These can be listed as follows (Stites & Harbison PLLC, 2020): Registration for entertainment services (U.S. Reg. No. 3,738,977); Registration for clothing items (U.S. Reg. No. 3,657,702); Registration for his audio and visual recordings (U.S. Reg. No. 3,751,283).

Movie star Lauren Bacall also had several trademark applications as such before her death:

1. For fragrance products (U.S. Reg. No. 85966179)

2. For watches, jewelry, etc... (U.S. Reg. No. 85966187)

3. For stationary items (U.S. Reg. No. 85966191)

4. For clothing (U.S. Reg. No. 85966198)

5. For entertainment services (U.S. Reg. No. 85966199)

Such trademark registrations are helping the families, and/or other right owners, of Robin Williams and Lauren Bacall to effectively protect the stars' post-mortem rights and legacies.

Table 1: CGI Post-Mortem Advertisements

BRAND	ARTIST	ADVERTISEMENT	QR Code
Volkwagen Golf GTI	Gene Kelly	Dancing to the remix of 'Singing in the Rain'	
Coors Light	John Wayne	Coming alive in a western pub for some drinks.	
Nissin Noodles	F. Mercury	Singing in Japanese in 2011.	
Dirt Devil Vacuum	Fred Astaire	bringing his famous dance from his 1951 film back to life.	
Orville Redenbacher Company	O. Redenbacher	The original founder of the company and his CGI twin acting together.	
Galaxy Dove	A. Hepburn	Movie star seems to be stuck in an Italian bus with some heavenly ice cream.	

McCormick (2019: 49) states that the law of defamation, including libel and slander, and the right of privacy, have developed to protect reputational interests. But what about the celebrity's commercial interests as such in this digitalized 'global' village?

IMPACT OF GLOBALIZATION ON INTELLECTUAL PROPERTY RIGHTS

The 1990's marked the time when companies all around the world had to start thinking and acting globally. Previous restrictions of time and distance began to disappear with the advent of the internet, and communication changed all together with social media. Faster communication was followed by an increase in global financial flows (Kotler, 1991:400).

Globalization has never been a straightforward phenomenon; it has become a well-known concept to describe a range of new trends and powerful forces changing the world we live. As an economic phenomenon, globalization was a huge jump from a world of national economies to a global economy in which distinct national economies were subsumed and reshaped into the system by international processes. In this "Global Village", production was mutual, and capital flew freely and instantly internationally (Thompson & Hirst, 1992:360).

The logic of globalization gave a central role to private agents and market forces. Consequently, this led to pressures for a reduction in state intervention (Jenkins, 1991:43). The dominant figure was not the state anymore; it was the global force that attracted the distinct states to the international arena where the national borders were becoming diminished.

International cooperation amongst nations brought about new opportunities for progress, such as sharing policy strategies together or working side by side to establish rules of the game for new information highways or financial systems... Afterall, international trade was nothing new. At the beginning, international commerce involved a small number of items like fabric, food, and metals. Gradually this expanded to include more goods. The globalization of the world economy was reflected in the sudden growth of world trade and investment. As of today, the "Quality" of a product is still being presented to the world customer with the brand of that specific product. Products like Gucci purses, Pierre Cardin shirts, and McDonald's hamburgers which are developed in one country are finding enthusiastic acceptance in other countries (Kotler, 1991:400).

The growth of international trade in goods and services, the expansion of concurrent communication and extensive information exchange can be considered as the most salient features of globalization (Keyder, 1996: l25). At this point, protection of Intellectual Property Rights became important for the countries of the "Globalizing" world.

INTELLECTUAL PROPERTY RIGHTS

Intellectual Property is private, intangible property in the form of monopoly rights granted by, or at least protected by, the state to certain parties in return for their contribution to the society at large. To encourage people to be inventive, states provide incentives to them through the protection of the fruits of their endeavors and one of the best ways to achieve this is granting their intellectual property rights. By protecting the intellectual property rights, inventiveness and creativity are rewarded (Keyder, 1996: 126-131).

Mostly used approach is for the state to grant the inventor or creator the exclusive right to exploit his work for a limited time in return for the public disclosure of the invention or creation.

Industrial Property has been protected under the **Paris Convention** of 1883 for years. In international terms, trademarks are protected by this convention which was revised in Stockholm in 1967 arid was amended in 1979. The level of intellectual property protection granted is a major concern to investors in determining where and how to invest to ensure that the benefit of the products they have developed is reaped by themselves and not unjustly by third parties, who have not incurred any of the costs.

Many modem day products sell for a price that reflects high research costs, some brilliant idea, or huge spending on branding. High development costs as such, coupled with low production costs, make these products vulnerable to piracy. Consequently, the link between the protection of intellectual property rights and international trade has become highly visible (Okutan, 1996:110).

Intellectual property includes all exclusive rights to intellectual creations. It encompasses two types of rights: industrial property, which includes patents (inventions), utility model, design, trademarks, and copyright, which includes artistic and literary property.

1. Industrial Property Rights: Protection of industrial property rights in a country is an important factor in encouraging the invention activities, increasing foreign investment, application of new technologies, and supporting national and international trade There are 4 forms of industrial property, and they can be listed as follows:

- **Patents (Inventions):** Like most forms of intellectual property law, patent law is facing a whole new range of materials to protect and it is of major importance in the world trading system (Keyder, 1996: 185). A patent is issued to protect novel inventions which surpass the state of the art and which are applicable in the industry (TPI, 1997: 14). An invention

is a novel idea which permits in practice the solution of a specific problem in technology. Examples might be anything from a new gadget to a hybrid vegetable obtained by genetic engineering.

- **Utility Model:** Creation of novel technical ideas utilizing the rules of nature can be considered as utility models. Utility model protection provides registered protection to inventions which do not meet the inventiveness standard required for a patent (Keyder, 1996:185).

- **Design:** Design means the entirety of the various features such as lines, texture, sound, elasticity, shape, color, or combination of those in an article which produces an aesthetic impression on the sense of sight. 1O to 15year protection is possible and renewal in every 5 years is possible. An industrial design is the ornamental aspect of a useful article. This ornamental aspect may be constituted by elements which are three dimensional (The shape of the article) or two dimensional (Lines, designs, colors) but must not be dictated solely or essentially by technical or functional considerations (Arıkan, 1996:35). To be eligible for protection, industrial designs must be original and must be registered.

- **Trademark:** A Trademark is either a word, phrase, symbol or design, or combination of words, phrases, logo or designs which identify and distinguish the source of the goods and services of one party from those of others. Trademarks identify products or services as coming from a particular source (TPI, 1997: 10). In short, a trademark is necessary for distinguishing one's goods from those of another person. Some familiar examples include "Coca Cola", "Sony", and "IBM"... The following may not be registered, or if registered are liable to be declared invalid (Bainbridge, 1992: 359-360): Trademarks which are devoid of any distinctive character; Trademarks which are liable to mislead or are contrary to public policy or accepted principles of morality; Trademarks which are of such a nature as to deceive the public; a trademark which is identical with or similar to an earlier trade mark, where the goods or services which it represents are identical with or similar to those represented by the earlier trademark.

2.Copyrights: Copyright law refers, as its name would indicate, to the right to copy. Copyright only protects the expression of an idea, not the idea itself. Others are free to create similar works as long as they do so independently and with their own efforts. in other words, different than patent, copyright does not create a monopoly. As a concept it deals with the right to derive economic benefit from one's creative efforts. These rights include (Keyder, 1996:147):

- Author's personal Rights: Right to release, to indicate authors real name, and to maintain identity of his work.
- Author's property rights: Right to broadcast, to distribute, and to produce derivative works.
- Neighboring rights: Stage performances, phonographic records, and broadcasting.

The TRIPS Agreement is a minimum standards agreement which allows members to provide more extensive measures of protection of Intellectual Property if they so wish. Members are left free to determine the appropriate method of implementing the provisions of the Agreement within their own system and practice (O'Regan, 1995:3). The objectives of "TRIPS" is cleared in Article 7 of the Agreement, entitled "Objectives", according to which the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations (Heald, 1996:637). TRIPS Agreement provides three main transition periods which can be listed as follows (Özdemir, 2008:91):

Period 1 (1995-2000): Implementation period where countries took their own local measures for adaptation.

Period 2 (2000–2005): Transition period, which made it possible to postpone some provisions up to 5 more years when necessary.

Period 3 (2005-2016): Extended transition for the least-developed countries (LDCs), which allowed for further extension if necessary.

CONCLUSION

Although some celebrities like Deepak Chopra willingly create their AI digital twins in mobile applications as their 'digital extensions', rights of publicity started to constitute many ethical questions throughout the high-tech, digitalized world of today. Bartholomew (2011:310), state that the privacy rights were meant to protect mostly the dignitary interests, and not only economic ones. As a result, it is not surprising to see remedies in the present privacy cases causing scenes of emotional distress even after the post-mortem period. Personality rights of the celebrities concern the personal right to control the commercial use of his/her image, name, likeness, or other aspects of identity, and consequently any post-mortem profit making attempt can also be considered as kind of exploitation the celebrities are subjected to in the modern world (McCormick, 2019:46).

As social media evolves, the personal rights of every individual becomes in question. "*What will happen to your social media account after you die?*" becomes a legitimate question… Will your pictures in the cloud feed the AI in facial recognition or help with the development of robotics? Would you want that? And isn't this something that needs to be attended by all humans online?

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Chapter 5

DIGITALIZATION OF IDENTITY IN THE CONTEXT OF GOFFMAN'S SELF-PRESENTATION THEORY

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1) SELF PRESENTATION, IDENTITY BUILDING AND DIGITALIZATION

Thanks to the developing and transforming communication technologies, the environments where the self is presented and the identity is built are changing. Identity building processes transformed with digitalization are the main subject of the study. The issue of digitalization of identity is addressed in the context of Goffman's work, Self Presentation in Everyday Life, an important work in self-presentation. In this part of the study, self-presentation, identity building and digitalization processes are explained.

1.1) SELF PRESENTATION

The subject of self, which is handled by many scientific disciplines such as psychology, sociology and social psychology, is one of the oldest curiosities of human beings. Topics such as how a self is formed, whether the individual has a wholistic self or not, are the main areas of discussion in the science of psychology. In this section, there are three subtitles that are considered necessary for understanding the self-presentation process. Firstly, the concept of self is explained through various definitions. Then the differences of the concepts of identity and self, which are frequently used interchangeably, are conveyed. Finally, the self-presentation theory of Goffman, which forms the theoretical basis of the study, is explained together with its terminology.

1.1.1) Self Definitions

It is accepted that the self, which historical origin is based on Aristoteles, started to be conceptualized by Descartes' sentence "Cogito, ergo sum." The introduction of the concept into the scientific framework accured in the 19th century. The subject of self was first mentioned in the science of psychology with William James' The Principles of Psychology. The book is divided into two as knowing self and known self. It is stated that the known self should be the subject of science (Bacanlı, 1997: 5). James states that the self - like the person's body, features, things he/she has, friends and family - covers everything he/she can think of as his/her own. In its broadest sense, self is expressed as the sum of everything that a person thinks belongs to him/her (Akçagöz, 2017: 15).

There are many different self definitions in the literature. Türk Dil Kurumu (TDK-The Turkish Language Association) defines self as "self presence, personality, what makes it itself, self, personality". In the Turkish Language Association's Main Dictionary of Science and Art Terms, the self is "consciousness about what the individual is, what he/

she wants to be and how he/she is recognized by his/her environment" and "personality part, the essence of which is only the social relations of the human, which allows the individual to consciously differentiate the facts around him/her" (http://www.tdk.org).

In general terms, self is defined as "the feeling of a person as a unique integrity, separate from everyone and everything, and being aware of this " (Budak, 2005). It is also stated that the self has a view or general opinion about the individual. Self is a concept about how the person is recognized by his/her environment. Sociologists like Cooley and Mead also stated that the self emerged with socialization (Tan, 1970: 3-16). Another definition was made as follows, "Self is a power that individuals watch, judge, evaluate, and manage their behavior within themselves. It is, their beliefs about their personality and their way of seeing themselves. Self, which includes the individual's attitudes and beliefs about himself/herself, includes his/her views on what he/she is, as well as his/her views on what he/she should be and what he/she wants to be." (Öz, 2004: 94). Self is not a static concept, but a dynamic process shaped by the interaction of society and the individual. Mark W. Baldwin used the expressions regarding the dynamic structure of the self: "what the individual thinks about himself/herself is an ongoing process and the concept of self is the product of the dialectical relationship between the individual and his environment" (Baldwin, 1992: 461-484).

According to James, who made the definition of the concept for the first time in the science of psychology, the self has 3 aspects. These; is material, social and spiritual self. Material self is defined as everything physically belonging to the individual (such as body, clothes, car). When any of these substances that the individual identifies with changes, the material self also changes. The position of the individual in his/her social life determines the social self. Social self is shaped according to the different behavior patterns required by each environment. Different attitudes in the family, in the business environment and during friends meetings lead to the formation of different social selves. Spiritual self is made up of individuals' self-perception and evaluation methods. The self-evaluations about the self are called spiritual self (Akgül, 2020: 224).

Two different concepts developed within the framework of self concept are real self and ideal self. The real self indicates the way in which one truly perceives himself/herself. The ideal self expresses how one wants to be, not how the person is. Individuals mostly prefer to follow their ideal selves, not their real selves. They present themselves according to their ideal self-characteristics (Akgül, 2020: 224) . Within the context of the concept of self-presentation, the ideal self is usually presented, not the real self. The self defined in different ways emerges as a dynamic

process that develops in interaction with the social environment of the individual and covers all his/her own opinions (Akgül, 2020: 224). The differences of self and identity, which are often confused and used in the same meaning, are presented in the next part.

1.1.2) Identity and Self Differentiation

In this section, it is aimed to reveal the semantic differences of the concepts of identity and self, which are frequently used interchangeably. The Big Turkish Dictionary published by the Turkish Language Association defines the concept of identity as "the whole of the signs, qualities and features that are specific to the human being as a social entity, the whole of the conditions that make someone a particular person" and "the whole of the features that are used to identify any object".

Since it is a concept used by different scientific disciplines like self, identity has various definitions in the literature. Bourdieu explains the concept as, "the product of the opening ceremony of an institution that determines the entrance to social life, the object of all successive institutionalization and naming rites, which are occurs through social identity" (Bourdieu, 1994: 86-87). In order to emphasize the sociality of the concept, the following statements were used; "these acts of attribution, which are mostly public and ceremonial and under the control of the state, are also strict markers. that is, they apply to the whole world and develop a true official definition of the social essence established by the social order through the proper name" (Bourdieu, 1994: 87).

Identity is seen as a part of culture and it is stated that identity is a prerequisite for an individual to exist (Tok, 2003: 121).

In the definition of identity, the emphasis made differently from the self is generally; related to social concepts such as state, rulership, nation or religion. Unlike self, it is thought that identity is shaped entirely in social processes. Identity is handled in three ways, such as self, personal, social and cultural. The concept that is closely related to self and frequently used instead of self is personal identity. Personal identity can be defined briefly as the individual is aware of who he/she is. Social and cultural identities, on the other hand, require interpersonal interaction, unlike self and personal identity.

Hortaçsu relates identity the question "Who am I?" and relates self the question "What kind of person am I?". He states that self is a concept that distinguishes the individual from other individuals, and identity is a concept that positions the individual in society. He states that identity is a dynamic concept such as self, and individuals may have many identities (Hortaçsu, 2007: 11-14).

Mutlu also mentions that since individuals cannot be perceived with a single identity any more, it is wrong to reduce different areas of existence (during identification) to a single area (Mutlu, 2004: 172).

The difference between the concepts is briefly that one is more social and the other is more individual. The fact that both concepts have many layers causes them to be confused. In this section, it is only aimed to indicate the differences between identity and self. Identity theories and identity building are explained later in the study.

1.1.3) Goffman and the Theory of Self Presentation

The Presentation of Self in Everyday Life, one of the first works to treat the concept of self-presentation as the main subject, was written in 1959 by Erving Goffman. In the work, conceptualization, which is currently called dramaturgical/theatrical approach, has been developed. In theory, life is compared to a theater play. It is stated that the behaviors of the individuals are the roles played on the theater stage.

Goffman's theory of self-presentation contains many concepts in itself. For this reason, it is thought that it will be useful to define the concepts before the theory is explained. Performance, which is the basic concept of the theory, is defined as "All the activities that a person performs for a period of time in front of a certain set of audiences and which have some effect on the audiences". The concept of the showcase/front stage is expressed as "Normally, the part of the performance of the person working in a general and invariable manner to describe the situation to the audiences". The concepts used by Goffman about the concept of showcase, which are called standard items of the showcase, are set and personal showcase. Set includes "furniture, decor, physical design, and other background arrangements that provide the environment and scene for human activities that are constantly displayed in front, inside or above". Goffman says that a set exists geographically in a specific place. Individuals who want to use a certain set in their performances must go to the set that suits their performance. It is stated that events such as funeral corteges and official parades are exceptional events where the set is in motion. The set refers to the generally fixed part of the showcase, while it refers to the characteristics of the player (the performing individual) that is always with him. Many features such as gender, age, racial characteristics, height, posture, facial expressions, body expressions and speech patterns are called parts of the personal showcase. Stimulants that make up the personal showcase are divided into two as appearance and attitude. Appearance refers to the stimuli that presently give information about the social status of the player. The concept of attitude is used to indicate the stimuli that give information about the role that the player expects to play.

Except for exceptional cases, expected that there is a consistency between appearance and attitude (Goffman, 2009: 33-36).

People often need to learn about someone when someone new enters their environment. First of all, the curious ones the issues related to the social self of the person such as "the general social and economic situation of that person, how he sees himself, his attitude towards his environment, whether he is a master at work and whether he is reliable" (Goffman, 2009: 15). Goffman mentions logical reasons for this curiosity, which is often considered unnecessary. This information about the person conveys to the observers what they should expect from that person and what that person can expect from them.

The concepts of real self and ideal self, which are in connection with the self, can be associated with the concepts of front stage and backstage in Goffman's study. The front of the stage is defined as the area observed by the audience, where the actor performs. In front of the stage, the actor should stay away from all kinds of behavior patterns that are not suitable for his/her social position. The area where the actors can be themselves, and where they do not have to perform, is defined as backstage. It is also referred to as the preparation area for the performances to be displayed before the stage. Actors feel comfortable and safe in this area. The front of the stage is the area where the ideal self is performed and the back of the stage is the area where the real self is seen.

In his work, Goffman cites a famous passage of William James, which allows the concept of self to be placed on a scientific basis:

"*...in practice, we can say that the more groups of people the person cares about his/her view, the more different social selves he/she has. In general, he/she shows a different face to each of these groups. While most young people behave well in front of their parents and teachers, they swear and sell like a pirate among their 'hard' peers. We show ourselves differently to our children and friends in the club, our customers and the workers we work with, our own bosses and our close friends.* "(Goffman, 2009: 57).

Based on this statement, it is said that individuals create the impression that the routine they are currently performing is their only routine. It is claimed that individuals always present self-presentation. It is mentioned that even when the individual refuses to communicate, it emits certain expressions. This situation gives rise to the concepts of given impression and spread impression. While the given impression is defined as deliberate communication or the behaviors exhibited, the individual does not need to take any deliberate action in the spread impression. "Players can stop expressing themselves, but the expression cannot stop spreading" sentence states that the individual will perform willingly or unwillingly (Goffman, 2009: 109).

It is stated that any social position is not something to be owned first and exhibited after. It is stated that the social position should become a behavior pattern with continuity and consistency. Social position is defined as something that needs to be constantly staged and made real in this way. The entire staging process of the social position leads us to self-presentation. Goffman gives an example from Sartre:

"*Let's take this waitress in the cafe. His movements are quick and tense, a little too attentive, a little too fast. He approaches his customers very quickly. He leans forward a little too much; his voice and eyes reflect a very attentive expression to the customer's order. Finally, while returning to order, he imitates a robotic stiff walk, on the other hand, he carries his tray with the indifference of a tightrope walker by keeping it in an unstable and fragile balance with constant light hand movements. All his behavior feels like a play to us. He attempted to line up his actions, as if each were a mechanism, one controlling the other; his hand gestures, even his voice look like a mechanism; he gives himself the quickness and cruel speed of things. He plays games, entertains himself. But what's playing? We find an explanation without having to watch for a long time: He plays a waiter working in the cafe. There is nothing that surprises us. This is a kind of exploration and research game.The child plays with his body to discover him and see what he can do; the waiter in the cafe plays with his own situation to realize*." (Sartre, 1956: 59).

In summary, Goffman's theory of self-presentation is based on the idea that social life is like a theater play. Individuals participating in social life are likened to actors performing on the theater stage. The performances that are constantly displayed in daily life are called the self-presentation of the individual. Goffman also mentions the spreading impression displayed involuntarily as well as the impression given by the individual voluntarily. During the self presentation, the audience, where the performance is displayed, is placed in a central location. It is thought that each performance is shaped according to the characteristics of the audience. The sum of the different performances offered to different audiences constitutes the individual's presented self. Goffman states that individuals cannot stop expressing impression even if they stop expressing themselves. He explains the self-presentation not only as an intentional act but also as a self-forming process in social life.

1.2) IDENTITY BUILDING

Identity, which is seen as an unchanging / stationary phenomenon in the modern period, has become a constantly developing process in the postmodern period. Identity, defined as a constantly changing process, is built through self-presentations. In this part, firstly, the concept of identity

is defined and various identity theories are explained. Then, identity building processes that are carried out through social media are explained.

1.2.1) Theories of Identity

The concept of identity previously defined in the study includes both individual and social elements. In the literature, there are psychological approaches that address the individual aspect of identity and sociological approaches that address the social aspect of identity. Identity is individually associated with a person's definition of "I am this person." On the social level, identity turns into "I am this person in this group." Within the framework of psychological and sociological approaches, identity theories have been created on various topics such as the formation process of identity, social origins of identity or identity-behavior relationship. In this section, Erikson's psychosocial development theory, sociology based identity theory and social identity theory are explained.

Erik Erikson created his psychosocial development theory by adding the social environment to Freud's psychoanalytic theory. It is stated in the theory that the society should support the individual for the healthy development of the individual's sense of identity. Ego determines and regulates the behavior of the individual. Society is decisive in the development of ego (Erikson, 1968: 218). According to the theory, every stage of life has its own subject. If the subject of a stage can be resolved, the individual can enter the next stage equipped. Identity is the subject of the adolescence period. At this stage, the individual makes some choices (such as profession, religious belief, political view, sexuality). The process of creating identity consists of these choices (Hortaçsu, 2007: 19).

On the other hand, the theory of identity based on sociology expresses the symbolic interactionism approach that Goffman is also included. In this theory, self and social structure are handled together in interaction. It is known that the approach was created by Charles Cooley and Herbert Mead. In theory, identities are determined by relationships. Hortaçsu explains this situation as follows:

"*The social positions of individuals and their roles in various groups of which they are members affect their identity. Identity includes behavior, skills and equipment, in addition to meanings of roles. For example, a mother is expected to have certain knowledge, skills, intuition and works that she can do about childcare and upbringing. According to this view, identities cannot be considered independently of relationships. In other words, without husband a wife, mother without a child, without a subordinate, their top roles are unthinkable. The roles that make up the identity are considered in relationships, and relationships are considered*

in groups. For example, husband and wife roles are formed within the marriage relationship, and the marriage relationship occurs within the extended family or social environment." (Hortaçsu, 2007: 21).

According to the theory, the identity of individuals is shaped by the social environment in which they are located. The individual may have a different identity in the social environment, as much as the number of groups he/she is in. It is argued that identity is formed in the mutual interaction of individual and social processes.

The first theory explained is based on psychology, the second theory is based on sociology. Social identity theory, the third theory to be considered, is a social psychology based approach. The theory was developed in the 1970s by Tajfel and Turner. According to the social identity theory, individuals tend to see themselves as part of a community. Individuals identify themselves with a group and perceive other people as others. The theory states that individuals perceive the group members to which they belong more positively than the members of other groups. Theory; It deals with the relations according to the characteristics such as social position differences, transitions between groups and deals with the concept of identity according to these relations. It is thought that individuals have negative thoughts towards the members of the groups that they do not feel belong to. In this approach, individuals define themselves with certain social groups and describe themselves with the characteristics of these groups. As a result of the process of identification with the group, social identity becomes more important than individual identity.

1.2.2) Identity Building and Social Media

Identity that occurs and develops in social interactions is not a static phenomenon but a built process. Identity is structured by the features of the time and space in which it occurs. For this reason, identity is affected by many variables such as the social position of the individual, the economic and cultural characteristics of the communities in which they live, and lifestyle.

Bauman states that stationary structures identified with the modern period were solved in the postmodern period. He expresses that identity is not a static phenomenon but a dynamic process in the postmodern period (Deniz and Hülür, 2016: 24). The consumer society, which has developed due to globalization, has also changed the concept of identity. In this way, social identity has become a more variable and short-lived concept which has been formed with constantly changing symbols. While the individual associates his daily self with consumption, he/she started building his/her social identity through social media (Özdemir, 2015: 113).

New media technologies have provided an environment where individuals can take on different identities. Virtual identities created through the internet can be easily changed. Internet technology, which is thought to offer the individual the opportunity to experience many different identities, has led to the change of the identity building process (Akgül, 2017: 667) .

In studies on self-presentation in online environments in the literature, generally anonymous self-presentation is focused on. It has been concluded that individuals often play roles and display behaviors and discourses that are incompatible with their real personality. In the first studies dealing with anonymous identity building on the internet, it was concluded that individuals do not behave like themselves in such environments (Uçar, 2015: 314). Along with the technological developments, identity building in the internet environment has continued to change. There were anonymous users on Web 1.0 platforms. With the transition to Web 2.0, the anonymous self has been replaced by a copy of the real self. In the Web 1.0 period, individuals constructed their anonymous self completely different from their real self. In the current situation, it is seen that they generally reflect the real identity of individuals in social networks. It is known that even basic features such as gender, physical feature and age are presented differently in online platforms used in the past (Akgül, 2017: 668). In today's online environments, virtual versions of real identities can be seen.

With the social media become widespread in Web 2.0 platforms, individuals exist in this environment with their real identity. However, the fact that they use some of their real personal characteristics in these channels does not mean that they exhibit their true self. Robins says that thanks to new communication technologies, it is possible to reach a virtual life that does not actually exist by escaping the boundaries of real life (Robins, 1999: 49). Individuals who exist in the virtual environment with their real names, real physical features and real social positions also display an example of ideal self-presentation through the things they consume. Individuals convey their artificial images with their clothes, the physical environment they are in, the photos they take/share and thus they aim to gain appreciation (Akıner and Küngerü, 2015: 139).

In non-anonymous online medias, identity building is carried out with shared photos, articles, likes, videos or place notifications. It is the ideal self performed on these platforms not the real self. When social media is associated with Goffman's self-presentation theory, the profiles in social media tools appear like the front stage. In this way, individuals exhibit the person they want to be, not they really are.

The passage given by Professor Dr. Mukadder Çakır supports this view:

"*Announced the celebrations on social media before meetings, cocktails, trips, invitations, weddings or ceremonies, and as the first thing done after the celebrations putting the photos of these ceremonies on social media has become a ritual. Trips, meals, exhibitions, parties, memorial days, resorts, restaurants, etc. images of places and memories are a continuous part of this continuous show. For this reason, 250 million users tag their location on Facebook every month. Now, putting the image taken in the destination on social media and joining a trip or invitation to publish that image on social media are mixed processes or even displaced. In the photos shared on social media by individual users, people are generally very happy, they went to beautiful places, they are very crowded. Their interest in real life is doubtful. Are these images real, unreal or false? Many people ask this question to themselves and they also know the answer.But nobody says it, doesn't explain it.* " (Çakır, 2013: 63).

Binark says that the individual uses different cultural elements to display his ideal self as his real identity. Language usage styles, music consumption and leisure activities are some of them (Binark, 2001: 75). It is thought that social networks allow individuals to easily reach the identities they want. Lasch states that the identities currently created through social networks are those that can be "adopted and removed as if changing clothes" (Lasch, 1984: 38).

The concept of identity, which has a relatively static structure in the period of modernism, has become a dynamic process with postmodernism. In the primitive periods of the internet, called Web 1.0, identity building was carried out through anonymous selves. As a result of the studies carried out about this period, it has been observed that anonymous selves are far from reflecting the real identity of individuals. A virtual extension of real identities is presented in social media channels that showed updduring the Web 2.0 era and currently in use. These identities, which have many features common to real identity, aim to display the ideal self. Daily life practices (such as leisure activities, places to visit, food eaten) displayed with materials such as photography, video, and text that are constantly shared through social media channels serve to present the ideal self. Thanks to social media channels, the process of building the identity takes place faster and changes faster.

1.3) DIGITALIZATION

Digitalization means that the data are displayed on a screen in an electronic environment. With the new communication technologies

coming into use, digitalization has become a concept associated with identity. In this section, digitalization is defined firstly and new media created by digitalization is described. Secondly, the concept of digital identity is explained.

1.3.1) The New Media Created by Digitalization

In the Big Turkish Dictionary published by the Turkish Language Association, the digital dictionary is defined as follows: "Electronic display of data on one screen" and "Numerical". It is defined as the conversion of all kinds of information into bits (0 and 1) in various formats such as data, sound, music, text, and photographs, or translation of these informations to the computer language with the help of microprocessors.

Postmodernism caused the transformation of economic activities in the last quarter of the 20th century. The globalization of the economy has led to the rapid development of technology. The development of technology and the opening of computers to the use of civilian people have caused radical changes in communication technologies. The introduction of computer technology in various fields and the introduction of the internet have enabled rapid circulation of information. Thanks to digitalization, individuals can communicate with each other without any distance. Individuals can generate data and quickly circulate it. Digitalization has led to transformation not only in the forms of communication, but also in many areas such as working conditions, access to information and lifestyles. The relationship between digitalization and new media is clearly stated in the quoted passage:

"*The objects in the new communication medium are expressed numerically. Objects of different structures that are switched from analog to digital or produced in digital become transitive within each other. At this point, the new communication environment; Interactive communication areas where digital based individuals are in an active role. Communication environment is one of the basic areas where human thought is shaped. This area is updated with mass media shaped by technological developments. This update requires the addition of the word 'new'... In short, the new communication environment is a communication area where a high-speed interaction with different departments takes place with a structure based on the digital coding system.*" (Yengin, 2012: 352).

Binark also defines new media as "communication forms such as mobile phones, game consoles, computer, internet environment, Ipod or handheld databases, which have digital coding system and enable users to interact differently from traditional media such as newspapers, radio and television" (Binark, 2007: 21).

Online access based on digital coding system offers many new possibilities different from existing communication technologies. The new possibilities offered led digital communication technologies to be named as new media. The concept of new media, which expresses the process since the computer was put into use, also includes social media. The features of the new media are expressed as digitality, interactivity, virtuality and networking. The main feature of social media is that it can be shared with other users simultaneously. "Social media is a group of internet-based applications that build on the technological and ideological foundations of Web 2.0 and allow the creation and sharing of user-generated content." (Kaplan and Haenlein, 2010: 59-68). Van Dijk says that social media is something that connects both individual and social worlds. He defines social media as internet applications that allow sharing of things such as messages, photos, videos, music, information.

New media and social media are socialize users in a virtual way while individualizing users. Social media enables individuals to produce data and turn themselves into data. Individuals present themselves on social media and see this as a natural part of everyday life. Individuals who express themselves to others through social media build identities in these channels and present these identities. The concept of digital identity, built on new media, is discussed in the next section.

1.3.2) The Concept of Digital Identity

In the digital environment, the existence of the individual is in a virtual form, not physical, and identity is becoming a virtual process. Digital identity is thought to be a combination of consciously ordered information. In a social sense, identity is shaped by the characteristics of the individual seen by others. Self which an individual's have shown (consciously or unconsciously) is the presented self. Combining the self presented attributes explains the process of building an identity. This statement explains that identity building is a social process. In the process of identity building, some features of the individual are brought to the fore in order to create the desired effect in others. Or the impression is created that there are features that do not exist in the individual. The consistent/wholistic process of building an identity, requires continuity of the properties that are consciously exhibited to others. In the pre-new media period, the audience of the self-presentation was the physical social environment of the individual. The new media has enabled the identity building process to take place in a wider area. Apart from the physical social environment of the individual, it has become possible to present his self to the virtual social environment. Individuals in any social network

produce online content in identity building processes. Individuals build their digital identities on the content they produce.

Digital identities can be changed or rearranged much more easily than real identities. The physical and social environment that is presented in its real form also plays an important role in the construction of non-virtual identity (Akgül, 2017: 669). The digital environment also enables the current environment to be displayed in an unrealistic way. Having a different social environment than what you actually have can be easily experienced through digital media. Individuals can build different digital identities and experience these identities without encountering any risk factors.

It is stated that digital identity has dimensions such as digital communication, digital literacy, digital commerce, digital ethics, digital rights, digital health, digital security (Çubukçu and Bayzan, 2013: 149). In digital channels, users have the freedom to build their identity the way they want it, real or false. In social media channels; digital identity is built through place notifications, shared photos, videos and likes. It is determined through the feedback received that the direction of identity building processes should be continued.

Briefly, digital identity can be defined as an identity built through virtual data in digital environment. This may be a reflection of real identity in the virtual environment or a completely fictional identity. It is the individual's decision to decide which identity to use for the identity built by presenting the real self, the ideal self, or a false self.

2) PRESENTATION OF THE SELF IN DIGITAL ENVIRONMENT AND REBUILD OF IDENTITY

New communication technologies developed in digital environment have become an important part of the individual's daily life. Individuals have expanded their circles in which they perform and have started to present their selves in social media. This has led to the transformation of identity building processes. In this section, current studies on self-presentation on social media are mentioned. Later, Facebook was handled as a social media channel where self-presentation was realized.

2.1) CURRENT STUDIES ON SELF PRESENTATION IN SOCIAL MEDIA

Studies on online self-presentation in the pre-social media period examine the identity building processes of anonymous users. As a result of the studies, it was found that anonymous users were either acting completely or exhibiting abnormal behaviors. In environments such as

the chat room, it was concluded that individuals tend to act like someone else (Uçar, 2015: 314).

Social media channels emerging during the Web 2.0 era have placed the idea that the online self is a virtual extension of the real self. Anonymous users, seen on Web 1.0 platforms, became real individuals (even if relatively) in the Web 2.0 era. In social media such as Facebook, Twitter, Instagram, which are widely used in the current situation, individuals mostly exist with their real identities.

In a study on social media -conducted by Nevfel BOZ in 2012- the following results were reached:

"*When we look at the rate of not using pictures, we see that only 0.5% of the youth do not use pictures. This almost non-existent rate shows how important pictures and visual elements are for digital identity and self presentation… Young people have stated that they mostly explain their personal beliefs and ideas on Facebook, they offer information about themselves and they sincerely present who they are.*" (Boz, 2012: 89-96).

In another study conducted by Burcu KARAOĞLU in 2015 about self-presentation on social media;

"*All variables from the age, motivation, expectations of the online and offline world, sociocultural and economic status to personality traits play an important role in the person's reasons for opening a social media account and their usage practices ... The fact that social media has turned into a habitus that allows people to communicate with their social environment rather than spending free time and needs special time during the day ... Users are afraid of sharing outside their current location and social roles, and deleting it when they think that their sharing may get a negative reaction by others.*" findings have been reached (Karaoğlu, 2015: 161-165).

As a result of another study on identity building in social media conducted by Begüm ODACI in 2018;

"*Most of the participants stated that they mostly do not find their real-life identity consistent with the identity that their friends are trying to create through location notifications. The participants' friends put on their masks in Goffman's words and perform against the audience in front of the stage. Some of these people make place notifications in places they do not go, and some of them are selective about place notifications*." statements are used (Odacı, 2018: 110-111).

Since the first studies on self-presentation in the digital environment included the presentation of anonymous identities, they did not give

healthy results about self presentation. People who have the ability to build anonymously totally unrealistic identities in such digital media have generally preferred to create identities that are incompatible with reality. It is thought that abnormal behaviors are exhibited through these anonymous identities, which are thought to not reflect the real or ideal selves of individuals. Social media channels that emerged during the Web 2.0 era are the channels where individuals usually build their identities through their selves. These channels, in which real selves or ideal selves are presented, require a consistent and wholistic identity-building process. For this reason, it is thought that the self presentation examinations carried out on social media channels gave a closer result to the reality. In the next section, self presentations are examined through Facebook, which is selected as a social media channel.

2.2) NEW IDENTITY CREATED WITH SELF PRESENTATIONS: FACEBOOK EXAMPLE

It is thought that it would be beneficial to explain some basic information about Facebook before the explanation of identity building processes through self-presentations on Facebook. Facebook is one of the short time he was able to have an impact on a global scale and most used social media channels in Turkey. It was founded by Mark Zuckerberg, Dustin Moskovitz, Chris Hughes and Eduardo Saverin. The social network, which was founded on February 4, 2004 under the name "thefacebook.com", is known to only accept the membership of Harvard University students in its initial phase. The site, whose name was changed to Facebook in 2005, reached 6 million in 2005, from 1 million members in 2004. In 2006, it was made available to anyone who has any e-mail address (Toprak et al., 2009: 37-38).

The categories on which identity building takes place on Facebook are; profile photo, basic information, business and education, contact information and family. The profile photo is considered to have an important place in identity building, as it is the most common or most visible category. Basic information section; It consists of gender, date of birth, interests, relationship status, languages, religion and political fields of view and contains very important information about real identity. Gender and date of birth appear as mandatory fields, and other fields are filled at the request of the user. Religion and political viewpoints, which are generally avoided in everyday life, are explained in general on the Facebook profiles. The information given in the field of work and education carries clues about which cities the individual lives/works and his/her financial status. In the contact information section, information such as phone number, open address, and other social network addresses

can be added optionally. Finally, the family section provides the explain of the current relationship status of the user. I have no relationship, I have a relationship, I am engaged, I am married, I have a complicated relationship, I have a free relationship, widow, we are separated with my wife, divorced, this section is the virtual counterpart of the information provided by engagement and wedding rings in daily life (Sütlüoğlu, 2014: 33-39).

Since this work is based on Goffman's work, The Presentation of Self in Everyday Life, Facebook is examined within the framework of Goffman's theory. When Facebook is taken into consideration, the concept that stands out in theory is the "personal showcase" that is described in the conceptual framework. Personal showcase; consists of elements such as gender, age, racial characteristics; height and appearance; posture; speech patterns; facial expressions and individuals send certain signs to their environment using these elements. Goffman states that racial characteristics and gender are more stable and facial expressions, posture and speech patterns are more variable. In addition, Goffman states that the first and most curious features about the newly introduced individual are; its position in the society, whether it is successful in business, economic status, relations with its environment and whether it is reliable (Goffman, 2012: 35).

A significant part of these individual features are available directly on Facebook profiles. This directly transferred information also enables inferences about features not included in the profile. Gender and date of birth characteristics that fall under the mandatory fields are examplary. Even if this information is received by the network, it can be closed to other users if it is desired to be kept secret by the user. However, these features can still be estimated from profile photos or posts, and complete confidentiality cannot be guaranteed. These features, which are predictable even if they are not desired to be shown, are proves the Goffman's this sentence; "Players can stop expressing themselves, but the expressions cannot stop 'spreading'." (Goffman, 2009: 109).

In a 2008 study on identity building processes on Facebook, it was concluded that individuals used certain strategies while exhibiting their identity on Facebook. It is stated that the photographs are visual elements of the identity building process. It is also stated that the photographs give information about many different features in the personal showcase. It is stated that the categories of likes (TV programs, movies, books, music, etc.) are presented identities more clearly than the photos present (Zhao et al., 2008: 1824-1826).

Briefly, the preferences, suggestions or likes of others are taken into consideration in the identity building processes carried out on Facebook and the identity building process is mostly shaped accordingly. Users often share real identity information, they share/use photos that are compatible with their real physical image. Although this situation presents a more realistic image compared to the identity building process of anonymous selves, it is not the real self built, but the ideal self. Users often state that they prefer to use photos that they call 'the most beautiful' or 'the most remarkable'. This shows that what is presented is not the real but the ideal self.

In the last part of the study, the transformation that is thought to be going through the digitalised identity and the process of building identity is explained in the context of Goffman's self-presentation theory.

3) POSSIBLE TRANSFORMATION OF DIGITALIZING IDENTITY IN THE CONTEXT OF THE SELF PRESENTATION THEORY

At the basis of the self-presentation theory discussed in the study; there is the idea that individuals voluntarily or involuntarily spread impressions/images around them. Individuals disseminate data about themselves whenever they encounter others. These data are spread without the need for any communication activities; the individual's age, posture, appearance or even refusal to communicate. In the theory that Goffman likens life to a theater stage, individuals are called actors. Behaviors in which players are voluntarily or involuntarily are also called performance. In this approach, the concept that is seen as the biggest aid in performance is the concept of "personal showcase". The personal showcase includes all kinds of features that the individual will reflect on others. The personal showcase, which is an important part of the self-presentation, has changed with the development of communication technologies. Physically, real-world self-presentations which is exist before the use of internet technology have been moved to the virtual environment with the internet. Individuals are now building their digital identities through self-presentation on the virtual environment. Rapid change of technology also changes communication practices. Changing communication practices cause to change individuals ways of introducing themselves to others.

It is known that the presentation of self, which can only be done physically in real environment before the invention of television, has changed with television. The self-presentation, which can be realized on television, was mostly realized by reflecting the ideal selves of the people who are called as "celebrities" to the screens. The inurement of internet

technology gave ordinary individuals the opportunity to reflect their self on the screen. Self-presentation was carried out through anonymous identities in the early days of the internet. With the transition to web 2.0, it changed shape and became a virtual reflection of real identities. It is expected that the self-presentation, which has changed itself even with the development of internet technologies, will transform again and again with the upcoming technological innovations.

With the inurement of the internet, self-presentation has been moved to the virtual environment and identity has been digitized. All personal features are displayed on digital media, it is enough to write their names on a search engine in order to reach the basic features of individuals. Personal web pages are digital personal showcases that are opened to the use of people they do not know, with the consent of the individual. Profiles in social media channels are showcases that -the target audience may be restricted at the request of the user- are presented to a relatively narrow audience. Individuals have to display their own showcases in order to reach the pleasure of seeing others or to watch the showcases of others on the social media platforms they participate in to say 'I am here too'. Individuals shape their own showcases according to their enjoyments and opinions, as well as their personal enjoyments.

Currently, large-scale businesses and successful brands place great emphasis on communication through social media. They try to demonstrate a wholistic performance to their target group and build a consistent digital identity through social media channels. The fact that even institutional structures prefer to build an identity through these channels indicates the central position we give to the new media in our daily lives. The inclusion of the new media in daily life practices has caused the change of the identity building process. It is usual to see individuals or institutions that build their identities on digital platforms.

In the near future; technologies such as big data, cloud computing and internet of things are expected to be used in all areas of social life. Individuals who change their identity building processes even with the relatively limited technology available are expected to transform their identity building processes once again with new technologies that will be put into use.

It is expected that the big data and cloud computing systems that will be used will store all kinds of data that can be accessed about individuals' self-presentation and deliver the performance of the player to the audience. Internet of things technology means that many objects interact with each other with the internet connection. In the process of the upcoming technological revolution, almost all objects are thought to be connected

to the internet. Internet-connected objects are expected to communicate with people as well as communicate among themselves. These objects will become part of the personal showcase that individuals exhibit in the self-presentation process. It is believed that objects will become part of the individual's identity-building process, as well as be included in the target audience to whom the self-presentation is made.

In this process, in which all the tools used will be connected to the internet, it is expected that the tools that provide personal service (all home appliances such as television, food processor, coffee machine) will be integrated into the social media accounts of individuals. Thus, it will be ensured that objects have information about the digital identity building processes of individuals. In this way, objects will have a constantly updated data collection about possible television programs or music that the individual will enjoy. It is thought that objects that will have the most up-to-date data on various topics such as individual's tastes or friendship relationships can develop new behavior patterns suitable for the individual. It is envisaged that these objects can provide flexible (personalized) services to individuals by recording personal showcase information about individuals.

In this period when new technologies will be used, it is considered that the identity building processes of the individual, who are expected to interact with objects, will change accordingly. Self presentations made through digital platforms are considered as important as self presentations made in real physical field. In the future, it is thought that digital identity building will become more important than real identity building. In the long term, it is thought that thanks to transformed technologies, the identity building process cannot be realized independently of digitalization.

CONCLUSION

This study is based on the idea that changes in communication technologies, changes identity-building processes. Changing communication technologies also change the daily life practices of the individual. The individuals adapting to these technological developments, conducts their self-presentation via digital platforms. The personal features displayed in the digital environment and the impressions given to others in the digital environment digitize the identity building processes. At the end of these processes, individuals have digital identities as well as their real physical identities.

Since the identity building process is a process shaped by self-presentation, the theoretical basis of the study has been determined as Goffman's self-presentation theory. Self-presentations mentioned in theory

take place in real non-digital physical environments. Approaches and concepts in theory have been associated with digital platforms. It has been concluded that the individual's course of proceeding identity building in a digital environment similar to the real physical environment. However, it has been determined that what is performed through digital platforms is not the real self, but the ideal self. Thanks to the new communication technologies that are expected to be used in the near future, the changes expected from the identity building process have been indicated.

As a result of the literature review, qualified studies on the subject were reached. However, it was observed that these studies did not make any predictions for the future. Scientific studies on the subject are in the nature of analysis. No study has been encountered that stated that a transformation will take place in the process of identity construction with the development of communication technologies. This study is expected to be useful in that it includes predictions about the digitization of identity. It is suggested that the researchers who will work on the subject make inferences about the future of digitalization in identity.

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Chapter 6

PROXY RELATIONS IN THE CONTEXT OF COMPETITION, COOPERATION AND CONFLICT: LEBANON

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INTRODUCTION

In today's international politics field, the notion of power and the phenomenon of war have entered a restructuring process and the view that they are no longer the main tool of politics has started to be discussed. On the one hand, the fact that there has not been a war between states for a long time brings to the agenda that peace has come or the phenomenon of war has changed. On the other hand, the answers to the questions such as can a conventional war break out again, is a nuclear war probable, is there a possibility of a third world war between states are sought. Along with these discussions, it seems that states do not prefer to participate in front-line wars as before. However, the fact that states do not prefer mutual war should not mean that world peace is achieved, and it should be taken into account that hot conflicts still exist.

According to the Uppsala Conflict Data Program, there were 152 conflicts at various levels worldwide in 2019 (UCDP, 2021). Some of these conflicts, classified as regional, ethnic, economic, religious and ideological, are successfully managed. Some have devastating consequences, such as wholesale killing. Looking at recent history, it is possible to find various examples. Radical and violent policies of the regime in Cambodia, actions by militia groups in Rwanda, civil wars in Sudan and the Congo, ethnic cleansing by Serb militia groups in Bosnia and Herzegovina, wars in Chechnya and terrorist acts in Iraq are some of them (Jeong, 2008: 2-3). On the other hand, according to the data of the Global Peace Index, conflicts have increased in the last decade due to reasons such as regional tensions in Eastern Europe and Northeast Asia, intense conflicts in the Middle East, terrorist activities, political tensions in Europe and the USA as a result of refugee movements. The impact of this situation on the global economy in 2018 is $ 14.1 trillion (IPE, 2019: 107). In addition, the data of the United Nations High Commissioner for Refugees show that as of the end of 2019, the number of forcibly displaced people in the world is 79.5 million, the number of internally displaced people is 45.7 million, the number of refugees is 26 million and the number of asylum seekers is 4.2 million (UNHCR, 2021).

Another determination is included in the "Human Development Indices and Indicators" report published by the United Nations Development Program in 2018. Accordingly, it has been stated that countries with the least humanitarian development have experienced many intra-state conflicts since 1990 due to economic crises and epidemics (HDI, 2018: 2-3). However, it should not be understood from this situation that developed countries are not involved in conflicts. As a matter of fact, some opinions are in this direction. Currently, States or nations that avoid direct struggle resort to a method of struggle using other states and non-state

actors. Proxy wars, which have been a method of struggle used by states or nations that have avoided direct struggle throughout history, are seen to be preferred by developed countries today. For example, Rauta and Mumford argue that the intense turmoil created by the Angolan Civil War was caused by proxy wars waged by superpowers who were indirectly involved in the conflict (Rauta and Mumford, 2017: 99-115). In another example, Turse claims that in the 1980s, the US government waged a proxy war against the Soviet Union, providing financial and military support to the mujahideen in Afghanistan (Turse, 2012). According to Innes, this is a clear indication that the two great powers in their struggle against each other have secretly directed or controlled the actions of internal armed groups (Innes, 2012). Similarly, Rekha (2017: 62) notes that the United States and Russia are involved in proxy war in Afghanistan, and that Pakistan is the proxy of the United States. Furthermore, Cockburn (2016) states specifically to the fact that the United States and Russia waged a fruitless proxy war in Syria until the capture of Mosul by ISIS in June 2014. As a result, in the post-Cold War international order, it can be said that many of the conflicts occurred in the form of internal wars and were carried out through certain external supports.

At this point, we should say that there are factors that direct the supporting state, which wants to achieve its strategic goals, to the proxy war. For example; cheaper than the high cost of a traditional war (Groh, 2010: 24), it has the character of being a covert intervention (Innes, 2012: 4), and a proxy based on the nation-extreme organic bond or ideology may be preferred (Salehyan et al, 2011: 711). Indeed, as Mumford (2013: 41) points out, proxy wars have historically been the rational choice of states that wanted to advance their strategic goals and at the same time avoid costly and bloody direct wars. On the other hand, from the point of view of a proxy unit (non-state local actor) that does not have enough resources, obtaining the resources needed to achieve its political goal from the supporter unit is an important factor. Here, a proxy unit is a structure that has the desire and capacity to resort to violence to achieve its goals. At the same time, it has no ties to any state organization, such as regular military armies or police, gendarmerie. For example, militia forces, tribal chiefs, warlords, terrorist organizations, mafia, mercenaries and irregular structures that can act to a certain degree of autonomy in terms of resources and infrastructure can be included in this context (Bailes et al, 2007: 10-12). According to another definition of Bruderlein (2000: 8), non-state organizations used as proxies are structures that have a chain of command, use violence to achieve their political goals, and are independent from state control.

Based on these discussions, it is possible to make the following analysis of the transformation of the proxy war: While the proxy war was used as an indirect strategy or to describe the power struggle between the USA and the USSR over a third country during the Cold War, it turned into a method of being effective in a third country through local actors after the Cold War. While this struggle is a hot conflict between the proxies, the forces that are their supporters get involved in these conflicts only when necessary. As a result, it is possible to summarize the elements of the proxy war as follows: external actors, a third country, local powers of this country, external actor-local power cooperation and mutual interest. From the combination of these elements, proxy wars can appear in various forms (Kurt, 2019: 311). The main problem at this point is that classical theories have difficulty in explaining the proxy unit, which is the most important instrument used by global and regional powers in proxy wars. Therefore, when examining the effect of armed violence on world politics, it is necessary to go beyond the state-centered approach and theories established from this point of view.

Some developments in today's globalized world have also brought about a different view of the phenomenon of war. Due to policies based on ethno-religious identities that became increasingly prominent in the post-Cold War world, civil wars that gave a different view to the classic phenomenon of war began to become widespread. In addition, the fact that the permeability of political borders separating the domestic and foreign policy environments of countries has increased at a palpable rate compared to ancient times has caused the distinction between classical wars and civil wars to become ambiguous. The widespread use of proxy wars as one of the new forms of power struggle between states, transforming the war strategy in the new age and taking its place in foreign policy making shows that it has a complementary nature in terms of war, security and peace studies. While proxy wars have a past that is older than the history of international relations, today it is still one of the important strategies of foreign policy making with its changing dynamics. In this respect, a comparative analysis should be made on the phenomenon of proxy wars in the light of modern historical events and facts. On the other hand, in intra-state conflicts, which are increasing in number and provide a suitable basis for proxy wars, violence is more intense, conflict periods are longer, it is more difficult to sit at the negotiating table and get positive results (Barbara, 2004: 373). For this reason, it is very important to be able to reveal proxy relationships. As a matter of fact, at this point, states support the rebel groups by taking their interests into account, and security threats posed by armed groups whose military forces, economic capacities and

organizational structures are consolidated with this support challenge the states.

One of the countries where this challenge is seen is Lebanon. In Lebanon, which is a country of the Middle East that is small in terms of surface area and population but extremely important in terms of its capacity to affect its environment, the political structure is weak and artificial, and the social structure is quite complex. A legitimate and strong state structure that could hold together ethnic and religious groups that clash with each other from time to time could not be established. Lebanon is vulnerable to foreign intervention due to its weak political and social structure and artificial borders. Therefore, Lebanon can bring different crises in the region to the agenda in different dimensions and even change the course of the crises. For example, as the Syrian civil war turned into a proxy war between the great powers, its activities in Iran and Lebanon, which are one of these parties, have been at the top of the agenda lately. The low-intensity tensions and conflicts between Israel and Iran arising from Hezbollah raised the possibility of Israel making military plans over Lebanon instead of a direct intervention in Iran. On the other hand, after Jerusalem was declared the capital by the former US President Donald Trump, the Palestine-Israel problem has entered a new phase. Hezbollah and Israel, which has a strong military-economic infrastructure in Southern Lebanon, took positions against each other. The redefinition of the Palestine-Israel problem over Lebanon also brought Lebanon to the top of the world agenda again.

In light of this information, the study focuses on proxy relations in Lebanon, which have become a platform for implementing the policies of global powers such as the United States, as well as countries in the region such as Israel, Syria, and Iran. In other words, the relations of local and regional actors who are influential in Lebanese politics with each other and the main areas of disagreement are being determined. In defining the main problem, the focus is on the duration of conflicts in intra-state conflicts and the role of external actors. In this context, the arguments considered are: additional resources provided for warring parties by external support increase the fighting power, leading to longer conflicts (Record, 2006). Financial and military support from external states poses a serious threat to peacebuilding and makes conflicts longer and more destructive (Elbadawi and Sambanis, 2000; Lacina, 2006). Possible agreements become more difficult as the number of actors with a stake in the talks increases with external intervention (Balch-Lindsay et al, 2008). If all external actors involved in a problem do not approve, the conflict is more likely to remain unsolved (Cunningham, 2010). As a result, it is understood that proxy

wars, with their multi-dimensional and multi-actor structure, can be a factor that makes solution difficult from the very beginning.

Based on the assumption that proxy wars are a type of relationship and make it difficult to resolve conflicts, it is aimed to evaluate the relations of some influential actors in Lebanese politics. The relations of Iran, Israel and Syria as regional powers with each other and with the non-state local actor Hezbollah were tried to be determined, the relations of global powers and other minority groups in Lebanon were not mentioned as much as possible. Therefore, the limitations of the study were determined in this direction. In addition to the relevant literature survey, data collection techniques such as document analysis are used. In order to present events and facts in a realistic and holistic manner, the information obtained is examined by content and discourse analysis method. In this way, arguments are tried to be made about the effect of relations between actors who are part of proxy wars on both the conduct of proxy wars and the continuity of conflicts in the field. From this point of view, first of all, components, variables and what it refers to as a relationship type for the concept of proxy wars will be revealed and its effect on the duration of conflicts will be shown. Then, how the basic variables of proxy wars can be evaluated in the Lebanese example will be examined. Finally, we will focus on the repercussions of proxy wars in Lebanon as a type of relationship.

CONCEPTUAL FRAMEWORK: COMPONENTS, VARIABLES AND RELATIONSHIP MECHANISM

Proxy wars are blended from factors such as external actors, a third country, the local powers of this country, external actors, local powers, cooperation and mutual interests. Proxy wars come out of the combination of these elements with their various forms (Bar-Siman-Tov, 1984: 265). Karl Deutsch (1964: 102) defines the concept of proxy war that the Cold War era brought to the discipline of international relations as follows:

> *"an international conflict between two foreign powers, fought out on the soil of a third country; disguised as conflict over and internal issue of that country; and using some or all of that country's manpower, resources, and territory as means for achieving preponderantly foreign goals and foreign strategies".*

Third parties, which are not normally involved in conflict or war directly, are involved in certain methods (on the basis of providing weapons or other equipment, training, financial support to legitimate or illegitimate unit actors) and want to change the course of the conflict according to their wishes. Proxy wars were frequently encountered, especially in the 20th century, although we have witnessed certain examples in history. Pearson (1974: 262). dwelled on why other states are parties to conflicts or wars in

other geographies and cited six reasons. These reasons; the desire of the state to expand the existing territories is to see certain groups in conflict as close to itself in ethnic, religious or sectarian terms, to protect their economic interests, to protect their diplomatic and military interests, to act with ideological motives and to protect the balance of regional power.

The main component of proxy wars is foreign aid as a tool of political influence. In studies on foreign aid, the main problems have been put forward from different angles. For example; the topics such as how the criteria of the actor providing the support and the receiving actor are determined, the need framework, quantity, and the type of relationship between them have shaped these problematics. In this context, Holsti (1974: 259-267) divides foreign aid into areas such as military, technical, financial and development debts. These can be listed as assistance to create political influence on the receiving country, assistance to bring about changes in the country's domestic and foreign policy, assistance provided because it is part of an alliance, and assistance provided to address its external needs. But the important issue within the framework of the foreign aid relationship is that the issuing unit has political influence over the receiving unit. The material power that will create the political effect is expected to produce results in line with the various gains of the parties. However, the extent to which the aid giver has an effect on the recipient and whether it produces results as expected are among the issues still discussed today. In other words, the relationship between foreign aid and the measure of the impact achieved in this way is still a problem waiting to be answered. On the other hand, it is also suggested that the main purpose of the external support given is a strategic goal, since it is often assumed that the unit providing the aid allows it to increase its political influence on the unit receiving it (Baldwin, 1969: 426-427). Another classification is carried out as direct and indirect support. Under the heading of direct support, types of support such as military training, equipment support, financial support, weapon dispatch, providing safe space and logistics can be listed. Among the types of indirect support, factors such as contributing to the displacement of weapons, providing political support, establishing mutual trade channels, allowing or promoting propaganda within their borders, opening various channels for funding and/or establishing networks can be specified (Byman, 2005: 6-7). On the other hand, the results of a study conducted by Connable and Libicki (2010) on rebel groups also show the importance of foreign aid. In the research in question, it was concluded that the victory rate of the rebel groups benefiting from the state support is 50%, and this rate drops to 25% when the external support ends. If these groups continue their struggle in line with their own means, this struggle will be an asymmetrical war in terms of power

factor. The balance of power required to sustain conflicts is possible with external reinforcements. Thus, a relative equality of power will be achieved between the conflicting parties, which will affect the duration of the conflict. Proxy wars, then, should have an effect on the prolonged duration of conflicts, defined by a state's external support and sending a rebel group to fight on its behalf (Coşkun, 2019: 9).

Apart from the main component, the issue of proxy wars can be handled with different variables. Geographical proximity is one of these variables. As a matter of fact, geographical proximity affects other actors in the region in developments that pose a security problem in the region (Buzan, 2003: 4). Risks occurring in the region force other actors to take steps to expand their range of action. When evaluated in terms of proxy wars, this situation means that the threat perception between the supporter and the target unit and the security issue that comes afterwards is felt more in the nearby geographies. In other words, the geographic proximity variable in proxy wars is an important issue considering that the states residing in close geographies and competing with each other will pose more threats. For example, border conflicts pose a security threat in their own right. States that do not want to engage in border conflicts with their own soldiers, taking into account the devastating consequences and irreparable costs of this, may prefer to clash with rebel groups by proxy. The existence of territorial issues can also be explained by the variable of geographical proximity. Again, it is important as it causes more of the regional spatial conflict that can be seen between the supporter and the target unit. In addition, the fact that the coordination of proxy and supporter can be achieved relatively easily is an advantage brought by the geographical proximity variable (Duner, 1985).

The perception of internal threat is regarded as another important variable in terms of whether an existing internal confusion is sought in an external power's preference to fight by proxy. Problems such as whether the supporting unit is drawn into the current turmoil, whether it sees it as an opportunity, or whether it creates an internal disturbance play a big role. As a matter of fact, it has often been witnessed that local actors receive help from external forces if internal complexities turn into hot conflicts due to reasons such as the demand for political change (Schock, 1996), current religious and ethnic differences (Eck, 2009), economic distribution (Fearon and Laitin, 2003) or identity differences (Collier, 2007). In proxy wars, on the other hand, there is mutual interest in the relationship between the actor who supports the outside and the local armed force. Local power is dependent on external power to provide the resources it needs and mostly fights for common purposes.

Another variable is the conflictual past. Some issues of disagreement can depend on issues that are historically rooted, contain a sense of hatred passed down from generation to generation, and are quite difficult to resolve. Some may depend on the cyclical issues of the period related to the foreign policies carried out by the regimes. If the history shared by the two sides is competitive, the other party is seen as a threat either over resources or over power. Wars in the past create a collective history, collective memory also creates loss and suffering that is transferred from one generation to the next. When one party has a history of dominating the other, there is little basis for trust or cooperation. Each of these past experiences lays the foundation for present and future interactions. As history develops on itself, individuals and societies take action against the negative other and soon define themselves according to what they oppose others. Ongoing conflict or threats of conflict lead to the formation of vested interests expressed in various aspects of war, defense and opposition. Each of these interests becomes an integral component of the conflict dynamic, as ending the conflict effectively threatens their own existence (Seymour, 2003).

Beyond these variables, it is important to reveal relationships in proxy wars. At this point, Salehyan (2007) emphasizes the cross-border identity ties between the supporter and the proxy, and states that proxy relationships usually begin on a common identity basis. San-Akca (2016) also focuses on how relationships are established and tries to build a model by accepting proxy units as autonomous actors with their own identities, goals and strategies. In this respect, it can be said that two actors with structural differences in the supporter-proxy relationship are a cooperation of interest in line with their own goals.

Apart from these, Szekely (2014) divides the supporter-proxy relationship into three types: holistic singular supporters, more divided collective supporters, and multiple supporters. In the first case, there is a proxy relationship in which a single state with strong and high social integration emerges as a supporter. This is the strongest form of support, and proxy or proxies are controlled most effectively. In the second case, the proxy is a collective actor who has to work together but also has veto power (factions, institutions or individuals), although they have some degree of autonomy (Szekely, 2014: 457-458). In such a relationship, elements such as the question of unity of purpose, the question of control of the proxy, the potential of supporters within the subject to support proxy other than the collective subject from time to time increase the cost. In the third case, a proxy is supported by multiple different individual supporters. If all the supporters involved have the same preferences, the relationship may be relatively harmonious. On the other hand, if each

supporter has different agendas, supervision, control and coordination costs will increase significantly (Szekely, 2014: 457-458).

In order for proxy wars to be conducted, at least three actors, supporter, proxy and target unit, must interact with each other. It can be assumed that this style of relationship with at least three actors, where competition, cooperation and conflict elements coexist, has a unique mechanism (Coşkun, 2019: 90). The supporter-target unit relationship is evaluated based on the status of the parties in dispute, their goals and the possibility of resorting to violence as a result of cost-benefit calculations. For example, the parties may want to engage in violent struggle against territorial issues, which are a demographic element in the formation of national identity and are considered a historical and religious value (Chiozza & Choi, 2003: 252). As Brecher (2016) conceptualized, "long-term conflicts" or a certain status dispute or disputes arising from conjunctural policies can also be included in this scope. In such cases, if there is a conventional power difference between the parties, the weak state may turn to support some militia forces in the region (Coşkun, 2019: 92). In another relationship network supporter-proxy unit relationship, there is strategic cooperation based on interests, ethnic, religious, cultural or ideological affinity or common enemy. Therefore, the sources of motivation in establishing proxy relationships generally consist of cost reduction, risk, interest and ideology / identity (Hughes, 2014: 11-17). Finally, in the proxy-target unit relationship, the determination, purpose and motivation of the proxy in the conflict are important in terms of prolonging conflicts. This, in turn, depends on variables such as the motivation of the proxy unit in conflict (Gravingholy et al, 2007), its development in its organizational structure (Vinci, 2008), the element of power it receives from the social base (Mehler, 2004), and the degree to which it approaches income-oriented (Münkler, 2004). As a result, it is noticeable that proxy war actors have certain types of relationships between them. In this context, it can be assumed that the reasons for the dispute between the parties, as well as the dimension of the said relations, will directly affect the duration of the conflict (Coşkun, 2019: 108). In the light of this information, we can move on to the analysis of the conflicts in Lebanon.

ROOT CAUSES OF THE CONFLICTS IN LEBANON

Lebanon, which is the summary of the Middle East with all its complex features; It is in a different position both by basing political representation on religious communities and with the diversity of religious groups, which is an important factor affecting the political structure. For this reason, Lebanon is one of the most suitable countries to examine the concept of proxy wars in the Middle East, with its deep history and multi-sectarian

structure. In this small geography, which has hosted many different civilizations such as Byzantines, Crusaders, Mamluks, Ottomans and French throughout history, today there are nearly 20 religious sects and ethnic communities with different interests (Çelik, 2012: 126). However, no identity group has been able to catch and maintain the majority in the country. These identity differences shaped the structure of the country in terms of its effects and results due to the deep cultural interaction inherent in history.

In addition to this fragmented structure, Lebanon also has a strategic feature due to its geopolitical position. The fact that it has a coast to the Eastern Mediterranean and is a buffer zone between Syria and Israel, which constitutes an important part of the conflict potential in the region, has made Lebanon the center of attention for regional and global actors (Tütüncü, 2015: 65-66). As a result of the struggles for influence, the country has increasingly been dragged into violence and chaos since the mid-1950s. Lebanon, a small country that is socially divided, surrounded by powerful states that are authoritarian and in conflict with each other, has become one of the important areas of the actors of the region. It is possible to see the Syrian-Israeli tension, the tension between Arab countries and Israel, and the fact that the issue between Iran and Saudi Arabia is reflected on the field, mostly through Lebanon. As a matter of fact, while Lebanon was scorched by its own civil war, it remained in the middle of the Arab-Israeli wars and the Israeli-Palestinian conflicts. It has also become a battleground of the Iran-Iraq War and the conflicts between the Arab states and ultimately the relations between East and West (Winslow, 1996: 119). Western countries' interest in Lebanon stems from the country's Christian identity and culture. The fact that Lebanon is so open to the West's influence is related to this country's religious identity and its unique structure. For the United States and France, a Christian Lebanon is an element of balance in the region. With all these features, the country has become a jumping-off point that the great powers often use to protect their interests and achieve new gains. On the one hand, Arab culture and Christian Western culture were able to demonstrate the practice of coexistence, and on the other hand, Islam and Eastern culture and Christian Western culture stubbornly continued not to melt in the same Crucible (Sander, 1982: 220). The definition of the system of political representation as religious and sectarian has also brought problems with the sharing of political power. The reflection of the current tension in the economic and cultural areas could also not be avoided. Foreign interventions in Lebanon made the political system based on delicate balances inoperable and deepened the already existing religious-ethnic divisions in the country. In this form, the country is quite far from being

a nation-state around a common identity of "Lebanese". The endless civil war and the great material and spiritual destruction created by the war in the country made the name of the country known with religious-ethnic fragmentation. So much so that the ongoing chaos and political murders in the country introduced the concept of "Lebanonization" in international relations. Today, the concept of Lebanonization is used for countries that have gone through similar processes (Çelik, 2012: 127).

MAIN ACTORS OF LEBANESE POLITICS

It is possible to separate the actors influential in Lebanese politics as internal and external actors. Internal actors are particularly minority groups that are differentiated in terms of ethnic and religious identity. One of these are Sunni groups. The Sunnis, who acted with the goals of merging with the Arab world and bringing Lebanon into effective communication with the Arab world, lost their former positions along with France's mandate system in the region, while they were more active in the time of the Ottomans. Despite this being the case, they are still the more active and richer part of the society compared to the Shiites. Especially the Maronites and the Shiites are in a power struggle. For this reason, over time, the increase in the number of Shiites and their activity in politics has disturbed Sunnis (Sever, 2018: 5).

The Druze, who form a branch of the Ismaili sect in Islam, are another domestic actor acting together with Sunni groups in Lebanon as a supporter of Syria and Egypt's Pan-Arabism policy. Although their population is small, they have taken a very strong place in Lebanese politics with their opposition identity. But despite their involvement in the opposition, they have worked to disarm Hezbollah, suggesting that Hezbollah is fighting for Iran and Syria, not Lebanon (Betts, 2003). Druze leaders have sought to form alliances with stronger communities, both because they are few in number in the country and because they do not have allies of common identity outside the country (Köse, 2006: 15).

Another of the largest religious communities in Lebanon is the Shiites. Shiites, most of whom emigrated from Iran and came to Lebanon, did not have a political party such as Sunnis, Druze and Christians and remained behind in this area. Over time, they engaged in a number of social protests under the influence of modernization. They carried out their activities through AMAL and Hezbollah, a military structure and militia force. AMAL is a militia force organized by the Shia as a result of the Lebanese army's failure against Israeli attacks. The resistance against the Israeli occupation in 1978 increased the effectiveness of the AMAL organization. The Iranian Islamic Revolution in 1979 also strengthened AMAL by providing ideological and psychological support. Until the early 1980s,

the Shiite opposition gathered under the umbrella of AMAL turned to Islamic AMAL, which would later become Hezbollah, because of AMAL's integration into the political structure within Lebanon, its inability to be well organized, and corruption. One of the main features that distinguish AMAL and Islamic AMAL is their attitude towards the Palestinian cause. Both organizations aim to end the Israeli occupation of Lebanon; however, AMAL has no goal of ensuring Palestinian independence. So much so that AMAL entered into clashes with Palestinian refugees in the early 1980s and blockaded refugee camps. On the other hand, for the Islamic AMAL, the independence of Palestine and the Jerusalem issue have been of central importance (Köse, 2006: 14). The Islamic AMAL later turned into a Hezbollah militia because of its proximity to Iranian Shiism.

The ideology of Hezbollah, another domestic actor that represents Shiites in the political arena and emerged as a reflex to Israel's occupation of Lebanon, is based on revolutionary ideas against the Shah regime in Iran (Erdem, 2018: 48). Since the 1990s, it has had a more effective role in Lebanese politics and has turned into a political and military formation with its developed organizational structure (Hamzeh, 1993: 322). Hezbollah, which opposes Lebanon's current political structure, has also become part of political coalitions in order to take an active part in politics, so that it has been relatively successful in gaining public support due to its soft attitude in places. The organization's resistance to Israeli attacks in 2000 and 2006 and its claim to the Shabaaa Farm issue, one of the reasons for the conflict with Israel, strengthened its reputation in its own society. Because the issue of Sebaa Farms is very important in terms of being almost the only factor that the domestic political groups in Lebanon agree on (Harb & Leenders, 2005: 181). On the other hand, the organization, acting in line with Syria and Iran, tried to keep its relations with European countries in response to the USA and Israel axis, and this gave Hezbollah a legitimacy ground.

One of the actors forming the Christian unity in Lebanon is the Maronites. The Maronites have good relations with Western states, especially the Vatican and France, because of their identity ties. For this reason, they also developed in trade. In addition, according to the official political regulation of 1921, they are the social group that has the most powerful position in the Lebanese government because they hold the majority of the population. However, the recent increase in the Shia population in the country has prompted the Maronites to fight for their strong position (O'Ballance, 1998). The organization that is the political umbrella for the Maronites is the Phalangists. The Phalangist Movement is a nationalist party founded in 1936 by Pierre Cemayel. The Lebanese Forces, one of the most influential forces during the Lebanese Civil

War, form the military wing of the Phalangists. Phalangists have formed coalitions from time to time with Sunni Muslim, Druze and Christian Parties (Coşkun, 2019: 131).

The second largest Christian community in the country after the Maronites is the Greek Orthodox people. Although their activities in Lebanon are weaker than the Maronites, they are in good relations with the Western countries. It can be said that they follow a pan-Arab leaning policy and aim to lead other Christian groups other than the Maronites (O'Ballance, 1998). It is seen that they mostly act together with the Maronites in the political scene. The military wing of the Greek Orthodox is the South Lebanon Army.

Another actor is the Armenians, who make up about 6% of the population. It is in an active position in the political, economic and cultural field. While they follow a moderate line in Lebanese politics, they generally support the government. Their aim is to reach the Armenian communities living in various parts of the world and to make the diaspora stronger (O'Ballance, 1998), rather than being involved in the turmoil within Lebanon.

In order to resolve proxy relations in Lebanon, it is necessary to explain why domestic actors, as well as countries in the region, are involved in Lebanese politics. In this context, Israel, Iran and Syria, which sponsor the militia forces, stand out as external actors. Lebanon is of critical importance for Israel. The reason for this is that the actors of the region are active in this country and they use this country as a base in their fight against Israel. After the Palestinian immigration to Lebanon, the effectiveness of the Palestinian militia forces increased and conflicts against Israel started. In this context, it can be said that Israel's target is the PLO, which settled in Lebanon and organized with the support of Syria. While the importance of a proxy who shares common interests with Israel emerges at this point, it can be stated that the Lebanese Front, which wants to push the PLO out of the Lebanese territory, has a similar political goal. On the other hand, the Lebanese Forces, which fought against the PLO in the Lebanese civil war and fought against some left-wing militia groups supported by Iraq, is another proxy unit candidate (Sozer, 2016; 649).

Another external actor is Iran, who, after the 1979 revolution, placed the center of both domestic and foreign politics on Shiite theory and rhetoric and focused on carrying out its policies on the axis of export of revolution. Lebanon was one of the first places where Iran put its policy into practice. Because, before the revolution, Lebanon is the main center of shelter for groups opposed to the Shah administration and even for the Iranian

Ulama. Therefore, close relations have been established between Iran and Lebanese circles and movements. One of these movements is AMAL. Although Iran does not fully approve of AMAL's line, it has an important share in the development of the organization. After the revolution, it was instrumental in the emergence of Hezbollah by separating the pro-Iranian group within AMAL. Supporting Hezbollah with all the means at its disposal, Iran transferred hundreds of revolutionary guards to the Bekaa region via Syria with the green movement in Syria in 1982 and started to train Islamist Shiite elements (Axworthy, 2013: 223). Iran's activity in Lebanon can be seen as the traces of its rivalry with Iraq, Israel and Saudi Arabia in the region.

Another external actor, Syria's relationship with Lebanon is based on a different basis. Because Lebanon was founded on the lands of Syria after the Second World War and was built later, like many Middle Eastern countries. Syria's close relationship with Shiite groups within Lebanon is viewed as a useful tool in its strategy, as opposed to Iran's ideological base. As a matter of fact, Syria established its relationship with AMAL, a rising Shiite movement in Lebanon in the 1970s, in line with the development of its own internal policies. As of April 1, 1976, Syrian soldiers entered the Lebanese territory and took control of Lebanese politics by a large majority (Lawson, 1984: 451). On the other hand, it was also very important that Syria, which had a share in the development of Hezbollah, allied with this group. As a matter of fact, Syria thought that it could use Hezbollah as a shield that could be used when necessary, against both Israel, the USA and its Lebanese allies. Finally, the US's support for Israel within the framework of Middle East policies and the competition of Arab regimes with Israel have also fueled ethnic, religious and sectarian divisions in Lebanon (Coşkun, 2019: 149).

PROJECTION OF PROXY RELATIONS IN LEBANON

The relations of the determining actors of the Middle East such as Iran, Israel and Syria with each other and with Hezbollah, which is influential in Lebanese politics (See: *Figure 1*), fundamentally affect both the continuity of the chaotic environment in Lebanon and the Middle East peace process.

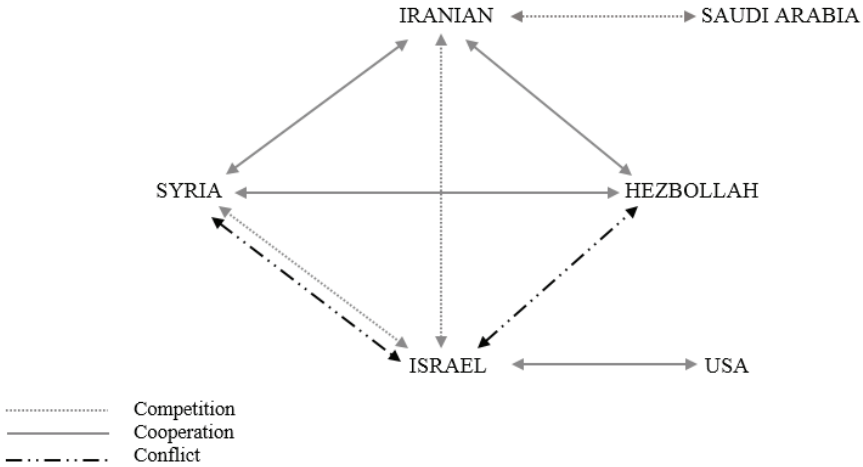

Figure 1. Proxy Relations in Lebanon

The delicate balances built with the Israeli attacks, which Lebanon, which is one of the countries with the most intense ethnic and sectarian fragility, was exposed to due to its civil war past and especially the Palestinian issue, resulted in the establishment of external connections of various groups in Lebanon. In this context, whether the connections established are tutelary or ideological overlap is a critical point in terms of making an assessment through proxy wars.

Competition Relationship

In Lebanon, which is one of the areas of political rupture in the Middle East, it is necessary to look closely at the strategic positions of Israel and Iran in line with their regional rivalries. Because both Iran and Israel are extremely sensitive to developments in Lebanese politics. Israel's Lebanese politics are carried out over the Palestinian issue and the status of Shebaa Farms, both areas of territorial dispute (Kaufman, 2002: 576). As far as Iran is concerned, the effectiveness of Hezbollah, which is very close to it from an ideological-organizational point of view, against Israel pushes it to work directly on Lebanon (Sozer, 2016: 644-651). In addition, Iran's export of revolution through a Shiite corridor to be created in the Mediterranean Sea will be able to grow in Lebanon to the extent of the effectiveness of its ideological partner, and thus jump to wider geographies.

Israel does not think Lebanon independently from Iran due to its close relationship with Hezbollah. The Israeli administration mostly attributed the resistance of Hezbollah during the war to Iran's military and financial support. Therefore, according to Israel, Lebanon is also Iran. For this

reason, the Lebanon War in 2006 was named as the First Iran-Israel War in Israeli public opinion. In today's conjuncture, according to the Israeli administration, Iran has the capacity to target Israel through its military bases active in Syria (Konukçu, 2017). This poses a threat to the Golan heights under Israel's control. In addition, Israel accuses Iran, which it claims to pursue regional hegemony, of further escalating the Shiite-Sunni tension and fueling violent acts in the region (Schiff, 2006: 23-31).

Another country where Iran is in a competition based on interest, power struggle and superiority in Lebanon is Saudi Arabia. Iran's struggle with Hezbollah and Saudi Arabia's Sunni groups deepens the division that already exists in Lebanon. At this point, it is claimed that Iran wants to realize a significant part of the "Shia Crescent", which is presented as a project to bring together the Shiites in Iraq, Syria, Lebanon and the Gulf countries, by taking Syria and Lebanon together due to the revolution and security export (Bargezar, 2008: 87-99). Saudi Arabia, on the other hand, does not want Iran to win the struggle it waged over the Shiites in the Middle East and is disturbed by the Shiite Crescent discourses. Hezbollah structuring in Lebanon makes Saudi Arabia uneasy and confronts the Saudis at every opportunity. As a result, Hezbollah's bringing Lebanese policies closer to the Iranian side negatively affects the relations of the Saudis with Lebanon and the Saudis punish Lebanon in some way. For example, during the crisis between Saudi Arabia and Iran after the execution of the Shiite leader, Lebanon's failure to make statements condemning Iran in attacks on Saudi diplomatic missions caused Saudi Arabia to cancel $ 4 billion in aid to Lebanon (Al-Rasheed, 2016).

While the Israeli-Iranian and Iran-Saudi Arabian rivalry can be read from an ideological perspective and the conflict of regional strategies, the nature of the Syrian-Israeli rivalry is based on various factors such as the perception of the threat to sovereignty, regional conflict, the sharing of natural resources, and the security problem. The conflicts between the two countries gained momentum with the occupation of the Golan Heights by Israel during the Six Day War, which took place 19 years after the establishment of the state of Israel (Popp, 2006: 281-309). In addition, Syria has been against Israel in all Arab-Israeli wars, including the Yom Kippur in 1973 and the Lebanon War in 1982 (Akpınar, 2014: 218). The main reason for this situation is the Palestine problem, which is the issue between Israel and other conflict countries. The Syrian regime, like other countries, has tried to reinforce its legitimacy in its domestic policy with its hostility to Israel and to show that the basis of the structural and administrative problems is the existence of Israel. Beyond the ideological differences, the conflict between the two countries after the 1967 Arab-Israel War turned into a sovereignty and security issue with the occupation

of the Golan Heights, located in the southwest of Syria, by Israeli forces. In this context, the Golan Heights, besides being of strategic importance, has a symbolic meaning for both countries. It is considered a "national pride" for Syria and a "promised land" for Israel (Slater, 2002: 84). However, the significance of the issue regarding domestic politics has also been the reflex of keeping their credits strong, who face the risk of losing the military superiority they desire over each other before their own people. Thus, they will have the opportunity to consolidate the regional power they desire. On the other hand, from the Israeli perspective, it can be said that the main threats are Syria and Iran. Because; Negative peace with Egypt and Jordan is preserved, Iraq is struggling with its domestic issues, and Palestine poses a political threat rather than a military one (Ma'oz, 2002: 211).

Another issue has been Syria's links with organizations such as Hamas and Hezbollah. Israel considers these organizations to be terrorist organizations, and the violent campaigns that these organizations have conducted against Israel since the past have led Israel to turn against both these organizations and those who support them. Syria, on the other hand, claims that the state of Israel is a tool that the United States uses to maintain its policy in the region and is developed against Arab nationalism. There are several reasons why Syria supports Hezbollah. First of all, Hezbollah, Syria and Iran have been the most important actors of the Shiite wing in the Middle East. Although Syria's Shiite population is in the minority, power with the Assad regime is concentrated in the hands of the Shiite minority. Because they are a minority, they are trying to keep militia forces strong against the Sunni danger that is the majority in the region. In addition, the difference in conventional power between Syria and Israel and Israel's conventional superiority have led Syria to support militia forces in the region (Akpınar, 2014: 224). On the other hand, this has raised the issue of disagreement over the main issues of disagreement in the current competitive relationship, as well as over the rebel group supported to fight against it (Nasrallah, 1994: 135-136). Hence, the problem to which cyclical developments are added has become more complex.

Cooperative Relationship

The first relationship to be mentioned in the context of cooperation is the Iran-Hezbollah relationship. At this point, the important thing is to determine the influence of Iran on the violence carried out by Hezbollah. However, it is very difficult to put forward the claim that the proxy war was waged in the relationship with Iran of this non-state armed organization, which used violent acts as an important tool especially

during its establishment and development years. Because, Hezbollah, which had an intense tendency of violence during its establishment, turned into a legitimate political-military formation to some extent since the mid-1990s. So much so that Hezbollah, which has deputies in the Lebanese parliament and ministries in the cabinet, adopted the basic principle of protecting the Lebanese state against foreign occupation (Hamzeh, 1993: 322-323). This makes Hezbollah is a legitimate-political actor fighting for the security of Lebanon and the peace of its society, and an armed organization that does not hesitate to resort to violence in its cause. On the other hand, the Tehran administration has never accepted claims that it supports Hezbollah. Therefore, it is very difficult to define Hezbollah as a political group under the tutelage of Iran, which is at the other end of the political equation in Lebanon and shares a common regional perspective with the Tehran administration. As a matter of fact, Hezbollah emphasizes that it has a perspective that sympathizes and supports the Iranian revolution, but rejects the hierarchy Iran is trying to establish in the region (Alagha, 2006). On the other hand, Hezbollah's taking into account the regional and international interests of Iran in its acts of violence and terrorism and the use of military equipment from this state indicates the existence of a certain proportion of the elements of state-sponsored terrorism and proxy wars (Harb & Leenders, 2005). So much so that in Lebanese domestic politics, Hezbollah is called Iran's "puppet" (Whittaker, 2002: 143-144). In addition, the existence of ideological and religious elements contributed to the development of bilateral relations. For example, during its establishment, Hezbollah announced that they would establish an Islamist state in Lebanon similar to that of Iran and that they would recognize Iranian Leader Ayatollah Ruhollah Khomeini as its religious leader (Byman and Kreps, 2010: 5). Behind this development, the common attitude towards Imam-i Caferi, who is considered religiously important in the Shiite sect, has also been effective (Caudill, 2008: 7).

Another cooperation relationship is the Syria-Hezbollah relationship. The organization of the Shiites in order to achieve their political and religious goals was made possible by Syria's support of the AMAL Movement. However, the rupture within AMAL as a result of the Israeli attacks in 1982 caused Syria to worry, so Syria began to follow policies to control the birth and development of Hezbollah, the Islamic wing that emerged from within AMAL. Because one of the reasons for Hezbollah's breakaway from AMAL is that it has adopted a religious worldview on the Iranian line, not a secular worldview on the Syrian line. On the other hand, their common stance against the Sunni bloc in terms of sectarianism ensured their convergence (Quilliam, 1999: 142). Therefore, Syria's relationship with Hezbollah is different from the Iran-Hezbollah

relationship based on organic bonds. In this respect, it can be said that the Syria-Hezbollah relationship is a strategic cooperation relationship. Thanks to this cooperation relationship, Hezbollah, Syria and Iran have become the most important actors of the Shia wing of the Middle East. In Syria, even though the Shiite population is in the minority, it has been able to hold the power with the support of regional alliances. In addition, as stated before, it has tried to close the disproportionate power gap with Israel by supporting Hezbollah.

The Iran-Syria relationship is another cooperation relationship. These two countries, whose historical processes and identity analyses are different, diverge from each other in terms of their worldview and ideologies. However, ideological difference has brought these countries closer to each other. So much so that there was no communication to compete between Syria, which developed a Pan-Arabist rhetoric, and Iran, which has a pan-Islamic rhetoric (Godarzi, 2013: 36). In general terms, the characteristics of the two countries are similar in determining their international and regional policies. Both countries have adopted a style that develops a revisionist and opposing discourse rather than a constructive one. After the revolution, Iran made itself the most justified in the region and isolated itself from other actors, while Syria similarly tried to put itself in a different position than the Arabs. This similarity has pushed the two countries into a kind of highly profitable strategic alliance with each other. This strategic relationship is focused on security. Syria's influence in the Levant is important for Iran's security. Similarly, Iran's dominance of the Gulf is important for Syria (Coşkun, 2019: 208-209). It is seen that the rapprochement that started during the Gulf War continues today. For example, Iran sided with the Assad regime to suppress the popular uprising in Syria. For this purpose, he ensured the establishment of militia organizations and brought thousands of Shiite militias from some countries of the region to Syria with the claim of protecting the sacred places of Shiites (Abdulmecid, 2020). However, apart from being an ancient friendship, this relationship has become a type of relationship that has developed as a result of the agreement of strategic calculations.

Conflict Relationship

Israel-Hezbollah relations constitute the conflict dimension of proxy relations. According to Israel, Hezbollah is a puppet of regional rivals, a pawn that swings on itself, and a subcontractor that protects and protects its own interests in Lebanon. Israel has faced Hezbollah many times since the organization's inception, but mostly these conflicts were conducted through the Israeli-led Lebanese army. The 2006 war is significant in that it is a direct Israeli-Hezbollah conflict. Israel perceived Hezbollah's

military abduction operation as a threat to its own security and accepted it as a reason for war and declared war against the Lebanese State. In other words, Israel did not see Hezbollah's move as a terrorist operation. In practice, however, it was Hezbollah, a non-state armed actor that he fought (Smith, 2006). In this context, Israel's response by equating Hezbollah with Iran and Syria reveals the proxy relations.

On the other hand, from the point of view of Hezbollah, the main enemies of the Middle East are the United States and Israel. Defeating Israel is one of Hezbollah's reasons for existence. However, according to Hezbollah, the main enemy is the USA, as Iran admits. Israel, on the other hand, is seen as an illegitimate state and the advanced subcontracting power of the USA in the region. For this reason, it is believed that it should be removed from the Palestinian lands. Hezbollah members, who strongly criticize all other actors in the region who have close relations with the USA and Israel, emphasize that they are far from any compromise area (Altunışık, 2007: 7-9). This, in turn, gives Hezbollah a clue to the existence and what its own political goals are, and gives it the quality of being an actor. It is possible to say that the 2006 Lebanon War also made Hezbollah an autonomous actor. For the first time, under the phenomenon of "war", we witnessed the struggle between a state that is the dominant actor of international relations and an armed organization that developed itself by organizing and arming to the extent that it could challenge this state. Therefore, considering the Hezbollah-Israel conflict relationship, it is possible to say that Hezbollah is an actor who benefits from this conflict at least as much as Israel, in line with its own policies. Nevertheless, the fact that the basic military and economic resources needed by the conflict motivation are provided by Israel's rival powers makes it a proxy in the regional dynamics.

CONCLUSION

The concept of war, whose content can be filled in different forms according to the structure of the international system, the abilities of actors, and the weapons used, has been one of the most important areas of analysis of the discipline of international relations. Considering that the years when there was no war in world history were limited, the importance attributed to the phenomenon of war can be understood. As in every stage of history, states need to constantly observe their opponents and analyze the changes in the delicate balance of political power in order to maximize their national interests and security. Self-sufficiency in the military field reinforced the claim that those with stronger weapons would strengthen their effective positions against their enemies. It has also developed its foreign policy behaviors within the framework of this motive. However,

since the Cold War period, the emergence of many non-state actors besides states, the intensive use of technology in wars, the fact that the peoples are directly involved in the organized wars, and the privatization of violence from the state monopoly, has led to the questioning of the continuity of traditional war approaches between states. Therefore, it has become necessary to develop a new war concept with the perception that there are changes in the nature and character of war. At this point, other policies have begun to be developed to replace the traditional war that involves destruction and cost. This has paved the way for states to consider an alternative, such as supporting an armed organization against a rival state, harming and eroding the rival state, occupying its agenda through conflicts, and supporting it mostly with military and financial factors in order to ensure its damage. Ultimately, the concept of proxy war, which refers to war between the states of the international system, has come to light as a form of struggle applied by the state.

Although states do not prefer traditional wars as before, peaceful life is succumbing to the act of violence in different forms. The intra-state conflicts seen in different parts of the world show this situation to us. On the other hand, the question arises as to how hostile attitudes among internal dynamics have become so widespread and determinant in the international environment. The relevance of proxy wars to this issue seems possible through the explanation of the consolidation of the conflict that arises in internal dynamics with the support of an external force. This is because the main source of nourishment in the continuation of intra-state conflicts is read through the element of external support received by the rebel groups who are the perpetrators of the conflicts. As a matter of fact, external support makes the struggle against state forces possible and sustainable by providing the resource flow that rebel groups need in conflicts. Therefore, although there is no inter-state war, witnessing intra-state conflicts shows that there is no situation to rejoice in. As seen in the example of Lebanon, which can be interpreted as the most complicated country in the Middle East in terms of sectarian division, the proxy wars continue in the ugliest way. Consequently, it is necessary to be aware of the potential dangers and unpredictable consequences of proxy wars, as well as their impact on the perpetuation of conflicts by fueling social and political division.

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Chapter 7

ANALYZING DETERMINANTS OF FINANCIAL DOLLARIZATION IN TURKEY

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Introduction

In times of persistent high inflation, sharp depreciation of the domestic currency, and economic uncertainty, economic actors in the developing countries tend to adopt a foreign currency instead of their own currencies to protect the purchasing power of their income (Quispe-Agnoli, 2002). The holding of foreign currency assets and liabilities by local residents is called financial (partial) dollarization in the literature (Yeyati, 2006). Financial dollarization in an economy causes a series of problems such as the decline in the effectiveness of the monetary policy, high exchange rate pass-through, balance sheet problems in firms and banks, and increasing sensitivity to the external shocks as a result (Alvarez-Plata & García-Herrero, 2008; Armas et al., 2015; Gulde et al., 2004; Ozsoz & Rengifo, 2016). Therefore, it is important to understand the determinants of financial dollarization in developing countries. In this study, I analyze how inflation volatility, exchange rate depreciation volatility, expected inflation, and expected exchange rate depreciation affect financial dollarization in Turkey historically.

Figure 1: The dollarization ratio: the ratio of FX deposits to the M2 money supply

Due to Turkey's numerous economic problems during the 90s such as sharp depreciation of the Turkish Lira, chronic large fiscal deficit, frequent economic recessions, and persistent high inflation, the Turkish economy also experienced rapid financial dollarization. Both in the 94 crisis and the 2001 crisis, the ratio of FX deposits to the M2 money supply, one of the most widely used indicators to measure financial dollarization in an economy, reached 60 percent and was mostly above 40 percent between 1990 and 2003 as shown in Figure 1. After 2003, the dollarization ratio in Turkey fell quite considerably due to relatively low inflation and stable Turkish Lira. However since 2011, dollarization is becoming once again

a troubling problem in Turkey. In 2019, the ratio of FX deposits to M2 money supply once again reached to 50 percent.

There are quite a number of studies that study the determinants of dollarization in Turkey. Early studies such as Özkaramete (1996), Selçuk (1994), Bahmani-Oskooee and Domac (2003), Civcir (2003), and Us and Metin-Özcan (2005) analyzed the dollarization process in the 90s and show that high inflation and the depreciation in Turkish Lira are primary determinants of dollarization in Turkey. Civcir (2003) also showed that the real interest rate differential between domestic and foreign currencies affects the dollarization ratio. Among the studies which also take account of the period after Turkey adopted IMF backed "Transition to Strong Economy" program, Metin-Özcan and Us (2007) analyzed whether inflation volatility, exchange rate volatility, and the expected exchange rate have an effect on the dollarization process in Turkey for the period of 1985M12-2007M04. They found that the dollarization ratio is positively affected by all these three factors. Sever (2012) also analyzed the relationship between exchange rate uncertainty and dollarization in Turkey by conducting a Granger causality test for the period of 1989M12-2010M12 and 2001M02-2010M12. Sever (2012) showed a two-way relationship up to the sixth lag between the dollarization ratio and exchange rate volatility for the whole period, but only a one-way causal relationship from the dollarization ratio to exchange rate volatility for the recent period. In a comprehensive study, Tasseven (2017) used Geweke linear feedback, frequency domain Granger Causality, and wavelet comovement analysis for testing the effect of interest rate differential, the BIST 100 index, the central bank reserve ratio, expected inflation, expected depreciation, and the VIX index on currency substitution in Turkey between 2001M08 and 2014M12. Her results showed that all explanatory variables except the VIX Index influence the dollarization ratio of Turkey. In another comprehensive study, Dumrul (2010) examined the relationships between currency substitution, trade openness, the expected real exchange rate, the expected inflation rate, central bank's gross foreign exchange reserves, and interest rate differentials between 1988 and 2009 using the bounds test approach and show that all variables affect the currency substitution in the long run.

In this study, I use a vector autoregressive model including inflation volatility, exchange rate depreciation volatility, expected inflation, expected exchange rate depreciation, and the dollarization ratio to analyze determinants of financial dollarization in Turkey. First, I compute generalized impulse response functions and show that expected exchange rate depreciation pushes the dollarization ratio upwards, whereas an increase in exchange rate volatility causes the dollarization to fall.

Furthermore, the dollarization shock has a significant positive impact on the dollarization ratio. However, I haven't found any significant effect of expected inflation and inflation volatility on the dollarization ratio. Next, I calculate the historical decomposition technique to evaluate how each shock affects the dollarization ratio historically. The results show that changes in the expected exchange rate causes the dollarization ratio to fall between 2006 and 2010, but after 2011 exchange rate depreciation increases the dollarization ratio.

The remainder of this paper is as follows. Section 2 introduces the data set. Section 3 describes the empirical results. Section 4 concludes.

The Data Set

In this study, I evaluate the effect of inflation volatility, exchange rate depreciation volatility, the expected inflation rate, and expected exchange rate depreciation on financial dollarization in Turkey using a VAR framework. I select these explanatory variables following the portfolio approach of Ize and Yeyati (2003) and the traditional currency substitution models. Ize and Yeyati (2003) argued that exchange rate depreciation volatility relative to inflation volatility is the main determinant of financial dollarization. In the portfolio approach, high exchange rate volatility decreases dollarization, whereas high inflation volatility increases dollarization. However in the currency substitution models, the expected inflation rate and expected exchange rate depreciation are the fundamental driving forces of dollarization.

As a proxy for financial dollarization, I use the ratio of foreign exchange denominated deposits to M2, one of the most widely used metrics in the literature. The expected year-over-year (YoY) inflation rate is calculated using the current month's month-over-month (MoM) expected inflation rates which are obtained from the Central Bank of the Republic of Turkey's (CBRT) survey of expectations.

For the expected exchange rate, there are different metrics in the literature. For example, Civcir (2003) used the actual real exchange rate; Metin-Özcan and Us (2007) adopted the forward rate; Tasseven (2017) used the expected current month nominal exchange rate of USD/TRY obtained from the CBRT's survey of expectations. In this study, I also use CBRT's survey of expectations' current month nominal exchange rate as the expected exchange rate similar to Tasseven (2017). Then, I calculate YoY growth rates to obtain the expected exchange rate depreciation.[1]

Similar to Metin-Özcan and Us (2007), exchange rate depreciation volatility is calculated using a GARCH(1,1) process with the YoY

1 I also use other mentioned metrics for the expected exchange rate and obtain similar results.

nominal exchange rate of USD/TRY as the dependent variable. Similarly, inflation volatility is calculated using a GARCH(1,1) process with the YoY inflation rate as the dependent variable.

I obtain all data from the CBRT's Electronic Data Distribution System. The data set includes the period between 2004M01 and 2020M12.

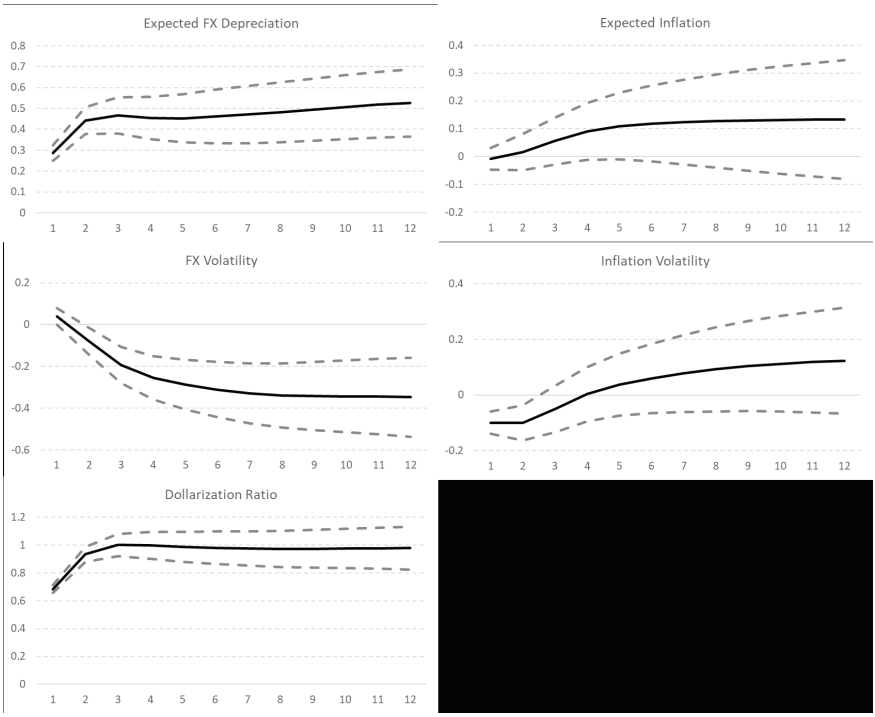
Empirical Results

In this study, I analyze the effect of inflation volatility, exchange rate depreciation volatility, expected inflation, and expected exchange rate depreciation on the dollarization ratio using generalized impulse response functions (GIRFs)[2] and historical decompositions with generalized weights (GHDs).[3] GIRFs and GHDs are computed using a VAR whose lag is chosen by the Akaike Information Criterion (AIC)[4]. I also include a dummy for the 2008-2009 crisis and the 2018-2019 crisis as an exogenous variable to the VAR model.[5]

Figure 2 shows responses of the dollarization ratio to generalized one standard deviation innovations and their 90% confidence intervals. Expected exchange rate depreciation increases the dollarization ratio and this effect is highly prominent. The previous literature also shows that changes in the exchange rate are an important driver of financial dollarization in Turkey (e.g. Civcir, 2003; Dumrul, 2010; Metin-Özcan and Us, 2007). In line with the portfolio theory, currency volatility decreases the dollarization ratio and the effect is mostly significant. Interestingly when Metin-Özcan and Us (2007) analyzed the effect of exchange rate volatility for the period of 1985M12-2007M14, they found that exchange rate volatility increases the dollarization ratio. It seems that the relationship between exchange rate volatility and the dollarization ratio changed in the recent period. Expected inflation seems to increase the dollarization rate as expected, but the effect seems to be insignificant according to the 90% confidence interval. Furthermore, an increase in inflation volatility seems to decrease the dollarization ratio initially but starts to raise the dollarization ratio after the 4th period. However, the effect of inflation volatility on the dollarization ratio is insignificant. Finally, GIRFs show that financial dollarization shows strong inertia as dollarization shock has a very large effect on the dollarization ratio.

2 GIRFs are first introduced by Paseran and Shin (1998).
3 I use GIRFs and GHDs because they are invariant to the ordering of variables. I also compute impulse response functions (IRFs) and historical decompositions (HDs) using a Cholesky identification strategy as a robustness check in Appendix A.
4 The Bayesian information criterion and the Hannan-Quinn information criterion also indicate the same lag order. The maximum lag order tested is 12.
5 Removing the dummy variable doesn't alter the results.

Figure 2: Generalized Impulse Response of the Dollarization Ratio to One Standard Deviation Innovations and 90% Confidence Intervals



Next, I am analyzing how each shock effects the dollarization ratio throughout the period by using GHDs in Figure 3. Historical decomposition analysis proposed by Burbridge and Harrison (1985) is a useful tool that allows us to compute historical contribution of each innovation in driving deviations of the dollarization ratio away from its steady state.

Figure 3 presents the dollarization ratio in deviation from its deterministic path and the contribution of each shock to the observed path. Figure 3 clearly shows that expected currency depreciation and dollarization inertia are most prominent drivers of the dollarization ratio in Turkey. The impact of exchange rate volatility on the dollarization ratio is also important in some periods. However, both expected inflation and inflation volatility don't have much impact on the dollarization ratio.

Figure 3: Historical Decomposition of the Dollarization Ratio with Generalized Weights

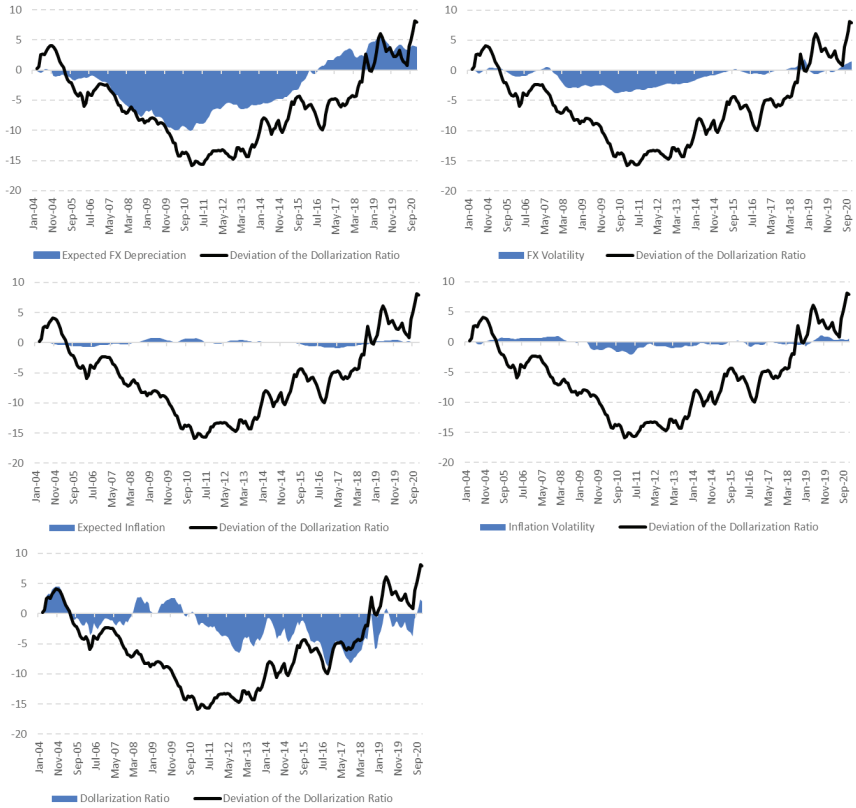


Figure 3 indicates that highly overvalued Turkish Lira decreases the dollarization ratio between 2006 and 2010. Turkish Lira began to depreciate after 2010 as the current account deficit reached unsustainable levels during that period. It can be inferred from Figure 3 that depreciation of Turkish Lira causes the dollarization ratio to increase starting from 2011. The effect of the dollarization shock to the dollarization ratio is highly volatile but prominent during the whole period.

I have also conducted a robustness test by estimating IRFs and HDs by the Cholesky identification strategy in Appendix A. They also provide similar findings. The most important difference is the effect of expected inflation and inflation volatility is on the dollarization ratio is significant in Figure A1. Another difference is the historical contribution of FX volatility is less smaller in Figure A2 whereas the contribution of inflation volatility becomes slightly more important.

Conclusion

In this study, I analyze the effect of inflation volatility, exchange rate depreciation volatility, expected inflation, and expected exchange rate depreciation on the dollarization ratio using generalized impulse response functions and historical decompositions with generalized weights. Our results show that changes in the expected exchange rate and the dollarization inertia are the most prominent drivers of the dollarization ratio in Turkey. The impact of currency volatility on the dollarization ratio is also generally significant. When I analyze the contribution of each shock historically, the results of historical decomposition show that appreciation in the Turkish Lira decreases the dollarization ratio between 2006 and 2010 but after 2011 depreciation of the Turkish Lira drives the dollarization ratio upward. Our results clearly show that depreciation in the Turkish Lira clearly the main cause of financial dollarization Turkey and policies that support Turkish Lira are needed to combat financial dollarization in Turkey.

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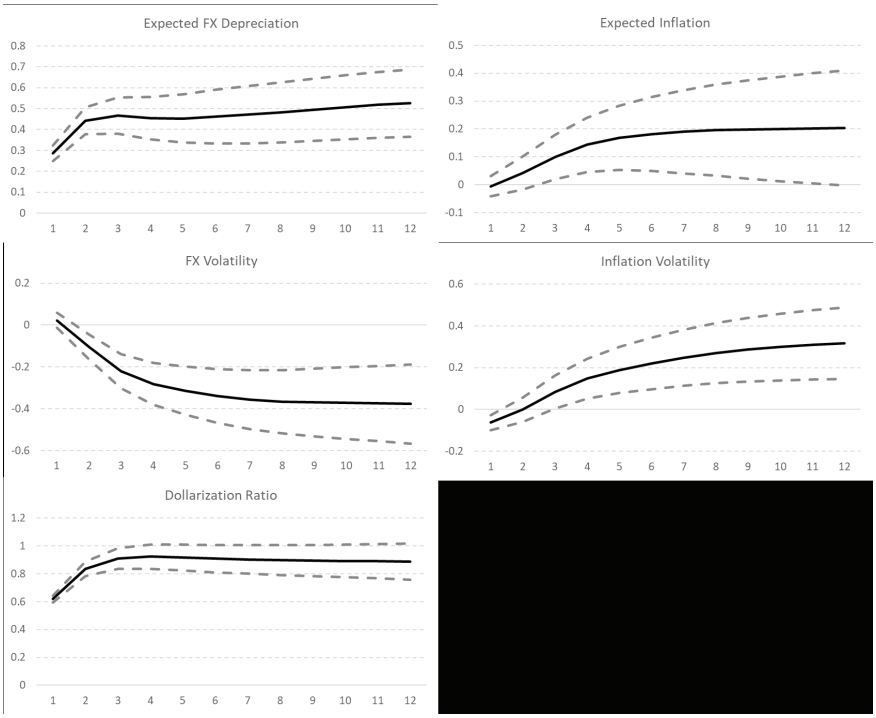
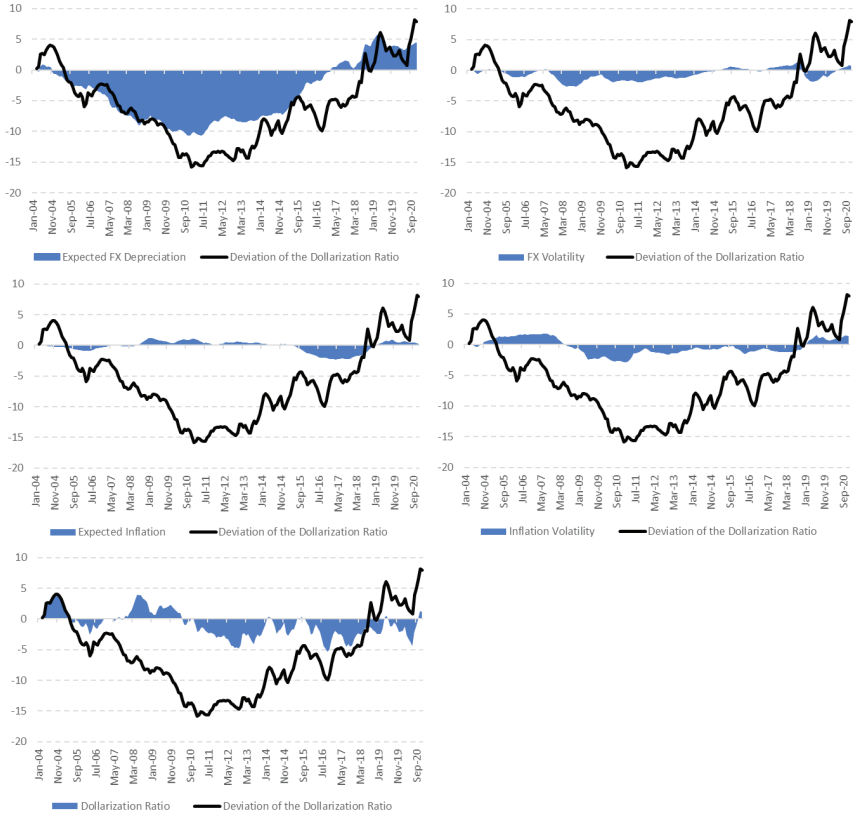
Appendix A: The Robustness Checks

Figure A1: Impulse Response of the Dollarization Ratio to One Standard Deviation Innovations and 90% Confidence Intervals (Cholesky Identification Scheme)



Note: The ordering of variables in the Cholesky decomposition is as follows: expected exchange rate depreciation, exchange rate depreciation volatility, the expected inflation rate, inflation volatility, and the dollarization ratio. I test also other orderings, the results are similar.

Figure A2: Historical Decomposition of the Dollarization Ratio (Cholesky Identification Scheme)



Note: The ordering of variables in the Cholesky decomposition is as follows: expected exchange rate depreciation, exchange rate depreciation volatility, the expected inflation rate, inflation volatility, and the dollarization ratio. I test also other orderings, the results are similar.

Chapter 8

THE INFLUENCE OF SOCIO-CULTURAL AND IDOLS ON WOMEN'S CLOTHING

(PANTS SAMPLE)

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1. INTRODUCTION

Although clothing emerged in the past only to protect it from external factors, it later took on various tasks. The phenomenon of clothing has included many factors such as sociological, political, artistic, belonging to a group and gender discrimination from past to present. People chose the clothes they preferred considering their gender, identity, social values, economic power and many other factors that we can count. It should be known that clothing is also a means of communication and identifies people's identity, gender, etc. It is also very effective in communicating to others. If we refer to the concept of gender in clothing, the distinctions made between men's and women's clothing have taken place in line with both religion and society's codes. Trousers, which are especially a type of clothing, have become a social code as men's clothing. If we refer to the word meaning of trousers in its most general definition, "Trousers are defined as a type of clothing that starts from the waist and goes down to the ankles" (http://www.tdk.gov.tr/). The origin of the trousers is based on the fact that the Venetians called the tight and long panties trousers as an expression of their love and respect for St. Pantaleone. Pants XVI in the kingdom of France. century has been recognized through a commediadell'arte type. Trousers played the role of a rich and stingy old man wearing long pants and very special clothes. In a figurative sense, trousers are said to be "someone who can disguise many and play every role to achieve their goal." This type of Italian comedy is known for the dance figure called "pantolonade" (buffoonery)"(Bard, 2012: 8). Although the description of the trousers may seem ordinary, its history is not so ordinary. When we look at the cultural background of trousers, it has become a symbol of male identity in social codes, and trousers have become a garment that expresses his power and power as men cannot be thought without pants. When the history of fashion is examined, in some countries in Europe in the past, while men could wear skirts or long dresses, women wearing pants was seen as a problem. While this is the case in the West, and among Asian societies, it does not resemble today's trousers whose length ends at the ankles, but Turks, Chinese, Mongols and Persians also wore trousers for both men and women. These societies valued trousers because they were riding horses. Asian nomadic women with trousers were later introduced to modern Europe through Hungarians and Ottoman Turks.

The hatred felt for trousers in the Western Ancient world lasted for a long time. They described people who wore long trousers as "Barbarians". But M.S. During the Roman Empire in the 1st century, soldiers began to wear trousers to conquer cold places and to protect themselves from cold"("…",Pants On Women, 2009). "Jews and

Phoenicians also recognized the trousers over time. Sarmatians, Daks, and Lydians are supposed to have bought the trousers from the Persians" (http://merakediyorumgrubu.blogcu.com/ilk-cagdan-gunumuze-pantolon/4656854). B.C. Human headgear and trousers were found in the finds belonging to Huns in Urga and Noyun Ulu on the shores of Lake Baikal in Russia in the 1st century. M.S. II. and IV. Silk fabrics and leather trousers were found on male and female mummies of the first Hun Turks in the 16th century"(Ayhan, 2013: 3). "However, to Latin Europe IV. They found a new type of clothing that was cut and sewn in two pieces instead of the clothes that came in the 16th century and formed by wrapping them by some tribes. It is thought that the first pants, skirts and a kind of shirt clothing came from Asia to Europe"(Vassilev, 2004). Although the trouser clothing culture originating from Asia has begun to be worn by men in the west, it is seen in the information obtained from the sources that women are not allowed. The best example of this is that "According to the law adopted in 1800, women in Paris, the capital of France, were prohibited from wearing trousers without permission from the police. The French government abolished the law formally in force in 2013, although it is no longer actively implemented today. NajatVallaud-Belkacem, the French Minister of Women's Rights, stated in a statement that the ban was against the equality of women and men guaranteed by the Constitution and the European Convention on Human Rights" (http://www.haber7.com/guncel/haber/985944-kadinlara-artikpantolon-serbest).

"Trousers have not been accepted for a long time in western cultures in both genders. Some religious groups restricted women from wearing trousers. Women wearing trousers harassed and criticized" (Yashfeh: 2)." Trousers are accepted as traditional men's clothing and skirts are considered traditional women's clothing" (Acheson, 2012). According to the information obtained from the sources, it is known that their churches are strict in this regard.

As mentioned before, pants have always been a problem in the historical development of fashion. It has been discussed that women should wear this type of clothing. When the historical sources of fashion are examined, the history of trousers and the process of wearing trousers for the first time, even if the social events experienced are not given in detail, but today's social perspective of the trouser process and the prohibition of trousers are not mentioned. In this study, it is aimed to reveal the information about how the revolutionary trousers emerged in women's clothing, the factors affecting women's trousers clothing, how women and designers adopted and used this revolutionary new fashion. For this purpose, the following sub goals have been established:

- How did the trousers come about?

- How was the socio-cultural and idol factor affecting the use of trousers by women in the West in the historical process?
- How was the socio-cultural and idol factor affecting the use of trousers by women in Turkey in the historical process?

2. METHOD

The research is a survey model and descriptive method has been used. In the descriptive survey model, it is an approach that aims to describe a past or present situation as it is, and the event, individual or object subject to research is tried to be defined in its own conditions and as it is. (Karasar, 2013: 77). Detailed literature on trousers, which is a piece of women's clothing, has been scanned within the scope of the study. In the literature review, literature reviews were made to examine the issue of women's trousers. We have benefited from domestic and foreign books on fashion and sociology, theses, articles, statements and various fashion websites.

Especially women's trouser clothing caused a lot of controversy in the West, it was found in the scanned documents that it was influenced sociologically and culturally, and that the idols of the period also directed women's trousers. Both in the west and in Turkey, data on women's trousers have been analyzed chronologically together with the factors affecting them, and it has been tried to be interpreted by supporting them with visuals.

3. FINDINGS and COMMENTS

In this section, firstly, findings regarding the history of women's trousers in both the West and Turkey are given. Afterwards, the socio-cultural events that affected women's trousers clothing and the idols who shaped women's trousers were analyzed and interpreted by analyzing both written and visuals according to chronological order.

• History of Women's Trousers in the West

"Trousers, which are considered to be comfortable by women all over the world today, actually date back to very past times. According to researcher Gundula Wolter, stone age rock painters have confirmed that trousers were known "10,000 years ago. According to some researchers, the history of trousers is estimated as the 4th century" (http://www.calisirtekstil.com/pantolon-tarihcesi/).

"Before the trousers defined as "Turkishtrousers" in the West came to Europe as a result of a cultural interaction from the Middle East, Roman and classical Greek men, medieval European lords and women wore

skirts. On the contrary, Turkish women, Iranian women, women living in the Eskimo cold plain, and peasant Chinese women, Chinese soldiers and high-class Chinese ladies wore trousers while riding a horse. In the prehistoric period, pants were seen as the invention of the Persians. That is why the Persians were seen as barbarians by the Europeans. Persian women, who are seen as barbarian women, wore trousers while riding, especially as a result of nomadism, which is a part of their lives. Later, the interior of the Roman empire collapsed and the peasants wore short dresses and occasionally called barbarian trousers, while feudal European nobility men and women continued to wear long dresses. European women were not welcome to wear trousers, while soldiers were able to wear trousers" (Kidwell and Steele, 1989: 13).

Figure 1. Amelia Bloomer
(http://hubpages.com/hub/A-History-of-Trousers-and-Pants-in-Western-Culture)

"In the times of Victorians, women were forbidden to wear trousers and short skirts because they must preserve the chastity of their legs. They have firmly denied that the sexes are the same. Women wore two-sleeve garments only on special occasions: first in fancy clothes (Turkish trousers became popular), sometimes for hunting, as part of a navy suit, and finally as panties.Very few peasant and pioneer women wore trousers while working. The trousers ending at the ankle at the end of the 18th century became long trousers, that is, modern men's trousers. Women started to wear trousers in the second half of the 19th century. Amelia Bloomer designed the skirt and the Bloomer Costume Turkish Trousers in 1851 and presented it to the public for the first time with The Lily newspaper, which she owned and edited" (Kidwell and Steele, 1989: 14). "Bloomer, in his own words, "has been praised and condemned,

glorified and buried under the earth. “Bloomer and his friends stopped wearing the costume after a few years because of the amount of ridicule and reproach the costume caused” (Crane, 2003: 151). “However, he was not the first to invent and defend these pants. Elizabet Smith Miller wore these pants for the first time, according to Amelia Bloomer. “According to Boston reporters’ notes, the women in the city did not get out of breath while walking in Bloomers outfits, it was claimed that there were even Victorian women skating, having fun and being active” (Bard, 2012: 96-136). “Some historians have argued that western society admired Middle Eastern styles and “Turkish pants” during the early 19th century.

“Certain consumption constraints came as part of fashion in the 1920s. Most trouser wear was restricted during the jazz age. Trousers were regarded as beachwear leisure wear, rider pants and eventually blue Jean. Blue Jean has been recognized as the first product to bring men and women together in trousers. But trousers were only commonly worn among young people in the 1940s and 1950s. Trousers were still not accepted for work or on the streets of cities. Women were seen wearing black t-shirts and white overalls in Harpers Bazaar advertisements in the late 1960s. Until the 1970s, women were prohibited from wearing trousers in offices, in the public sector and in places where they were as trainers” (http://www.bianet.org/bianet/bianet/6682-pantolonun-tarihi). In the 1970s, women’s movements provided a social reform that affected trouser clothing. In the 1980s, women were often seen in men’s styles. Women wore unisex clothes. Maximized styles continued to be adopted by women.

- **History of Women’s Trousers in Turkey**

“Throughout history, Turks have been people who spent their lives on horseback. They required clothing resistant to stones, cold, and long horse rides. The trousers were originally developed for people who lived on horseback to move comfortably and are of Asian origin. The trousers are preferred because they do not cause scars as a result of friction as they cover the legs of the rider on horseback” (Tez, 2009: 244). “It is known that in the pre-Islamic period, women used the trousers they wore with boots to ride horses and to move comfortably in mountainous regions. Here, we may be talking about the baggy trousers, not the modern women’s trousers. This under-waist garment, which has passed into our language from Persian, has been mentioned as “salbar” of Kazakh Turks in Central Asia and “salbar” in Anatolia, has been used in Turkish women’s clothing from pre-Islamic times until today” (Doğan, 2011: 86, 87).

Figure 2. Anatolian woman with şalvar
(Koçu, 1967: 25)

"In addition, leather pants were indispensable clothing for travels. The narrow-legged pants were required to wear boots and knee pads. According to the information, ancient Turkish women wore about 90 kinds of şalvar. Narrow, shirred, short, long, ankle-tied, knee-length, straight-cut or bias-cut şalvars are the basic clothing of Turkish women" (Tezcan, 1983: 260). "The şalvars worn by men and women were a comfortable undershirt. In daily life, clothes are made of fabric, while in wars and travels they are made of leather. One of the important elements that complement the Selçuk and Ottoman period Turkish clothing-dress is the shawl. The upper part of this garment, which is worn on the lower part of the body in daily life, is loose-fitting, and the hems are separately and widely sewn. It is made of silk and cotton fabrics such as wool, silk, atlas, Hatai, Üsküfe, Kutnu and Selimiye. There are various shapes of şalvar according to the sewing features. Its shape with narrow leg descending from the kneecap to the ankle is called "Potur", and its shape with short, wide cuffs contracted on the kneecap is called "Çakşır"." (Ertürk and diğerleri, 2013: 27).

Over time, the use of trousers has lost its prevalence among women in Turkish society, and trousers have become a male-specific garment. With the Republic, especially the changes made in the clothing made trousers become widespread and used among women again. Women's trousers fashion, which started with pajama trousers cut, turned into different shapes, styles and models over time" (Doğan, 2011: 86). Today, it has become an indispensable garment worn by both men and women with its "Unisex" fashion.

Figure 3. The transition of Turkish women from "şalvar" to trousers (Ayhan, 2013: 10)

- **Sociological and cultural factors affecting women's trousers in the West**

"Socio-cultural factors are one of the factors that are always effective in women's clothing and determine their clothing habits, purchases and preferences. Socio-cultural factors; culture, subculture, social class, counseling groups, family" (Zhumagaziyeva, 2009: 53). "Culture is a learning process. The traditions formed by the culture pass from generation to generation. Behaviors created by past generations are monitored. Subculture, on the other hand, is a subdivision that predicts a particular lifestyle or behavior of the culture. Mostly regional in nature"(Aydinç, 2001: 35). Clothing also varies in every society as a phenomenon within the cultural structure. Dressing according to certain rules without going beyond certain norms also means belonging to that society. "Family members also have a socio-cultural effect on people's dressing style" (Akyüz, 2006: 24). It is known that trouser wear is not accepted by women in every society. The sociological movements that emerged from time to time also brought the clothing bans to the agenda.

"In the US, members of the American women's movement have continued their backstage activities from the turn of the century to the turn of the century by forming communities, holding meetings, writing books and articles, and looking for ways to popularize the simpler and more casual style of clothing. In 1892 and 1893, clothing reformers organized a "Dress Symposium", where they presented three designs that included either a trouser skirt or a pair of pants. Although symposium members had a much more positive response than forty years ago when they went out

in these clothes, they eventually stopped using this garment because they found it too radical" (Crane, 2003: 145,151,152).

"In France and Britain, the clothing reform movement was not as pronounced as in America. The understanding of equality and freedom brought about by the French revolution has not been reflected in women's clothing. After 1715, Paris becomes a fashion center and fashion spreads in an aristocratic sociality based on family and privacy values. Revolutionary women who followed French fashion could never wear pants. In 1852, the French woman writer of L'Almanach des femmes enthusiastically welcomes the feminist dress code in America. According to a friend of Jeanne Deroin, the German press has put this issue on the agenda. However, he has been distant to French thinking, that is, to the right dress reforms of women" (Bard, 2012: 40, 102, 103).

"Although the Amelia Bloomer outfit in England in 1851 allowed women to have the same status as men and to act as comfortably as men, as women began to seek their rights and wanted to be as free as men in society, the Bloomer dress, which was seen as radical in the society and was a major failure, It is a product of the advanced reform movement against the restrictive body tightening, too loose and complex clothing worn by class women" (Davis, 1997: 191).

Bloomer outfit is also a cultural interaction. The Bloomer outfit, which is inspired by the Turkish baggy trousers that are not in the style of European clothing, is therefore referred to as Turkish trousers in the sources. In the light of the above information, it can be thought that, in addition to social pressures, family pressure in both France and England also affects trouser clothing. "Another social event in the 1920s is the entertainment life that emerged after the war. American dances, colors, dressing styles and women's social life in a libertarian life have affected European fashion" (Zengingönül, 2010: 79). "The "Charleston trousers" belonging to the dance schools and charleston dance style that were opened during this period are a model with a narrow kneecap and extending from knee to foot" (Ertürk and diğerleri, 2013: 18). The youth subculture that emerged in the 1950s created their own clothing styles, the youth who rebelled against the social class hierarchy changed the spread of fashion from the upper class to the lower class, and now the fashion that has spread from the lower class to the upper class has begun to be mentioned. "The distinction in women's and men's clothing, which continued until the 1960s, began to decrease with the formation of the opposite culture that developed among university youth. With women's rights and liberal movements, the appearance of both genders began to resemble in the mid-60s" (Gottdiener, 2005: 322)."Even though it is not fashionable, women's trouser wear has started an unstoppable rise. In

1970, there was an epidemic of trousers. For the night trousers, there were those with a Chinese flair, and extremely loose pleated "Tent trousers" made of thin fabric. These trousers, made of plain or printed, are worn with loose, satin and long vests. Vests and trousers are as loose as they can get" (Zengingönül, 2010: 52).

"The 70's and 80's were the years when women's rights and freedoms were discussed. Feminist dress is one that symbolizes both practice and indifference. The women are wearing overalls and jeans" (Evans and Thornton, 1989: 7). Trousers, which were used by women's rights advocates or a few pioneer women as a demonstration element, are now a part of daily women's clothing.

- **The impact of socio-cultural factors on women's trousers in Turkey**

Turks preserved their cultural values for a long time and continued the traces of Turkish culture in their dressing style. Traditional clothing items, which are loose and draped in the layered dressing culture, are similar to men and women, and the main elements are şalvar, cardigans, shirts, robes and caftan. "Since Turks are a nomadic society originating from Central Asia, they discovered trousers long before the European society. Due to the search for functionality, "şalvar" and trousers have become indispensable elements of eastern clothing. In the 16th century, both men and women in Ottoman society used more comfortable clothing such as şalvar" (Himam, 2013: 95). "According to social plates, women's clothing can be subjected to a distinction such as the clothing of urban women and Anatolian women other than palace clothing. Two types of attention draw attention in old women's clothing are home wear and street wear. Regional differences can be found in women's clothing in Anatolia, but in general, women's clothing consists of three skirts, şalvar and shirts"(Tezcan,1983: 262).

"After the proclamation of the Republic, the change in women's fashion in Turkey has been faster and more radical than men's fashion. After 1925, the woman was able to throw off the veil and became a close follower of the new understanding and form revolution in European and gender clothing" (Ertürk and diğerleri, 2013: 29). In the years after the foundation of the Republic and immediately after, Turkish women followed fashion by preserving their own culture to a certain extent, in line with their position and economic possibilities. During this period, Anatolian women, who could not get out of social restrictions, continued their local clothing, while women in the city adapted to fashion like Istanbul and Ankara. In Turkey, women wearing trousers in society showed parallels with the industrial revolution after the war period in the

1940s. The şalvar worn in Anatolia has turned into men's trousers over time. With the wearing of trousers in public, the trousers, which were removed from the position of workwear and men's clothing, became the symbol of women's liberation"(Bacınoğlu, 1995: 32-36). Migrating from rural areas to cities, Anatolian women continued their traditional clothing style in cities, could not adapt to urban clothing style and had difficulties in adapting to urban culture. They were able to wear trousers under long dresses.

Figure 4. The effect of migration on women's trouser clothing (Anonim, 1999: 75)

Along with women's movements in Turkey, women have increased their role and equal rights in society and family, and feminist magazines have emerged with the aim of informing women and defending their rights. All these social events reflected on women's clothing as well, causing women to wear trousers and diversify their fashion in the 1980s. In today's Turkey, women's trousers have become a more preferred type of clothing in society and in the family.

- **The effect of the idol factor on women's trousers in the West**

Fashion and idol factors have a significant influence on women's clothing. Idols and latest fashion trends in music, cinema, dance and other art branches have always influenced women's clothing. This effect was also seen in trousers, which have an important place in women's clothing. "After the 1920s, it affects European fashion with its American dances, colors, and an extraordinary dressing style. The Charleston dance has replaced Tango. Fashion designers have also designed clothes suitable for the rhythms of this dance. Thanks to this dance, women wore charliston trousers that were tight at the knees and that were wide below the knee"

(Komsuoğlu and others, 1986: 14). "In America in the 1930s, the adapted view of men received limited social acceptance. During this period, women such as Marlene Dietrich and Katharine Hepburn influenced women's trousers by wearing trousers and suits designed for the idols of the period. In particular, Marlene Dietrich's outfit was designed by Parisian fashion designers, and even though very few women wore it, she was seen and followed as stylish in women's fashion" (Gottdiener, 2005: 314).

Figure 5. Katharine Hepburn
(http://www.sistersinskirts.com/PDF/She-Wears-the-Pants.pdf)

"De Marly quotes the following passage from Evelyn Waugh's descriptions of London in 1943: *London girls with hair sculpted like movie stars, casual pants, and flirting with soldiers ...*

A group of Hollywood-made movies in the 1950s is a new understanding of adolescent identity that millions of young people would later try to imitate It brings: the myth of the working class rebellion. In these movies, the actors wear a costume consisting of jeans, a black leather jacket, and a T-shirt. Expressing the frustration of the working class youth very effectively, these films led the audience to identify with the characters in the film and adopt their style of clothing as an expression of their contrast" (Crane, 2003: 165,237).

Figure 6. "The Wild One movie"
(Akyol, 2007: 21)

"The younger Audery Hepburn is undoubtedly the actress who best represented the new modern female style, the opposite of Marilyn Monroe in the 1950s. It is also the ideal representative of women's trousers" (Bard, 2012: 264). "When he was wearing trousers, he wore flat shoes and no makeup. The minimal dress combination of a black plain top, cigarette pants and black ballet flats are Audrey Hepburn's most imitated garments. Its style, which has been imitated by its numerous fans, has played a major role in the acceptance of the pants" (Akyol, 2007: 27). "Dancer Brigitte Bardot makes a powerful argument alone, with her cotton shorts that wrap her hips and legs" (Bard, 2012: 265).

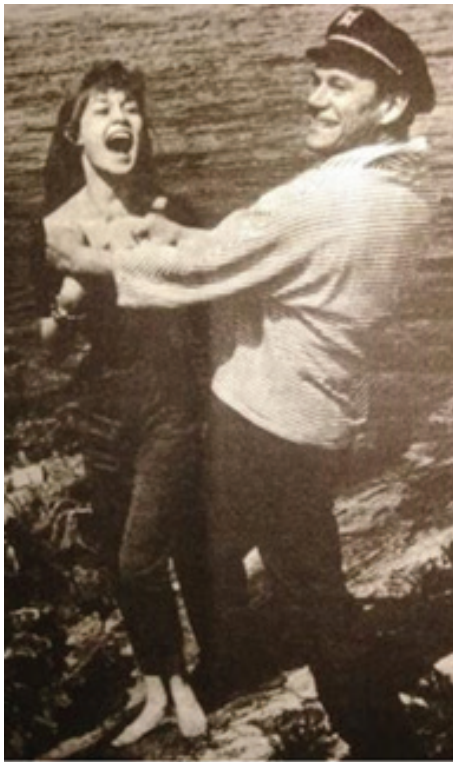

Figure 7. Bridgitte Bardot, 1955
(Bard, 2012: 266)

"In Woody Allen's trendsetting film Annie Hall (1977), Diane Keaton's wearing Ralph Lauren men's shirt and trousers played a major role in the spread of Unisex clothing in daily life. These clothes have also been the basis for the formation of large size fashion" (Akyol, 2007: 22). The fashion for blue jeans and stretch pants swept the world in the movie "Grease" in 1978. "The rebellious image of Elvis Presley became very popular with young people in the 1950s. With Elvis Presley, the style of clothing adorned with jeans, floral shirts and slogans has become popular. Layered petticoats worn by girls in the 1950s are now a thing of the past"(Altınay and Yüceer, 1992: 135).

"In the early 1970s, together with Vivene Westwood and business man Malcolm McLaren, they opened their punk clothing store called "Let It Rock", and the clothes that were not related to the fashion they sold in the shop attracted a lot of attention from the youth. Trousers, inspired by cycling outfits, t-shirts with aggressive slogans were liked and purchased"(Dereboy, 2008: 178,179). In the 1980s, hip-hop and rap music were influential, and the baggy and low-waist pants worn by singers such

as Eminem and Snoop Dog became the preferred trouser model of both young girls and young men. “The grunge music trend became popular in the early 1990s and emerged as an alternative to heavy metal music. Nirvana, a grunge music group, especially influenced young people with their scruffy and reckless clothing styles. Grunge groups generally preferred casual wear such as a checkered shirt, a second-hand slouchy sweater, worn jeans, boots and Converse sneakers that could be bought as cheaply as possible”(Akyol, 2007: 38). Still today, women’s trouser styles are offered by idols.

4. The effect of the idol factor on women’s trousers in Turkey

“Art started to develop with the Republic. At the same time, western art was followed. What happened in the arts in the West has also affected our country. Female stars such as Marlene Dietrich, Katherina Hepburn and Greta Garbo took the leadership of fashion from the ladies of the aristocracy and carried the Parisian fashion to the whole world and our country with American cinema. It is very fashionable to dress like them and look like them. It emerged after the First World War and the epidemic took place in Turkey between 1925-1927” (Ormanlar, 1999:45-53). “In our country, women followed this fashion, and charliston trousers fashion became widespread among women and youth” (Komsuoğlu and others, 1986: 14). In the 1950s, rock music and Elvis Presley style, blue jeans started to form the youth fashion. Towards the end of the 1960s, the artist Gönül Yazar preferred the men’s team for the 45 album cover art. In the 1970s, the clothes of Yeşilçam movie stars began to be imitated. One of the artists of the period, Hülya Koçyiğit followed the fashion of overcoat, long boots and flared trousers worn over shorts. In the 1980s, Ajda Pekkan combined colorful overalls with headbands and various accessories.

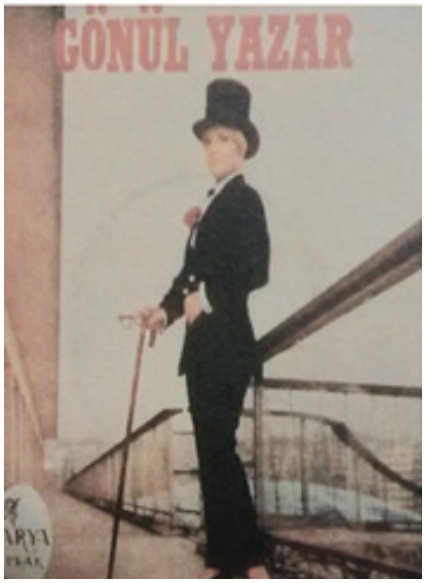

Figure 8. Gönül YAZAR
(Anonim, 1999: 198)

"Images of Michael Jakson and Madonna, appearing on the world stages in the 1980s, swept the world in epidemics. Imitation of the clothing of music and performers identified with youth all over the world has continued to be valid in Turkey" (Pektaş, 2006: 196). Women and youth imitated Madonna and Michael Jackson's clothes. Michael Jackson's short black trousers have also taken their place in women's fashion. Yeşilçam films also had an effect on women wearing trousers. Popular and followed female artists of Turkish cinema, Türkan Şoray, Filiz Akın, Fatma Girik and Gülşen Bubikoğlu fans, imitated the clothes they wore in the films and became fashionable.

4. CONCLUSION

Trousers, which are accepted as a symbol of gender in women's clothing, were influenced by socio-cultural factors and idols, and it was observed that women started to wear trousers in historical time. Women's trouser clothing, which is banned from official institutions and caused reactions in our country, especially in the West, has undergone changes in the historical process and has become an indispensable clothing for women today.

The aging feminist movements in the West and the trouser revolution that took place in the 19th century under the leadership of Amelia Bloomer caused great reactions. Bloomer trousers emerged in the West as women

wanted to be able to move freely and have the right to dress equally with men. These trousers are a trouser model designed by being influenced by the şalvar in Turks. By the 20th century, women in the West can do sports with Bloomer trousers. In Turkey, traditional şalvar continued to be worn.

After the First World War, the Tsarliston fashion came and new trousers models were produced by Western designers. These trousers are also worn in our country. However, in our country, it was possible for women in Anatolia to wear trousers in the 1940s. Turkish women continued to wear trousers under their clothes for a long time. Female idols, who entered our lives with Yeşilçam and Hollywood cinemas, especially affected trouser clothing. Women have begun to imitate the clothing of their favorite idols. In the 1950s, the blue jeans worn by the lower class became the fashion worn by both women and men, especially when the rebellious blacks and young people in America revealed the new clothing culture. In the 1970s and 1980s, it has become uncomfortable for women to wear trousers. Today, women who wear trousers are substantial. It is possible to say that trousers are more preferred in terms of providing ease of movement. Fashion designers constantly innovate in their trouser designs and ensure that they satisfy women in terms of aesthetics and fashion.

As a result, although there are prohibitions and reactions in the historical process, with the influence of socio-cultural and idols, women have adopted the trouser fashion and made it continue until today. Described as a symbol of freedom and power, today a wide variety of models of the trousers are produced and preserved their place.

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Chapter 9

[1]THE IMPORTANCE OF INNOVATIVE PUBLIC MANAGEMENT AND WORKFORCE PLANNING

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I. INTRODUCTION

Management science, which is described as the oldest of the arts and the newest of the sciences, is valid everywhere human beings exist. When management is mentioned, sometimes it is understood as a process, and sometimes as organs (individual or Group), which are the elements of this process; and sometimes, management is dealt with as a group of information, and how managers are going to use this information in their activities such as making decisions and leading. (Koçel, 2003: 15). As information accumulates and becomes learnable in business management, the process of management to become a profession will accelerate. Undoubtedly, businesses, which are social entities, are like live organisms that breathe together with their host employees. A human being is both the inevitable factor in the production process and the target of production. Management scientist Jerome Wiesner argues that "unused material resources are not necessarily lost, but untapped human resources are indefinitely lost." In today's business world, no matter how substantial the other material resources of an organization are, if it does not have efficient human resources, its probability of success will be low. It is not easy to achieve productivity and job quality targets with an unsatisfied labor force and low motivation for success. In this regard, it can be stated that human resources management has two primary purposes: To increase productivity and to increase the quality of the business life (Sculer, 1985: 35).

Today, the high pace of technological changes in the industrial field and the increased importance of strategic planning necessitate a well-trained and well-educated rational workforce. The developments in the workforce and new concepts in the managerial approach have increased the importance of increasing the productivity of the labor force and planning the workforce.

Nowadays, the managers' paradigms have begun to change. The change in paradigm, which is "a pair of eyeglasses" and "a mental map" that people use to see around and perceive their surroundings, shows that managers are influenced by the environment and management culture of the period in which they live. The main principles of scientific management started to be established one after another in the USA after 1910. Following the teaching of Taylor, Henri Fayol's Management Theory, Max Weber's Bureaucracy Model, the Neo-Classical Approach, and the New Management Approach, which was introduced in the 1980s and is still developing to this day (Benligiray, 2006: 15).

2. CONCEPTUAL FRAMEWORK

Ensuring the development and reaching determined targets in due time in developed and developing countries bring along workforce planning. It is always the human being that establishes and manages the business, produces, consumes what is produced, and gives life and color to the business. Therefore, businesses owe their existence to humans, and the human being guarantees their sustainability.

In the study, workforce planning, which is the driving force of development and essential for organizations at all levels, and norm cadre applications have been discussed, and a door has been opened for the studies rarely conducted on the topic. In order to ensure terminology cohesion, it is deemed valid to explain specific definitions and concepts presented below:

- **Management:** It is sometimes understood as a process, sometimes as the organs (individuals or groups) that are the elements of this process, and sometimes as a bunch of information, and the emphasis is placed upon how managers are going to use it in activities such as making decisions and leading (Koçel,2003: 15).

- **Manager:** A manager is a person who carries out work through others. On the other hand, a professional manager is a person who implements a group of information that is learnable and that has become a profession (Koçel, 2003: 20).

- Culture and Management Relations: Culture is the total sum of learned and shared values, beliefs, behavior attributes, and symbols. Each business organization is a small community and a society. Therefore, this small society will have "a set of shared values", that is, a culture. As globalization becomes more widespread, the external environment elements of business change and this change forces the cultures of businesses to change as well.

- Organization Culture: It reflects the culture of each business onto the management techniques used by that business. In other words, "organizational behavior" is a derivative of the business culture.

- **Manager Improvement:** It makes the managers sensitive towards the role they play in society through the structure and functioning of the organizations (Petit, 1975: 455).

- Organization Improvement: It aims to improve the organization's performance as a whole (Mifflin,1971: 356).

- **Human Resources Management**: It contains all functions and works to be managed effectively in a way that will benefit the organization,

individual, and environment in compliance with the laws (Kaynak et al., 2000: 16).

- **Job Analysis:** In order for the determined goals in businesses to be realized, employees and the jobs they perform are categorized under various groups named as divisions, units, and departments. In order to ensure the effectiveness of business activities, it is necessary to determine the boundaries of these groups, identify their characteristics, and describe their tasks. So, all activities done to identify various details and characteristics regarding the jobs fall in the scope of job analysis.

- **Job Descriptions and Job Requirements**: The data obtained in the job analysis, which is a process in which data related to the job are collected and examined, are then arranged and transformed into job descriptions and job requirements.

Job description is defined as the documents that are compiled and formulated during the job analysis process.

These documents usually contain the following information:

- Describing the job

- Tasks included in the job

- other jobs related to the job and supervision required by the job.

Job Requirements: These include the characteristics that the individual must have to carry out the job correctly. They are prepared via the data collected in the job analysis process and after job descriptions are completed, based on specific tasks and responsibilities included in job descriptions. The information included in job requirements contain:

Education,

experience,

age,

and mental and physical capabilities.

- **Estimation**: It helps managers at all levels regarding what to do to achieve the goals (Koç, 1995:2).

- **Control**: Some parts of the systems that have the workforce in their organization are under the control of the behaviors of the managers. For example, issues such as how many people will be recruited and when they will be employed are decided by the management. One expected benefit from developing a theory in terms of control is to ensure the changes to be introduced to be in the desired direction.

- **Design**: When an organization is established, or an existing organization is re-organized, it is possible to design the structures and operation channels of the said organizations within certain boundaries.

- Workforce Flow: Both the individual leaving the organization and recruiting new personnel into the system are considered workforce flow. Expressing workforce flow as a ratio rather than in numbers usually serves the purpose more. Determination of workforce stocks and workforce flows in a system brings forth two critical issues in workforce records. These must contain the workforce stocks and workforce flows in a period appropriately. However, while workforce stocks are determined appropriately in practice, there is usually insufficient information about workforce flows in such records (Koç, 1995: 6).

Workforce Planning Process: It is the process in which the available qualified workforce in the appropriate quantity needed for a job to be performed in the future is ensured to be included in the workforce (Wikstrom, 1971). Alternatively, definitions appropriate for sectoral needs can also be made. For instance, healthcare workforce planning can be expressed as the planning, employment, and management of workforce that will provide healthcare services by envisaging the needs of the society that will emerge in the short, medium, and long term and taking into account the ratio between the geographical, economic, and sociocultural properties and cost-efficient provision of healthcare services (YOK, 2010: 3).

- Norm Cadre: It refers to the optimal staff that an organization or an institution needs in order to perform its duties effectively and efficiently; in other words, it is the determination of the staff in terms of quantity and quality, which is neither more than the need nor less than what is required (Norm cadre, 1998: 3).

To define it in different terms, norm cadre is "the determination of the required number of personnel in terms of their qualities according to the workload in a workplace" (Timur, 2008: 1).

3. MANAGEMENT AND PLANNING

Human Resources management is carried out in a particular order, and they are in constant interaction with each other. It is made up of seven essential functions specified below:

Planning,

staffing (providing, selecting, placing),

valuation,

rewarding,

developing-improving,

industry relations,

protecting.

The first step of the process given above is the "planning function". The planning function, in a sense, is the most essential and primary function that provides the data needed for the other functions to operate.

If planning is carried out properly, it will not be necessary to go back each time, and other functions will be performed soundly. For example, if it has been determined that the organization has to recruit 15 managers candidates every year within the next three years, the staffing function will determine the methods that will meet this need in the best way possible. It is doubtless that the fundamental purpose of staffing function is to find and select the individuals who will benefit the organization the most. Whether the individuals employed have been successful or not is evaluated through the valuation function. If these individuals have not shown the desired performance, the reason for this should be searched in the insufficiency of selection methods.

4. WORKFORCE PLANNING

According to the classical view, each manager is also human resources manager. Each manager responsible for directing the workforce to the targets in the production process will perform certain functions and jobs related to human resources during his/her management. Workforce, which is one of the main elements of competitive edge, should be planned appropriately, and necessary effort should be made to improve its quality constantly. Since workforce planning is the function in which personnel stocks and personnel flow are checked, it is clear that the system must have a dynamic model to perform these functions. For workforce planning to be done appropriately, it is necessary to determine personnel stocks and personnel flow in the system in the first place. For instance, as the jobs that need to be performed at any level in many organizations are determined, the quantity of the personnel that will do these jobs is also inevitable. Therefore, personnel stocks are usually endless numbers and are not random variables. Paying attention to the preservation of personnel stocks will naturally bring some limitations on personnel flows.

On the other hand, as employees leaving the organization are primarily an outcome of personal decisions, quitting the job will be defined as a "random variable." Hence, in order for planning to be performed effectively, it is necessary to put forth what quantity of personnel stocks

and flows have been predetermined and what quantity of flows are random. In line with the information above, in planning human force in their organizations, managers can achieve some results by searching for answers to the following questions as "horizontal transition model" (Koç, 1995: 2):

If the current status of personnel loss and promotion continues, how will the classification of the personnel working for the organization at any time in the future get affected in terms of age, years of service, and their positions?

- How should the rate of promotions and the number of personnel to be recruited be determined to achieve a specific organizational structure in a given period?

- What will the effect of the growth and downsizing of the organization be on the promotion system and various levels? What are the ways of reducing the effects of such changes?

- Is there an ideal age structure for a particular organization? What should it be?

It must be mentioned that a model to be created for a system is essentially based on certain assumptions about the system and the behaviors of the variables of the system that cannot be controlled. Such assumptions are usually based on experimental and theoretical grounds. What is expected of an experimental assumption is to obtain several characteristics of the system from the previous behaviors of the system. To exemplify, when the quitting records of the personnel with similar years of service are examined, it will be seen that this quantity is proportional to the personnel stocks with the same years of service. This result will be included in the model since it will make the planners and decision-makers assume that the quitting ratio of any personnel is the same. Such an assumption brings about the thinking that some situations observed in the past will continue in the future. However, in planning, rather than dealing with the past, some situations that might emerge in the future are usually focused on. Hence, the assumption that personnel flows are proportional to personnel stocks, which is mentioned above as an experimental assumption, is arranged in a matrix structure that shows the probabilities with Markov Chain Model. Markov models are of great importance for examining an organization according to age and years of service. The low number of personnel in a particular age category in an organization can make it difficult to determine those to be promoted. On the other hand, the increase in the number of individuals who reach retirement age will affect recruitment. For this reason, Human Resources

Managers should analyze the age distribution of the employees in their organizations.

4.1. The responsibility of upper management in human resources management: To identify policies and targets in organizations and determine the strategies to realize these. The success of organizational activities varies according to the importance attributed by this level to activities. In other words, the attitude of the upper management will determine the position of HRM in the organization and the role it is going to play.

4.2. The Role and Responsibility of Specialized Units and Managers in HRM: The department responsible for human resources should be at an equal level with the other departments and have a close position to the upper management to perform its role. Today, it can be stated that human resources professionals are a vital element for the organization's success.

4.3. HRM and Open System Approach: Organizations are open systems that are established to realize a specific goal by bringing together various resources, and both affect the environment in which it exists and is affected by it by interacting with the environment. In the same way, HRM will be in constant interaction with the organization it is a part of and the environment in which the organization exists.

4.4. The Interaction of Internal and External Factors with HRM: The idea of management is primarily a product of specific environmental conditions. Therefore, it changes and develops under the effect of environmental conditions. Besides, the management idea is primarily affected by scientific analysis and research findings related to the management process and organizational behaviors (Baransel, 1979:52). For this reason, examining the management process both scientifically and considering the changes in the environmental conditions will enable us to predict the future from today. Internal Environmental Factors (Kaynak, 2000: 27) are:

- Individual characteristics,
- Job qualifications,
- Interpersonal relations,
- Organizational characteristics,

External Environmental Factors are:

- External workforce,
- External resources,

- Competitors,

- Regulators,

Organizations can ensure employee satisfaction by adapting to environmental changes and reach high performance. Therefore, for the effectiveness of HRM, the issues below must always be considered:

- Needs and expectations of employees are different,

- Organizations will not achieve efficiency as long as they do not meet these needs and expectations.

- Organizations also change.

4.5. Job Analysis and Job Design: To achieve determined goals, organizations, employees, and the jobs they do are divided into various groups under different names such as division, unit, and department. In order to ensure the effectiveness of business activities, the boundaries of these groups should be determined, and their responsibilities should be described. Job analysis activities are made up of efforts to determine the tasks, responsibilities, and working conditions. In this analysis, individuals' knowledge, skills, and abilities will do these jobs must have are specified. It is typically examined through two approaches:

- The first approach is to do the job analyses in terms of human resources.

- The second approach involves various quantitative works (job simplification, time-action studies, management improvement, job measurement).

The setbacks, incompetence, and problems in job analysis resulting from various reasons are reflected onto the HR program they are related to and negatively affect the success of these programs.

With job design activities, the structures of the jobs in the organization are tried to be transformed into a form that will create more job satisfaction for employees.

4.6. The Method of Collecting Data from Job Analysis: The primary data collection methods used in the job analysis process are:

- Observation (Simple, repetitive jobs and jobs that can be completed in a short time),

- Questionnaire (with detailed forms),

- Interview (It is used the most. If used together with the questionnaire, its efficiency increases.),

- Resorting to other methods (expert opinion, using daily records).

4.7. Job Descriptions and Job Requirements: the documents in which the data collected in the job analysis process are summarized and formulated are called job descriptions. The information included in the job description can be grouped as follows (Kaynak, 2000: 61):

- Description of the job,

- Tasks included in the job,

- Other jobs related to the job and supervision required by the job.

Job Requirements (Job Specifications/Job Qualifications): These include the individual's characteristics to do the job correctly. It is made up of the following information:

- Education,

- Experience,

- Age,

- Mental and physical capabilities.

As it can be understood from the definition above, workforce planning ensures the available qualified workforce in sufficient number required for performing a job that needs to be realized at a certain period in the future to be included in the workforce. According to the definition, workforce planning involves the following characteristics (Wikstrom, 1971):

- Estimating the need for a workforce in the future,

- Identifying the available workforce resources and determining whether these resources are employed optimally,

- By evaluating the current workforce resources in line with future needs, predicting the problems that may arise in the future,

- Providing, selecting, training, placing, and benefiting from the workforce and programming issues such as changing, promoting, supporting, and satisfying them economically.

4.8. The relationship of workforce with training planning levels and development: Planning workforce is vital in terms of using the resources effectively and efficiently, preventing waste of resources, and the service to be provided meeting the needs, and it will always be needed. Human force planning made in order to realize the determined goals is performed at macro and micro levels:

- The first target in workforce planning at the macro level is identifying the necessary employment forms to attain the economic goals determined

in the planning. In this determination, data from previous employment are benefited from, and estimates are made regarding what shape employment will take in the future. Since employment studies regarding the future are carried out, the starting point is determined by the demand for the workforce in the future. It is followed by providing the workforce supply that will meet this demand (Leicester, 1969).

On the other hand, planning at the micro-level is made at the level of the business. It essentially involves increasing production efficiency and meeting the demand for the workforce in the future. Workforce planning at the business level is usually an inseparable part of the determined policies and goals of the business (Bell et al., 1969).

Making unrealistic plans and far from meeting the need decreases the system's productivity, disrupts its operation severely, increases the cost, and leads to an unbalanced distribution of resources. When the information given above is considered, making a realistic, applicable, short, medium, and long-term workforce planning becomes a managerial necessity. There are some special reasons for countries to carry out workforce planning studies at different levels. However, in general, some factors make it necessary to make workforce planning such as technological changes, improvement, the time required for training, lack of qualified workforce, demographic factors, the workforce increasingly becoming a sensitive resource, developments in computers and system concepts, and the sensitivity of governments towards this issue. The aim of workforce planning is not only to achieve the determined growth percentages. Workforce planning should consider economic targets and use human resources, modernization of traditional sectors, economy being able to feed the general population and increase in food resources in line with the growth rate in the population. However, the common trend is achieving economic growth rates (Hesapçıoğlu, 1984).

Per this trend, estimates made by workforce planners regarding the need for the workforce are primarily based on determining economic targets and productivity assumptions that form the basis of these targets, and then on sectors, occupational categories, and educational levels. The ultimate workforce demand is expressed within the framework of training targets in the final stage.

At this stage, effective workforce planning necessitates consistent and holistic education planning. As long as education planning involves all types and levels of education, including adult education, it will contribute significantly to economic development. Recent years demonstrate that education planning cannot be considered separately from workforce planning and the relevant economic planning. Education is evaluated as

the precursor of all activities, particularly in developing countries, and it is seen as an investment to realize economic targets.

The mutual relationship between education and employment manifests itself at every stage of development. Resolving the issue of educating the required workforce for development also necessitates resolving the economy's capacity to employ this force. Speaking during Forum Istanbul 2011, Minister Babacan discussed the reforms that Turkey needs to put into practice to reach 2023 targets and stated, "One of the most important areas of reform in front of us is issues about education. ... If we now have the problem of current account deficit, one of the most important reasons is education. The total national income of a country, its production, and its competitive power are closely related with the amount of added value produced by each individual in that country." A similar comment was made by Swedish scientist Prof. Dr. Hans Rosling, who is known for his studies in the field of healthcare, in his speech in Istanbul, "In societies where healthcare and education services are developed, the economic infrastructure also strengthens. Individuals whose education opportunities are widened and in healthy conditions demand more equality and democracy from their governments. As women are educated more, they give birth to fewer children, and humans' length of life increases" (Milliyet, May 14, 2011). According to some views, even if the economy cannot absorb, the workforce's education must be continued without any limitations. This viewpoint can be defended based on political and social reasons. However, educating a mass of workforce that cannot be employed in the economy can lead to social problems and imbalances between the sectors in especially countries with limited resources on the development path.

The main difficulty in the process of workforce planning lies in the fact that the planning concerns "humans." In other words, the workforce is a production input that is hard to measure with its physiological and psychosocial qualities and does not display homogeneous properties. In workforce planning, it is necessary to include two main dimensions in planning by combining them:

- The technical aspect of the issue (numerical or mathematical dimension),

- The behavioral aspect of the issue (psychological and social dimension).

The planning process does not play only a cost reduction role by saving from the number of personnel; it is also valuable for making the production process effective by providing the selection and employment of

employees suitable for the nature of the job. Personnel planning involves the following points:

- Need for personnel,
- recruiting personnel,
- Improvement and training of personnel,
- Planning the training and dismissal of personnel.

In workforce planning in the field of healthcare services, the following methods and approaches of the World Health Organization (WHO) are used together or separately (YOK, 2010: 4):

- Needs Method,
- Employment Method,
- Application Method,
- Target Method,
- Workforce. - Population Ratio Method (It is one of the most widely used methods in which

the workforce is calculated based on the population).

The criteria and preliminary data necessary for proper planning in healthcare workforce planning can be grouped under the following headings (YOK, 2010: 5):

- Healthcare workforce data,
- The status of the population using healthcare services,
- Health level indicators,
- Demographic data,
- Economic data,

4.9. Main Principles and Methods in Human Resources Need Planning: August Marx shares this observation while stating that personnel planning is a process: "The primary task in personnel planning is to determine the efficiency levels of employees at present and in the future, and to establish a balance in terms of the need for personnel in the process by taking necessary measures" (Marx,1963:30). As a matter of fact, at the basis of personnel planning lies the ability to keep the quantity of workforce at an optimum level while achieving the highest efficiency is a datum for the business.

Personnel need planning theoretically refers to determining a job that needs to be done in a given time in terms of quality and quantity

and based on these determined values, identifying the workforce that has the qualities to do the job in question in terms of numbers. Workforce planning usually follows the following steps (WHO, 1980):

- Currently available workforce and healthcare workforce status report regarding services,

- Workforce supply in the future,

- Workforce needs (quantity, quality, distribution),

- Determining mismatches between the supply and the needs,

- Eliminating mismatches,

- Organizational and managerial problems,

- Workforce strategy and draft plan,

- Detailed healthcare workforce development plan,

- Application and follow-up/supervision.

4.10. Types of Personnel Need: In the production process, personnel need is divided into different types according to

- Local,

- Temporal,

- Quantitative,

- Qualitative characteristics. Two main concepts regarding personnel planning in the process

stand out:

- Available quantity of personnel,

- Needed quantity of personnel. In the application stage of the planning,

these two quantities must always overlap.

4.11. Actual Personnel Need: The need for a workforce that fulfills the job for the business to achieve its economic targets.

In order to calculate the actual personnel need, the total time required for all operations of a job in a certain period is divided by the amount of time that one employee will spend for that job in the given period.

4.12. Substitute Personnel Need: The number of personnel to be needed for the job to be done without interruption in cases of inevitable absences emerging due to personal reasons such as illness, accident, leave,

and the like. Thus, the required personnel number can be formulated as "future personnel need + substitute personnel need."

Multiplying the rate of absences (RA) in percentages with the actual personnel need will yield the actual personnel need in numbers.

4.13. Additional Personnel Need: While the substitute personnel need in a business emerges from absence, additional personnel need emerges due to employee dismissals. If the number of recruitment in the business is higher in the process, it will be assumed that the business is growing (labor-intensive). In this case, the actual workforce turnover rate will be calculated over dismissals.

If the recruitment rate is higher than that of dismissals and if the establishment of recruitment-dismissal balance is not foreseen, the business will be interpreted to be downsizing.

Accordingly, multiplication of the determined workforce turnover rate with the actual number of personnel will yield the additional personnel needs.

4.14. New Personnel Need: A business may need new personnel due to new or additional investments. One of the reasons for the emergence of new personnel need is the change in the organization structure (as a whole or partially).

If the new personnel need has arisen due to production increase, this need can theoretically be calculated by dividing the total required time for this additional production amount by working time per capita.

4.15. Personnel Dismissal Need: In general, it results from the fact that the current personnel number is higher than the required number of personnel. The reasons for the emergence of personnel dismissal need can be listed as:

- Decrease in the sales of the business,

- Rationalization, mechanization, and automation phenomena as classical reasons,

- Suspension of production phenomena that emerge in the form of the closure of the business due to macro and micro reasons, leaving the production type, or stopping production.

What is vital in terms of business management is to ensure and preserve the optimal personnel number. This optimization issue is related to keeping the number of sufficient and qualified personnel during the production process as many as or close to the number to be needed.

In principle, dismissing employees should prioritize the easily forsaken the forsaken with the most difficulty. Besides, reducing the staff's actual number, not recruiting additional personnel, encouraging voluntary quitting, terminating contracts.

4.16. Statistical Models Used in Planning HR Needs (Generally Accepted Models): These models are as follows:

- Trend Extrapolation Method,
- Regression-Correlation Analysis Method,
- Linear Regression and Correlation Method,
- Curvilinear Regression and Correlation Method,
- Multiple Regression and Correlation Method,
- Markov Chain Model,

5. NORM CADRE

5.1. Norm Cadre in General

The word "norm" is derived from the term "normal", and is used in the meaning of "code, rule, and natural law." Cadre can briefly be described as "conformity with the norm." The term "norm" involves being an example, standard (uniform), type, and model. On the other hand, cadre refers to the whole of the things that are needed to fulfill a job. With its briefest definition, cadre can be described as a "place of duty." A cadre is a group of tasks and responsibilities appointed by an authority that necessitates an individual to work continuously or with intervals. Cadre is related to the job done rather than the one who fulfills the job. Cadre is the cell of the units. The concept of cadre is separate from the individual and is associated with service. The number and qualifications of public officials are determined through cadres (Tamer, 2007: 35). Formulating the ideal organizational structure by performing organizational analysis and determining the individuals' quantity and quality are rendered concrete through cadre (Turkish Municipalities Association, 2002: 12).

The purpose of determining norm cadre is to identify the required quantity and quality of the personnel by considering the technology used by a business, organization, or unit to attain the determined target.

Need and producing service in order to meet this need are essential at the starting point of care. Cadres are determined by considering the duties that the institution will perform (Gezer, 2005: 32-36). While preparing norm cadre, it is necessary to prepare job (task) analysis, job study, method study, job measurement, and norm cadre guide. Similarly,

organization analysis for norm cadre, organizational chart according to the analysis, and organization handbook and organization report should be prepared. Finally, the "norm cadre position guide", which shows how many individuals should be employed in the cadres/positions described in terms of job, is prepared.

5.2. Benefits of Norm Cadre

It is possible to summarize the benefits of norm cadre as follows:

- Since the required number of personnel in order for the business, organization, or unit to achieve its determined targets will be determined by using job measurement method and by taking into account the technology they use, employment of extra personnel will be prevented, and efficiency of labor will be increased.

- In addition to determining the required number of personnel for the business, organization, or a unit to reach their determined targets, with norm cadre, the qualities of the personnel will also be determined. As a result, it will help determine the focus of the educational programs of the business and identify the qualifications of the personnel to be newly recruited.

- By clarifying duty titles, it is ensured that positions with a daily workload of less than eight hours are not allocated a cadre, and thus, employment of passive personnel is prevented.

- It enables the establishment of objective management.

- It enables the reduction of personnel costs and preparation of the budget with a realistic approach.

5.3. Norm Cadre Applications in the Public Institutions of the Republic of Turkey

Institutions may have to carry out some applications in line with government policies. Many institutions do not have the knowledge accumulation and personnel to carry out these applications mandated by the government. Unplanned applications performed under the name of planning lead to problems experienced within the institutions. In recent years, one of the applications required from public institutions is personnel planning, also known as norm cadre. Norm cadre application in public institutions can be seen as an obligation, but when its content is examined, it is understood that it is a necessity. When answers are sought for the questions, "Has the norm cadre application, which is undeniably necessary, been understood appropriately by public institutions?", "Has it started to be applied at the right time?", "Has it properly been designed?",

"Have appropriate people with appropriate techniques analyzed it?, it can be stated that the result is unsuccessful. Then, what is obtained through norm cadre analyses in public institutions is controversial.

Determination of the optimal number of personnel in terms of quality and quantity by analyzing the jobs performed according to their purposes is an issue that must be emphasized. Personnel in adequate numbers and quality must be employed in carrying out the jobs effectively and managing processes. In determining an optimal number of workforce, identifying the functional performance of the personnel is one of the most important problems encountered in practice. It is necessary to define the basic concepts of norm cadre, which is used in determining the optimal number of personnel. According to the norm cadre handbook published by TR Prime Ministry State Personnel Presidency (1998: 3), norm cadre is defined as "determination of the optimal cadre, that is, neither more nor less than what is needed, in terms of quality and quantity in order for public organizations and institutions to carry out their duties effectively and efficiently."

According to the definition of norm cadre made by TR Prime Ministry State Personnel Presidency, norm cadre can be interpreted as a process related to only public institutions and organizations. However, this concept based on workforce planning cab used in all organizations other than the public institutions. As can be understood from the definition of norm cadre, the primary purpose of norm cadre study is to fulfill a service entirely and promptly, and while doing so, to work efficiently with the personnel inappropriate number and quality.

The norm cadre process is carried out in two stages as determining the norm cadre qualitatively and quantitatively. The functions of norm cadre related to organization analysis and job description determination determine the norm cadre qualitatively.

Most of the public institutions have defined the personnel and the jobs they do in general terms by determining the current situation as they have not

perceived the norm cadre concept correctly.

The steps that the public institutions should take can be listed

as follows:

- Organization analysis,

- Job analysis,

- Job descriptions,

- Duty descriptions,
- Sorting the activities in detail according to their priorities,
- Job measurement,
- Activity study,
- Work-study,
- Calculating the number of norm cadre,
- Preparing norm cadre guide,

5.4. What is Obtained as a Result of Norm Cadre Analysis?

As a result of norm cadre analysis, depending on the institution's organizational chart, what jobs are described in which units are determined. It is determined who does each activity in the described jobs how many times a year, and unit activity is measured. By taking the sum of workloads in the activities, the unit's workload according to the job description and a total load of job descriptions is determined. The number of employees employed in each unit in the organizational chart is estimated according to workloads. The difference between the workload of the current personnel and the expected workload shows the performance of the personnel in a sense. By determining the lack or surplus in the current personnel according to the ideal number of personnel, personnel planning is done.

5.5. The Relationship Between Private Sector Personnel Performance and Cadres

Personnel planning made with an appropriate norm cadre analysis can be similarly applied in the private sector. One advantage of the private sector in terms of personnel planning is its performance-based wage system. Unlike the public sector, the private sector can better evaluate the competence and incompetence of the individual in terms of performance through concrete job measurements. In addition to what is done in the norm cadre process, performance indicators are created according to the criteria determined by each organization in the private sector. Through multiple criteria decision analysis, each personnel is given a performance score. Salaries and promotions are based on performance scores. The need for a workforce is determined as lacking or surplus according to the performance of the personnel.

One of the leading scarcity felt in organizations' resources is the workforce, who is specialized and can think analytically. It is possible to increase performance by employing the workforce in the correct place at the right time. What matters is to ensure performance expectations

that will direct the organization to its purpose in the jobs done. The first step in measuring the performance of the personnel is to carry out an application that is similar to norm cadre analysis used in the public sector. On top of norm cadre analysis, by performing job analysis complying with its standards and expectations, the private sector should determine the performance of the personnel. Each minute that the personnel spends in vain harms both the organizations and the economy of the country.

5.6. Norm Cadres and Their Reflections on Today's Innovative Public Administration

Dynamic processes such as changes- developments in any part of the world resulting from globalization should be evaluated well by developed mentalities. The organizational, theoretical, functional, legal, and personnel dimensions of public administration should be analyzed well, and an efficient public administration model should be established. Also, by determining the duty, authority, quality, title, and number of the personnel who will fill in this model, the selection and placement of the personnel required for public services must be the essence. Here, a structure that is open to extensive supervision mechanisms, service efficiency criteria, and service performance evaluations and which possesses a determined purpose, duties, responsibilities, management, and standards must be established and developed. The three legal pillars of this process in Turkey are made up of Public Administration Basic Law, Public Personnel Law, and Public Financial Management and Control Law (Yüksel, 2005: 48-54). While a triple structure was envisaged with the Law numbered 657 as a civil servant, contracted personnel, and wage personnel, later, a practice was introduced as Temporary Worker with a statutory decree. This status was made permanent, although its name included the term temporary, and instead of wage personnel, worker status was brought. As a result, a type of employee who did the same job in the same room but was paid a different salary emerged. Public services started to be provided through:

- Civil servants,

- Other public officials,

- Workers, and

- Temporary workers. Thus, state services are provided through civil servants, full-time and part-time public officials, and workers. Recruitment and promotion of civil servants and other public officials are determined according to selection exams based on license and merit. Full-time and part-time other public officials and workers are employed based on contract independent of cadre condition. With norm cadre, it aims to determine how many individuals are needed to carry out the jobs

in the public sector. The primary purpose here is to reduce the number of employees. Those who are surplus according to the norm cadre will be appointed to another position, retire, or be laid off.

At the point reached today, especially as a reactionary result, it is seen that norm cadres are determined in insufficient numbers and plain expressions and that there is a great shrinking in the cadres allocated to local governments. As a tangible result of reform efforts in public institutions, there has been a shift to a central exam, promotion in duty, and norm cadre application.

5.7. Legal Regulations Regarding the Issue

Although there are many legal regulations related to the issue, the ones closely related to norm cadre application are as follows:

- The Statutory Decree on the Organization and Duties of State Personnel Presidency

numbered 217,

- The Law on Civil Servants numbered 657,

- The Statutory Decree on General Cadre and Order numbered 190,

- The Regulation on Cadre Creation and Releasing, Cadre Change, and

the Procedures and Principles on the Use of Cadres numbered 84/8029,

- Procedures Regarding Special Provincial Administration Norm Cadre Principles and Standards

(Ministerial Cabinet Decision number: 2006110265),

- Procedures regarding the Norm Cadre Principles and Standards of Municipalities and Affiliates and Local Administration Associations dated 22.04.2005 (Ministerial Cabinet Decision number: 2006/9809),

- The Municipal Law numbered 5393,

- The Metropolitan Municipality Law numbered 5216,

- Special Provincial Administration Law numbered 5302,

- The Law on Local Administration Associations numbered 5355,

- The Law on Organization and Duties of Ministry of Internal Affairs numbered 3152,

- TR Prime Ministry State Personnel Presidency Norm Cadre Handbook (1998),

- Basic Law on Public Administration and Public Financial Management and Control Law,

"Procedures and Principles to Be Applied in Norm Cadre Works by Public Organizations and Institutions" published in the Official Gazette dated 20.12.2000 and numbered 24266 and took effect on 6.1.2001.

6. DISCUSSION, CONCLUSION, AND SUGGESTIONS

The human resources management process starts with planning and follows a process that continues with preservation. It is doubtless that planning is a critical step of the process. Workforce planning, which is the process of ensuring the inclusion of the available and qualified workforce in necessary and appropriate numbers in the workforce in order to carry out a job that needs to be done at a particular time in the future, is vital in terms of effective use of limited resources and should be handled together with education planning. Workforce and education planning should not be dealt with in a narrow framework; however, planning should be perceived as improving human resources in general and national growth and development. Contrary to personal promotion planning, workforce planning aims to make the workforce available at the right time, in the right place, and inappropriate numbers. The main aim of human resources management is to find the most effective workforce for the business, develop it, and ensure its sustainability. One of the characteristics of workforce planning is that there exist some uncertainties. These uncertainties can stem from either personal behaviors or the social and economic environment in which organizations exist. If the process is carried out in a planned way and efficiently, the profitability of businesses will increase, an opportunity for the business which they breathe together to develop continuously. In addition to the development of protection measures, it will help create human beings who are open to change and aim at continuous success. However, it would not be realistic to state that practical and realistic workforce planning is done globally and locally in terms of the point reached today. Old ways of thinking, old formulas, teachings, ideologies do not comply with the facts of today, no matter how beneficial they were in the past. Today's world, which has been shaped under the influence of new values and technologies, new geopolitical relations, new styles of life, and new communication methods, necessitates new ideas, new metaphors, new classifications, and concepts. Each country has shown an effort in terms of workforce planning. These efforts have sometimes not produced a result, and although they sometimes yielded a result, they could not be applied decisively. The reasons for this can be briefly listed under the following headings:

- Macro and micro plans not overlapping,

- Some data such as workforce supply, losses, distribution in the private sector, and service outcomes being unhealthy,

- Planning being done in the short term and to overcome crises, and

the disappearance of support and resources for planning with the crisis being overcome,

- The frequency of government changes, and subsequent changes in priorities,

- Inflationary effects and budget limitations as a result of economic crisis, and its reflection on employment,

- Being unable to establish a healthy balance between the plan document and its application,

The connection and interaction between the educational institutions training personnel in the relevant field and employment are insufficient.

In order for workforce planning to be successful, the following issues must be emphasized at each stage of planning:

- Establishment and continuation of cooperation between individuals, institutions, and organizations,

- Creating a reliable data bank that will be the basis of planning,

- Testing the appropriateness of the method,

- Discussing the conformity of workforce estimation models with national and regional facts,

- Sticking to the plan and updating what is achieved,

- Testing whether the projections are reasonable and logical,

- Making the projections long-term and application short-term.

National growth and development is a phenomenon that surpasses only economic indicators and figures, and in addition to them, involves cultural, social, and political development processes and the roles of these processes in the formation of national identity and integrity. Another point that should be drawn attention to is the necessity that the qualitative, quantitative, temporal, and local dimensions of human resources planning should not be neglected. As a result of all these works, carrying out the optimal workforce and workload activities will ensure effective use of resources, and as a result of preventing strategic gap from forming, it will make an essential contribution to the economy.

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Chapter 10

THE EFFECT OF TRANSFORMER LEADERSHIP ON LEADER-MEMBER INTERACTION, JOB SATISFACTION AND JOB PERFORMANCE

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INTRODUCTION

Competition has become intense and even destructive in today's world where employees' feelings of morale and satisfaction are reflected in organizational efficiency and effectiveness. In today's societies where benefiting from humanity's knowledge, skills and abilities are the most valuable resources; the existence and function of a leader has become much more complex than a simple leader-follower relationship of the past (Bayrak, 1997). In addition; the problems, needs, and solutions of the information society necessitated the transition from retrospective, empowering leadership to future-oriented transformative leadership (Gül, 2003).

Leadership studies that have increased in recent years show how important is leadership for organizations. Particularly, the importance of leadership in affecting organizational outcomes has been recognized by researchers and practitioners that leadership comes to the forefront as a critical force on employee attitudes and behaviors (Aslan, 2020). The necessity of continuous and rapid change due to competition forces organizations to change, in other words, transformation accordingly. This necessity increases the need for transformative leaders. Because the transformative leader can combine the contributions of the leader and his followers in determining the problems and producing the most effective solution among the alternatives; He is also a person who motivates his followers and unites them around the same goal, guides change efforts by leading and successfully realizes change (Gül, 2003). In addition, transformational leadership reflects the individualized thoughts of the followers and thus ensures that the followers are satisfied with the work done by recognizing and responding to the talents, wants, and needs of all followers. Also, the fact that transformational leadership is a leadership style that encourages and supports its followers so that they can reach their potential has a motivating effect for their followers to go beyond their job performance and to continuously improve their performance (Kammerhoff, Lauenstein & Schütz, 2018). In this respect, in this study; A literature review was conducted on the effect and importance of transformational leadership on leader-member interaction, job satisfaction, and job performance. First of all, the concept of transformational leadership is discussed, and the basic features and dimensions of transformational leadership are examined. Then, the concepts of leader-member interaction, job satisfaction, and job performance are outlined. Finally, in the study, the literature on the relationship between the aforementioned concepts and transformational leadership was examined, a model proposal was presented, results and evaluations were given.

1.1 TRANSFORMER LEADERSHIP

Transformational leadership, whose original name appears in English as "Transformational Leadership", has been conceptualized as "visionary leadership" by some authors, "charismatic leadership" by some, and "new leadership" by some (Pawar and Eastman, 1997; Eisenbach et al., 1999; Mann, 1988. ; Bolat, 2008).

Transformational leadership, first put forward by Burns and later developed by Bass, is a method by the leader to restructure the organization, bring about changes in employees' attitudes and behaviors, and achieve organizational goals to maintain the organization's competitiveness in the face of environmental factors that constantly evolve and change. It is defined as the process of establishing commitment (Çalışkan, 2018).

One of the important concepts in transformational leadership is change. In this context, transformational leadership; bringing vision to employees; It is defined as a leadership style that gives them additional missions to contribute to this vision and makes them believe that they can do more than they do now or potentially think they can do by making changes in organizational culture (Eren, 2001). In other words; Transformational leadership is a set of skills needed to implement change effectively, create foresight to guide this change, and define the need for change (Keçecioğlu, 1998).

A transformational leader brings organizations to superior performance by realizing change and renewal in organizations. This is possible if the leader has a vision and imposes the vision on the audience (Koçel, 2007). Transformational leaders with strong inner ideals and values; focus on the performance and development of their followers to increase their abilities (Duyan, 2019).

As can be seen from the definitions above, there are many characteristics that an effective transformational leader should possess. In the literature, the basic characteristics of transformational leaders are explained as follows (Ayhün Erden & Celep, 2019):

- Transformational leader can anticipate problems before they develop, that is, they are proactive,
- The transformational leader tries to change the organizational culture to fulfill new thoughts,
- The transformational leader, with his motivation and visionary skills, ensures that the human resources working within the organization reach their goals,

- The transformational leader motivates the human resources working within the organization by answering the needs that will be beneficial for the whole team instead of individuality,
- The Transformational leader considers each attitude as a situation where the person may need to express himself and help.
- The Transformational leader increases the productivity of employees by improving their critical thinking and problem-solving abilities,
- The transformational leader provides this motivation to the followers with empowerment and enables the followers to become aware of their own efficiency, and even enable them to exhibit efficiency beyond this capacity.

Followers or employees easily fall under the influence of the transformational leader described above, and thus admire and respect this transformational leader, see them as a successful role model, imitate them, and tend to resemble him (Sökmen, 2010).

1.1.1. Dimensions of Transformational Leadership

In the literature, it is seen that transformational leadership is formally discussed in four sub-dimensions: idealized effect, individual interest, intellectual (mental) stimulation, and inspiration (motivation).

Idealized Effect (Charisma):

The most basic feature of being a transformational leader is to have the necessary charisma in the eyes of employees (Şeker & Kutanis, 2015). The leader reflects his trust in himself as a role model to his followers, attaches importance to ethical and moral values, and encourages them to be successful within the framework of organizational goals with his behaviors and words. For this reason, viewers identify themselves with their leaders and accept their values and beliefs (Çalışkan, 2018).

Individual Interest:

Individualized thinking emerges when leaders care about the developmental needs of the followers and support their development and coach them (Duyan, 2019). The transformational leader, with his advanced coaching skills and empathy skills, makes the distribution of tasks within the organization in a way that provides a learning opportunity for the followers, listens to their concerns, and makes suggestions for them to improve themselves. As a result of individual support, the aim is to make the employee accept that he is a special person and as a result, to ensure

his commitment to the organization and to increase his performance (Çalışkan, 2018).

Intellectual (Mental) Stimulation:

In the intellectual stimulation dimension, transformational leaders engage in behaviors that encourage their employees to question the status quo and at the same time provide solutions to organizational problems with an innovative and creative perspective (Kreitner & Kinicki, 2009), and they support their efforts to be innovative and creative (Duyan, 2019).

The intellectual stimulation feature has elements that encourage intelligence, rationality, and personal problem-solving ability. Transformational leaders use intellectual stimulation to enable followers to question their thoughts, dreams, creativity, awareness of values and beliefs (Çalışkan, 2018).

Inspiration (Motivation):

The capacity of leaders to create a model, to convey a vision, and to use symbols to focus on efforts to overcome the problems faced by their audience and do their work better is called inspirational motivation (Çalışkan, 2018).

Transformational leaders act together with employees by taking into account their emotions, expectations, and needs and inspire them by showing high motivation by mobilizing their employees to perform above expectations (Duyan, 2019).

Being strong in this dimension of transformational leadership, the leader emphasizes the importance of good performance in the organization to its employees and helps and informs them in achieving the mission and goals of the organization (Çakınberk & Demirel, 2010).

As can be understood from the above four components, the transformational leader understands his followers, cares about them, closely follows the changes in the external and internal environment of the organization; It exhibits an approach that can make radical changes in everything from organizational culture and structure to the acceptance and behavior of employees when necessary (Barlı, 2010).

1.2 LEADER – MEMBER INTERACTION

Over the years, many leadership theories have focused more on the types of leadership that result from a particular set of characteristics of the leader, or on the behavior of a leader in certain situations; hence the general framework of these approaches is based on a uniform subordinate-

superior relationship; Leader-member interaction theory opens this framework and states that different relationships can develop between different subordinates and leaders (Öter & Ayan, 2016).

While the unit of research in traditional leadership approaches is the leader and / or members, in the leader-member interaction theory, the interaction between both is taken as the research unit, and accordingly, the interaction process neglected in traditional leadership approaches and especially the differentiation in this process has been the research subject of this theory (Öter and Ayan, 2016).

Leaders may develop high quality and closer contact with some members, and low quality and more authoritarian contact with some members due to many reasons arising from time and resource constraints. In general, although the theory does not claim that there will be various interactions between the leader and all members one by one, it suggests that the leader can establish stronger and higher quality relationships with some members for reasons (Ayhün & Celep, 2019).

The theoretical basis of leader-member interaction is vertical relations and job roles that are determined or developed in a process of change, or the interaction between the leader-member (Bauer and Green, 1996). Among these interactions, those who have trust and high quality interaction with the leader are considered as "in-group" and characterized by the concept of relationship; Those who have formal and low-quality interactions with the leader are characterized as "out of the group" and are characterized by a more defined role concept (Çalışkan, 2018).

Leader-member interaction theory suggests that leaders do not have the same level of interaction with their subordinates, and the quality of the interaction determines how the leader will treat his subordinate (Aslan, 2019). While the subordinates in the inner group have high-quality interaction with their leaders, the quality of the interaction of the subordinates in the outer group with their leaders is low (Gürbüz & Ayhan, 2017). Low-quality leader-member relationships are characterized by economic changes that do not progress beyond a specific area in the employment contract, while high-quality leader-member relationships are characterized in terms of social changes that extend beyond the requirements of the employment contract. Subordinates who have high-quality relationships with their superiors have organizational awards and privileges, while subordinates with low-quality relationships cannot go beyond official achievements (Işık & Uçar, 2019).

1.3. JOB SATISFACTION

Job satisfaction in its simplest form; can be defined as the reaction or feelings that a person has towards his job (Türk, 2007).

Job satisfaction is the sum of people's feelings and beliefs about their current job and is one of the most important and best researched attitude behaviors of organizational behavior; In other words, job satisfaction can be explained as the comprehensive and positive feelings employees have towards their jobs and the consequences these feelings have on employees (Bozkır, 2014).

Job satisfaction according to another definition; In line with the expectations of individuals at their entrance to the organization, it is defined as the satisfaction created by what they have gained from their work, that is, in this context, job satisfaction is defined as a form of behavior that consists of the pleasing or dislike feelings that employees show towards their jobs (Akdeniz, 2010).

The first job satisfaction surveys started during the First World War and job satisfaction was defined as "working in a factory with a method that will create the least stress and fatigue" by Taylor and Gilbert (Yazıcıoğlu & Sökmen, 2007). Researching the relationship between the concept of job satisfaction and productivity and performance and making a generally accepted definition of job satisfaction was made by Hoppock in 1935 and defined job satisfaction as the emotional response of the employee to the job (Duyan, 2019).

Although the concept of job satisfaction is tried to be defined in different ways, it can be said that it is an indicator of satisfaction with the job in general (Eroğluer, 2011). The most important feature of job satisfaction is that it is an emotional concept rather than a mental one. Because it is personal, the most important thing that a manager can do is to help his employees achieve optimum satisfaction (İşcan & Timuroğlu, 2007).

Job satisfaction has three important dimensions (Yazıcıoğlu & Sökmen, 2007).

- Job satisfaction is an emotional response to a job situation. So it is invisible, it can only be expressed.
- Job satisfaction can generally be expressed by the extent to which the outcomes meet expectations.
- Job satisfaction brings many attitudes about each other. These are generally job, pay, promotion opportunities, management style, colleagues, and etc.

Employee satisfaction is affected by many factors arising from both the individual's characteristics and the work environment in which he or she worked. Factors affecting employee satisfaction can be considered individually and organizationally (Akıncı, 2002).

Individual Factors: Many individual characteristics such as gender, age, title, job experience, education level, and personality affect job satisfaction and job-related attitudes (Yelboğa, 2007).

Organizational Factors: Internal issues such as job and the nature of the job, salary, working conditions, and promotion opportunities are among the organizational factors that affect employee satisfaction.

If a person's needs and values are compatible with the job he has done, job satisfaction arises (Dine Özcan, 2011). In general, satisfaction occurs when the desires that individuals desire to be realized and the impressions they get from the business environment match each other (Eroğlu, 2006).

If the attitude of the employee towards his / her job is observed to be positive, it is mentioned about job satisfaction; in the opposite case, it is mentioned that the employee does not have job satisfaction and the presence of dissatisfaction (Erdoğan, 1996). While job satisfaction affects positive behaviors directly and indirectly, job dissatisfaction negatively affects many attitudes and behaviors that are important for the organization (Akyıldız & Turunç, 2013).

Studies show that businesses with satisfied employees are more productive than businesses with unsatisfied employees. (İnce et al., 2015). Also in research; Employees 'high job satisfaction increases individuals' self-confidence, morale, performance, and productivity; It has been stated that it reduces stress, tensions, worries, complaints, absenteeism, and turnover rates. Whereas; Job dissatisfaction weakens the immune system of the organization, weakens and even destroys the organization's response to internal and external threats (Bozkır, 2014). For this reason, managers may turn to applications such as job design, job rotation, job enrichment, job expansion, and simplification to increase job satisfaction.

1.4. JOB PERFORMANCE

Job performance is one of the main elements of organizational success.

Job performance is defined as direct or indirect behavior that contributes to the provision of qualified production or service (Çalışkan, 2018). In other words, job performance means "to fulfill its duty effectively" (Kesen, 2016).

Performance on the basis of the organization can be defined in the form of the ability to achieve the determined goals of the organization by effectively use of the organization resources. Performance is the product that the employee obtains as a result of the actions and processes related to his duty to reach the organizational goals in terms of organizational behavior. The type of this product can be goods, services, or ideas (Tercan, 2017).

Job performance is generally considered in two dimensions as task and contextual performance.

The task performance dimension expresses how well employees complete a specified task; The contextual performance dimension refers to behaviors such as voluntary participation outside of the task, collaborating, obeying the rules and procedures, and adopting the goals of the organization (Ertan, 2008).

When employees use their technical knowledge and skills to produce products or services during the basic technical processes of the enterprises or perform special tasks that support this technical process, they exhibit task performance (Özçelikçi, 2020).

According to Borman and Motowidlo (1993), the contextual performance includes 5 basic activities. These aforementioned activities (Özçelikçi, 2020);

- Basically volunteering for activities that are not included in the job description,
- Making an extra effort to fulfill the tasks that are under the responsibility of the person,
- Helping and cooperating with colleagues,
- Complying with organizational norms and rules, even if it is not personally appropriate,
- To acknowledge, support, and advocate for the goals of the business.

In order to talk about the high level of performance of the employee, it is expected that the personal and organizational performance of the employee while making an effort in line with the mission and vision of the organization is realized at the highest level at the same time. Personal performance, which is important in this respect, consists of three elements (Özçelikçi, 2020).

Focus: The first element of increasing personal performance is the focus. The main performance is knowing what methods to use to achieve

success. Therefore, there is a need for a method that determines who will do what and when in working life.

Competence: The knowledge, skill, and ability that lead to higher performance is called competence. It is expressed as the actions performed by the employees with the knowledge, skills, and attitudes they have or have developed by the organizational belief and value system to achieve results at a personal and organizational level.

Devotion: It is the process where the employee needs to stay in the business for a long time by identifying himself with the business and the overlap of his own goals and business objectives to achieve the goals of the business he is a member of. In the management of the business, although the relations of the employees with the business gain importance, the level of commitment and trust of the employees to the business is expected to be high.

Job performance is affected by many factors, both managerial and individual. While managerial factors include elements such as management style, stress, morale and motivation, reward-punishment management, occupational health, and safety, physical conditions; individual factors include factors such as gender, education, age, and culture.

Since the individual performances of the employees directly affect both themselves and the business, the concept of work performance has become a very important concept for organizations.

1.5. THE RELATIONSHIP BETWEEN TRANSFORMER LEADERSHIP AND LEADER-MEMBER INTERACTION, JOB SATISFACTION, JOB PERFORMANCE

There have been many studies in the literature on transformational leadership and its relationship with other variables. In these studies, the relationship between transformational leadership and the variables mentioned; and the existence of relationships between variables have been tried to be revealed.

It is stated that transformative leadership dimensions feed the quality of the relationship between the leader and his followers, the level of the relationship between the employees, and the perception of justice regarding the sharing of resources within the organization (Çalışkan, 2018).

So, transformational leadership and the leader-member connection is positive according to many researchers. In the study conducted by Krishnan (2004; 2005) on non-governmental organizations, a conclusion was reached that supports the relationship between transformational leadership

and leader-member interaction, and it is stated that the complementary interaction of transformational leadership and leader-member interaction will create a powerful field of activity for organizations. According to Palmer et al. (2001), transformational leadership is linked to leader-member interaction, as it allows one to manage others 'feelings and follow others' activities. Moreover, both concepts of leadership overlap in terms of mutual respect, trust, and overall quality of working relationships. In this respect, leader-member interaction and transformational leadership can complement each other under certain conditions and at certain times (Çalışkan, 2018).

P1: There is a complementary positive connection between transformational leadership and leader-member interaction.

Researchers argue that the most important factor affecting the job satisfaction and employee complaints of employees in organizations is leadership behaviors. (Yanık et al., 2013). According to Atay (2001); The type of behavior followed by the leader outlines the business being more successful and creative and the employee's high level of satisfaction in working life. For this reason, many studies have been conducted on the effect of leadership behavior on job satisfaction (Taş & Önder, 2010).

Al-Hussami (2007); found that transformational leadership behavior positively affects employees' job satisfaction. Hamidifar (2009) examined many different leadership styles in his study and found that transformational leadership contributes more positively to job satisfaction than any other leadership style (Bozkır, 2014). Baltacı et al. (2014), in the study conducted on 370 employees from 8 five-star and 9 four-star accommodation establishments in Alanya, it was examined how the job satisfaction levels of the people were affected by the leadership characteristics of the managers. As a result of the analysis, it has been observed that if the visionary and transformational leadership perceptions of the employees are high, their job satisfaction levels are also high (Arslan, 2019). In a study conducted with 511 engineers and scientists working in the R&D department of telecommunication companies, it was determined that the transformational leadership exhibited was related to establishing a quality work environment and increasing the job satisfaction of the employees (Duyan, 2019).

Transformational leaders with effective communication skills tend to reach more agreement on achieving the strategic goals of the organization. They help their employees voluntarily and prevent the occurrence of work-related problems. The final result of these actions is an increase in the job satisfaction levels of the employees (Arslan, 2019).

P2: Transformational leadership behaviors positively affect employees' job satisfaction.

The success of businesses depends only on the performance of the employees and their positive attitude towards the job. For this reason, enterprises adopt various strategie to increase the performance of their employees. The most important factor influencing the performance of employees is the attitudes and behaviors of managers. Managers' attitudes and behaviors are important for the performance of employees and the future of the business (Ay & Keleş, 2017).

Eren and Titizoğlu found that due to the attitudes and behaviors of transformational leaders, employees also felt special, motivated, and encouraged and that this situation positively affected the performance. Çekmecelioğlu (2014) found in his study that transformational leaders increased their performance by helping their employees reach high levels of motivation such as justice and equality. In Vigoda-Gadot studies, it has been determined that managers who adopt a modern leadership style are successful in the process of influencing people to achieve certain goals by using persuasion techniques rather than authority or power status, and this situation has positive effects on the work performance of employees (Ay & Keleş, 2017). In a study conducted with bank employees, a significant positive relationship was found between transformational leadership and job performance. In a study conducted with managers involved in the wholesale and retail distribution of a manufacturing company on this issue, it was concluded that transformational leadership has a high effect on job performance (Çalışkan, 2018). In the study conducted by Aslan (2019) with 163 employees in hotel businesses in Gaziantep, it was determined that transformational leadership positively affected employee performance.

P3: Transformational leadership behaviors positively affect employees' job performance.

Considering the results of the research on the variables mentioned in the literature, it is seen that there are significant relationships between them.

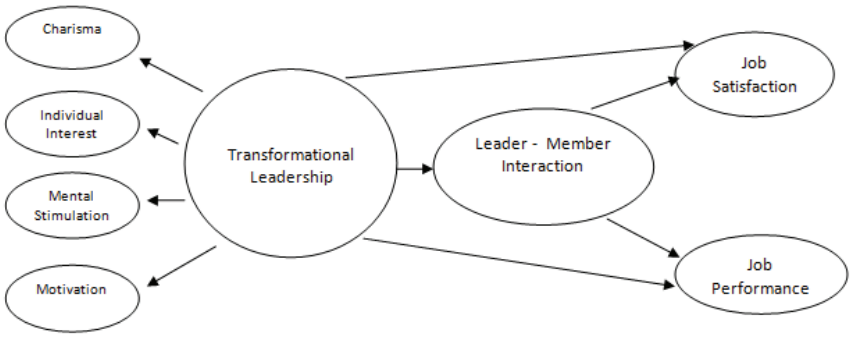
Gerstner and Day (1997), in their study examining the literature on leader-member interaction using a meta-analysis method, revealed that there is a significant relationship between leader-member interaction and variables such as general job satisfaction, job performance, and organizational commitment (Özutku, 2007). Fey and Björkman (2000) investigated the effect of managerial and employee structures on performance, in this context, they examined the performance relations between organizational structure-manager-employee triangle and found

a positive relationship between job performance and organizational and managerial structure. Goodman and Svyantek (1999) determined that leader-member interaction can be used in predicting situational performance (Çalışkan, 2018).

When looking at the studies on the relationship between leader-member interaction and job satisfaction; For example, Volmer et al. (2011) found in their research that leader-member interaction and job satisfaction mutually affect each other, there is a meaningful and equally strong interaction from leader-member interaction to job satisfaction and from job satisfaction to leader-member interaction. Brimhall (2014) concluded that leader-member interaction has a positive effect on job satisfaction (Işık & Uçar, 2019).

P4: Leader-member interaction acts as an intermediary between transformational leadership and job satisfaction and job performance.

Figure 1: Conceptual Model



CONCLUSION

Transformational leadership, which has started to find its place more and more frequently in management literature, is becoming more and more important every day. Organizations trying to find a place for themselves in the changing world; needs leaders who can manage the necessary processes to adapt to change. The ability to reveal the change required for the organization, to provide vision to the employees, and thus to achieve the intended change effectively, has made transformational leaders the leaders needed for organizations.

Today, the rapidly increasing competition with the effect of globalization has revealed the importance of human resources and that human beings are one of the most important capital items for organizations.

In addition, low productivity and low performance, which are considered as one of the biggest factors of the lack of competition in organizations, directed organizations to the human factor, and strategies to increase the job satisfaction and performance of the employee were tried to be determined. Because the increase to be created in the job satisfaction of the employees will increase the performance of the individual and the organization in general. Many studies conducted today have revealed the positive effect of leadership behavior on this increase. Depending on these developments, the importance of transformative leaders has increased day by day due to their motivation and visionary abilities and their success in ensuring that employees achieve their goals.

The research results in the literature review show that the relationships between charisma, individual interest, mental stimulation, and motivation, which are the dimensions of transformational leadership, and job satisfaction and job performance are significant and positive. Leader-member interaction also plays a mediating role in these relationships.

In studies, it is seen that as the leader-member interaction increases and the leader unites employees around these goals by creating a forward-looking vision and common purpose, their job satisfaction, and performance increase. In addition, studies show that the job satisfaction of employees has increased, especially with the contribution of transformational leaders identified with the phenomenon of change.

Most of the research results in the literature are support that; transformational leaders; who are seen as role models and the most important resource for the organization, increase job satisfaction and job performance by motivating employees, by using their strong leadership skills.

As a result, it is a fact that change or transformation, which has become a necessity for organizations today, will be more efficient with the involvement of employees in this transformation. This transformation process, which is painful for both organizations and employees, has taken the transformation as a goal and can be successfully carried out with leaders who can motivate employees for this purpose and have the necessary qualities in this context. Knowing that the increase in organizational performance will be possible with the increase in job satisfaction and job performance of the employee, the transformational leader will positively affect the leader-member interaction with the good management and effective communication it exhibits, thus increasing the performance of the employee. Because the transformative leader will make it easier for the employee to adapt to the transformation process with this management style he has displayed. As a result of this study, we have done in the form

of a literature review, it can be suggested that both organizations and managers prefer transformational leadership as a management model in order to increase employee satisfaction and performance and consequently to increase organizational performance.

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Chapter 11

ESSENTIAL VARIABLE IN SECURITY STUDIES: IDENTITY AND SECURITY OF IDENTITY

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Introduction

The Cold War-era analyzed security politics with realist paradigms. Power politics and material comparisons were the main elements of security understanding. However, the post-Cold War era has witnessed new tendencies which have been more related to social, cultural, and identical realities. When Cold War ended, both traditional International Relations Theories and their materialist understandings have lost power. Because the world faces a global system with pluralist units, to explain or understand it, points of view and analysis unit should be updated with new plural realities. Identity politics has become a new reality of the international system. Clashes between ethnic, religious, social, and civilizational (coming from the past) identities have become more visible.

Security also has gained a new mentality. It starts to lengthen from states to human, from determined-materialist to can be converted or constructed socially, from holistic to pluralist. The new age, which is under the effect of globalization, has faced new struggle issues and areas; clashes between identities, between civilizations. Identity politics has become a new central topic in security studies; Security of identity. While the world has started to locate in the global village, it also has plural units, identities under its umbrella. Socialized or socially constructed identities reach the top level of Security. Then, it is clear to say that Security is also constructed, destroyed, or reconstructed socially.

Compared with predecessors, Constructivism, as a new International Relations Theory, mainly focuses on evaluating social and normative realities, variables in International Relations. In that manner, the social construction process of identity and agent-structure relations becomes the crucial worth-stressing point. According to Constructivism, actors' identity is constructed in a social process by using interaction with other actors. Accordingly, any reality of International Relations is not pre-given or static. As they are constructed socially, also they can be converted or changed socially, again. Post-Cold War era's new understanding and international events have brought social-cultural-identical forms into the forefront. It is a golden opportunity for Constructivism.

Furthermore, the Constructivist Theory's social construction-based mentality brings new stage Security Studies that met with identity politics in the Post Cold War Era. Identity-oriented security problems can be understood with the social construction process. Even they might be constructed peacefully.

The essay will discuss and analyze how identity politics are constructed and how it continues in Security Studies in the context of Constructivist

International Relations Theory. Moreover, can it be converted from clash to peaceful coexistence? Is it possible or not?

I. The Evolution of Security Approach

In the post-Cold War era, the perception of Security has changed. Primarily critical international Relations Theories have dealt with this alteration. As a known Constructivist, Alexander Wendt has stressed security and the identity concepts; Security of identity. Furthermore, other Constructivists originated from Minnesota University; Critical Constructivists focus on the culture of Security. Then, Copenhagen School suggests securitization. The core point is whether Security is related to the only military or not. According to these new understandings, Security cannot be explained by military policies and threats; military measures cannot overcome insecurity. To be clear, Security aims to prevent wars; it concentrates on providing human happiness and welfare (Bilgin, 2010, pp. 71-72).

Even if new security studies have risen to prominence in the 1990s, ideological background reached out before. For example, non-aligned movements tended to draw attention to unsafety developments beyond the western and eastern bloc in Cold War; also, they insisted on the tension of north-south separation and east-west anxiety. Alternative defense approaches in both the USA and the United Kingdom, Mamatha Gandi's followers who remark peace instead of violence, Feminist theoreticians who ask gun or male showed new ways in security studies (Bilgin, 2010, pp. 74–75).

There is no meaning for Security which is generally accepted for all places and times. In other words, Security has no sole and absolute purpose because it changes according to human's and society's political views and philosophical world view (Booth, 1997, pp. 104–119). For that reason, Security is not static; it is a derivative concept. However, to put it specific line it can be said that Security constructs much or less different living space possibilities by liberating them from constraints which determine the life of human or organization (Booth, 2005, p. 22).

New Security contains more areas than the old one. For instance, economic inequality, injustice, environmental pollution, destroying natural resources, ethnic struggles, international migration, drug traffic, and smuggling. However, this is not only meant to broad of Security. The core point is here to put a human into the center of security understandings and studies philosophically; Security for whom, Security for human. According to Western studies, Security is categorized into soft and hard Security. While soft security deals with more human-based issues, hard

Security concentrates on most military matters. However, it creates a hierarchy between them and puts hard security issues in starting the course; then, soft security issues are formed to be seen as ignorable secondary steps (Bilgin, 2010, pp. 79–80).

Baldwin (1997) defined the main points of Security; "security for whom, security for which values, how much security, from what threats, by what means, at what cost, in what time period?"

II. Constructivist Security Studies

a) Constructivism

It is clear to say that Social Constructivism mainly deals with "*how world politics is socially constructed*"? As a middle lane, it tries to emphasize socially constructed realities as an addition to material realities (Smith, 2001, p. 225).

As a first evaluation, it should be voiced that Constructivism, as Roskin (2014, p. 57) said, is the latest IR theory. Constructivism appears after the end of the Cold War. Compared with neo-realism and neo-liberalism that they experienced and theorized for nearly 60 years, it is a new one. Both the First and Second World War formulated International Relations under new ground; power. It was the heritage of the "*balance of power*" approach of the 19th century (Bınarcı, 2011, p. 3). However, especially in the post-Second World War era, International Relations started to deal under theoretical assumptions; in this era, the IR system has been analyzed according to "*power politics*" in the theoretical base.

However, these analyses that were dominated by power-based-material realities did not show successful performance. Because nearly none of them could understand and predict Soviet transformations and dissolution in both normative and rational manner (Dağı et al., 2008, p. 86). Because of material-pre-social parameters and the division of internal-external structure of states and "*billiard ball*" understanding (which voiced that all states' internal characters are identical, only their external activities show their differentiation), neo-Realists could not forecast the collapse of the Soviet Union fully. Neo-Realism and other rationalist theories tried to estimate how structural changes affect IR. For that reason, International Relations' theoretical and political world could not realize what happened. After this development, security and power, which are the basic IR theory concept, have shifted seriously (Eralp et al., 2012, p. 118). Accordingly, these results show that the corruption of the Soviet Union ended not only Cold War but also rationalist theories that ignored normative/social realities.

In contrast to neo-Realist and neo-Liberal rational theories, Constructivism emphasizes the power of ideas instead of distributing material power. According to Social Constructivism, the world can be remade through human action and intervention socially (Barnett, 2005, pp. 251–252). Also, the main point is the social construction of reality.

Constructivism mainly focuses on why Cold War ended, the significance of identity concepts and problems in current international relations, the lack of prominent international relations theories, the importance of social meanings, and material realities. Deeply, according to social Constructivism, "*social factors influence human interaction, social structures help at constituting the interests and identities of actors, the agents and structures mutually constitute each other"* (Laşan, 2012, p. 42).

While International Relations Theory was dominated by neo-Realism and neo-Liberalism in the materialist way in the 1980s, some scholars criticized them. These critics' core element is to demonstrate normative structures and values of world politics by using critical and sociological understandings. Four of these critics are very influential as founder principles of Constructivism. First was John Ruggie's review essay of Kenneth Waltz's Theory of International Politics in 1983. Waltz determines international structure with three elements; anarchy, functional non-differentiation between states, and power distribution. Ruggie directly gave attention to the second point; non-differentiation between states. Accordingly, the state has not been organized by a single form. There have been many alternative ways to formulate a state from feudal to the modern state. There is a crucial transformation from heteronomy to sovereignty. In other words, authorities are centralized in sovereignty form while there was a clash between different powers, dependent on each other. Waltz's assumptions ignore them and put them all at one point; all changes came from top- states systems. Accordingly, Ruggie said that one should be aware of interactions coming from inter-state, transnational, and domestic actors to understand this transformation. The second critic came from Richard Ashley in 1984. He voiced that neo-Realism assumes states as fixed interests; it does not deal with how their interests are constructed, transformed, and created by historical and global units. For example, neo-Realism ignores how sovereignty is socially and culturally constructed? A third critic, most known, is raised by Alexander Wendt in 1987. He brings new steps to agent-structure relations in international relations.

While materialist neo-Realism says that there is a sole relation between them; structure shapes agents and their ideas-interests, Wendt propounds that agents can "*create and transform structures*." For example, according to neo-Realist and neo-Liberalist view anarchy is a structure of

world politic which regulate and determine state's interests and relations, accordingly Wendt, anarchy is what conditions make of it. The fourth critic came from Frederich Kratochwil. He classified international rules into two; regulative and constitutive rules. Regulative rules organized already existed norms and relations. However, constitutive rules both regulate and create the possibility for ties and activities. For instance, while the World Trade Organization rules regulate world trade, sovereignty rules regulate state activities and create opportunity and capability for state acts. These show that Constructivist claims tend to overcome neo-Realist and neo-Liberalist material understandings by emphasizing normative and social construction points (Barnett, 2005, pp. 254–256).

Constructivism focuses on the point that social agents construct their world, both within their thoughts and inter-subjective connections with others. Aside from known or given material realities (i.e., power, interest, structure), it benefits from their deeper cultural and socio-psychological backgrounds or forces. Also, Constructivism tries to reply how instead of what. Constructivism relates to human consciousness and its role in international life (Barnett, 2005, p. 258).

Contrary to rational neoliberal and neorealist thinking, Constructivism keens to underline the social ontology of realities. For that reason, according to them, international relations cannot be analyzed by power relations and the structure's impact only. Norms, identities, and strategic cultures are also important determinants of the system in a social manner. Also, these powers, relations, identities, interests, cultures are not fixed or given realities. All of them are socially constructed by social interaction between agents, agent-state relations. Since all of these variables are not fixed-given and socially constructed, they can be changed and transformed. Like others, Constructivists accept state-centric understanding and interest-seeking behavior. However, they do not define the state, state identity, and interest as static. According to rationalist theories, states tend to obey regulative norms because they dominate and determine international politics as structure. However, social Constructivist put forward social construction between agent and structure. Each of them constructs the other in interactions. Accordingly, norms are constitutive. Also, security issues are not fixed-given or produced by themselves. They are made socially in interactions, and they are changed or updated in interactions socially. For security dilemmas, the social process can be a solution (Karacasulu & Uzgören, 2007, pp. 36–39).

According to Wendt, the formulation of international politics is found by material units and social basis. These basics shape both actor's acts and identity and interests (Wendt, 2005, p. 201). By this means, terms of

culture, identity, and social interaction are used in International Relations and power, security, interest.

b) Identity

According to Alexander Wendt, the most famous Constructivist theorist, "*in the philosophical sense, an identity is whatever makes a thing what it is*." (Wendt, 2003, p. 224) Agents cannot have the capability to formulate their interests or wills until they know who they are. No one cannot act without realizing himself. In other words, first, the actor realizes himself as "ego," then interests emerge as a result of ego. Ego/self is an identity that does not arise automatically without any constructer effect. Ego gained meaning with "*others*" or others' products. Therefore, the self requires "*other*" to motivate and define itself as an identity. For instance, a state which contains predominantly Christian subjects cannot be seen immediately as a Christian State. If she describes herself as a Christian and other states realize and confirm it, she will gain a Christian identity. As seen, this is a social construction process of identity. It is evidence that realities are not "*pre-given*" or "*pre-social*"; however, they are socially constructed. It is all to say; identity has two main sides; idea, which belongs to ego, and idea, which belongs to other (Wendt, 2003, p. 224). There is an interaction between self and others. Each of them determines their position and identity according to each other's effect and work.

Identity defined as "*self*" and "*other*" facilitates human life by creating new classifications. Individuals define themselves according to their ethnic, national, class, and sexual identities. It makes it easy to understand and sustain social and political life (Ertem, 2012, p. 194). However, unit calling as "other" can be a different image, different thought or history, and various states or humans. Even "*other*" can be a history of "*self*" (Hopf, 2002, p. 278).

After self-other formulation, Wendt draws a new line from identity constructed by self-other interaction to interest. Interest is what the actor/identity wants. Since one or state can define her interest without realizing who/what she is. Accordingly, identities are determinants of interests (Wendt, 2003, p. 231). If there is no interest, the identity/actor does not have acting power.

Similarly, if there is no identity formulation, interest cannot gain direction. Identity is "*belief*," and interest is "*desire*" for state activities (Wendt, 2003, p. 231). Wendt makes use of rational choice theory here; the formulation is "*(desire)+(belief)=(action)*." However, rational

choice theory evaluates variables independently; Wendt analyzes them dependently (Wendt, 2003, p. 115).

c) Security of Identity

Both security and identity are not static or unchangeable realities. To reach Security or protect identity, an actor can see other as a critical enemy. By marginalizing other and empowering self, both identities of Security and Security of identity are constructed. However, "*other*" can change in time. While France and Germany were rivals in Europe, both changed view when they have attended the same organization as NATO and the EU. It can be said that collective identity is constructed between them. They formulate new common "*other,*" and they tend to organize security policies together. It shows that both Security and identity can be formulated again, and they are constructed socially; therefore, they can be shifted. The main point here is not only socially constructed; it is interdependence between them. To provide Security, one should also protect and ensure elbow room for identity. Contrary to classical security studies, physical and material confidence is not enough for Security; the post-cold war era's new Security Studies offer that Security is a multi-dimensional concept. It includes both material and normative assurance.

"*insecurity is itself the product of the process of identity construction in which the self and the other, or multiple others, are constructed.*" In the next step, identities and insecurities are not pre-given or fixed natural things but "*are produced in a mutually constitutive process*" (Weldes, Laffey, Gusterson, & Duvall, 1999, pp. 10–11).

Security means that there is no threat against possessed values or fear that these values are attacked. Security is defined as keeping away physical threats; this position should also include Security for deals (Ertem, 2012, p. 214).

To individuals feel secure psychologically, they tend to protect and spread their own identities in their social environment (Bloom, 1990, p. 23). It is also the same for nations and states (Bloom, 1990, p. 37). In that sense, also states keen to preserve and apply their own identity and system of values to feel secure. Here, ontological Security comes into play. It refers to both physical and mental Security. Actors use mental possibilities to protect physical security. If an actor cannot overcome security concerns, self-identity will be damaged seriously in time. It is also the same for individuals and states. To reach ontological Security, one should have confidence in the other. For that reason, unclear and unstable political, social environments damage the security sensation of actors. In other words, actors always want internal and external stability to

protect and sustain self-identity. Also, exploring state identity formation is integral to national security. Constructivism explores the interior and the exterior faces of state identity concerning national Security (Cho, 2012, pp. 312–313).

According to the Constructivist Security approach;

- for societies that are a holder of identity (for whom)
- all unsafety which threatens social Security (from what threats)
- values, practices, and norms which identities contain (who provide Security)
- to protecting national and international cultural structures and values that state or society have (how Security is constructed)
- Democratic Peace, Security Community, Collective Security, Strategic Culture (which theoretical understanding to construct a common identity for states).

In international politics, the other or enemy's definition fully supports the "new world order." For example, in Second Gulf War, the new other was determined for the sake of the new world order's points; democracy, peace, multilateralism; the discovered evil was Saddam Hussein because he threatens founded new order. In other words, threat definition and identity construction have mutually constitutive effects on each other (Huysmans, 2002, p. 49).

As a criticism towards similar security concerns of Constructivism, some claimed that Security has coexisted with a conflict of identity between unionists and nationalists in Northern Ireland, between Serbs and Croats in former Yugoslavia, between Jews and Palestinians in Israel, between republics in the former USSR. The security problem is not there just because people have separate identities; it may well be that they have different identities because of the security problem(McSweeney, 2004, p. 73).

III. (Securing) Identity Politics

When one asks someone who she is, she probably responds by saying her name or her gender, or her ethnicity. All of them are the identity of her. Identity gives motivation to an actor; it suggests protecting identity and its values. For example, Kurds in Iraq tended to protect themselves against Saddam Hussein’s Arabization policies. It is a natural and reflective reaction. In other words, actors do not renounce their identities easily and can fight for ethnic identity. Awareness of ethnic identity can create both solidarities inside and marginalize (rivalry, hostility) outside.

It causes a psychological mentality that otherwise others. Then this situation can continue with organizational contrast. Organized ethnic identities try to overcome their social and political exclusion or try to integrate environmental identities. However, in a clash of identities or for the Security of identity, social-political struggle emerges generally. Moreover, suppose excluded identity is motivated by emancipation from dominant or equal partners. In that case, it will be seen that critical racial, sectarian, or religious fightings arise and shakes regional or worldwide social-political stability or security for the sake of self-identity (Şatana, 2014, pp. 303–320).

The current international system has witnessed identity politics which bases on efforts to secure identity. According to Andrew Heywood's definition, nearly all identity politics are seen as a challenge towards the West in a global manner. There is a clash on modernization understanding between identities. Western civilization has traditionally been seen as a developed and progressive community. It presents a superior social, economic, and political model which all other societies should accept. Modernization and westernization are used with the same meaning many times. While communities try to take advantage of these, they tended to protect their identical features and culture against its expansionist effects on one level. Westernization or modernization brings improvement of a market-capitalist economy, a higher degree of liberal democracy, the spread of individualism, secularism, and materialism. In that line, challenges against these values, which are seen politic-cultural hegemony of West, emerge as identity, culture, and religion clashes. Because every unit keen to rebel or oppose them with their collective identity groups, nations, societies. Both in the Middle East and Asian cultures progressively afford to challenge the West.

The Post-Cold War era has faced cultural distinctness instead of ideological rivalry, which is related to identity. In this form, identity politics mainly bases on protecting "*self*" and challenging "*other*." Samuel Huntington defined this as the Clash of Civilizations. According to him, the new age's international politics will increasingly be determined by clashes of different civilizations. Western and Islamic civilizations are the main competitors (Heywood, 2011, pp. 181–208).

Huntington explained his Clash of Civilization thesis. According to him, civilizational identity differences are more fundamental than differences among political ideas. Then the world becomes smaller; interaction rises, "*result of economic modernization and social change, local identities are getting weaker and religious identity is strengthening, providing a basis for civilizational identity*," "*the confrontation between powerful west and no-westerners leads the latter to return to their roots*,"

"*cultural characteristics are less multiple and less easily compromised and resolved than political and economic ones*," "*finally economic regionalism is increasing, hence reinforcing civilization-consciousness*" (Yurdusev, 2003, p. 150). According to these points, Islamic civilization is the most analyzed refusal against western civilization. However, Islam cannot be seen as a holistic threat to the West or the world. Vice versa, western Christian civilization cannot be seen as a holistic threat to Islamic civilizational identity. To see one social identification as holistic and brutal determined against the nature of socially constructed realities. Especially concept of civilization has not sharp division from others. They have constructed each other by interactions, and they can continue their life with interactions in a peaceful coexistence manner.

When identical, cultural, and religious challenges against the West and clash of civilizations are considered together, Islam rises to prominence as Religious Revivalism against Westernization-Modernization and Western Civilization. Here, primary separations took place in religious identity. It makes rivalry more fundamentalist. It can be said that religious or cultural identities are started to protect in fundamental ways. In that line, Islamic fundamentalism has caused new fear in the West; *Islamophobia*. Three main elements ground the term; Islam as a significant other, Islam as fundamentalism, and Muslim's migrations to the West. When all of them are considered together, Muslims become a reason for the social-political tension of Europe. They are seen as a threat against western social security (Aydın & Açıkmeşe, 2015, pp. 123–124). Islamophobia has two critical results over Muslims. Muslims cannot participate social-economic-political life of the community in which they live. Because they always witness exclusion, fear, alienation. Also, the alienated, pressured philosophy of Muslims prevents criticism. Because this excluded philosophy creates solidarity among them, they cannot criticize their Muslim brothers who act against pure Islamic points. Behaviors and attacks that are radical, extreme, and non-Islamic cannot be accepted under normal circumstances accepted by Muslims because of this philosophy (Esposito & Kalın, 2015, pp. 61–62). Muslims cannot reject some un-Islamic activities of *El-jihad*, *Islamic Jihad*, *Hizb-ut Tahrir*, *Islamic Liberal Front*, *Hizbullah*, *Hamas*, and *El-Kaide*. However, they are dismissed and protested, and the West perceives these as terrorist attacks and Islamic terrorist organizations (Aydın & Açıkmeşe, 2015, p. 118).

In civilization, civilization is a large-scale collectivity that includes social identifications in spatial and temporal extensions. In an international system manner, the global system responds to multiple units' peaceful coexistence in an anarchical or hierarchical order. Each of them contains numerous units which are closely related to each other. Nowadays'

the international system is anarchical and decentralized. They are also dominated by western civilization's values; humanism, secularism, and rationalism. Since western civilization has supremacy all over the world, the western-oriented international system becomes a global reality. However, since western civilization does not erase or cannot erase other's existences and elements and nation-states do not cancel out all social identifications, different civilizations and civilizational features still live in modern international systems. It makes the system inter-civilizational and trans-civilizational.

Despite challenges, there has been interaction between Western and Islamic civilizations. The best interaction example of civilizations is Ottoman Empire and the European Systems relations. Ottoman Empire occupied one-third of the European continent between the fifteenth and nineteenth century. Ties first emerged in the fifteenth century when was European system was emerging era. Ottomans took part in the second stage of the Italian Wars, from 1494 onwards. In European political balance construction, the Ottomans became the primary determinant toward Christian West. Ottoman pressure over Habsburgs gave the acting area to Protestanism in Europe. "The Habsburgs bid to establish a hegemonic system in Christian Europe was defeated, decisive Westphalian formulation of the anti-hegemonic nature of the European international society was made possible by Ottoman pressure on Habsburgs." Meanwhile, Ottomans followed Capitulation policy to destroy one power's supremacy in the Levant by having close relations with rival powers. Remembering that self-other relation in identity construction, Ottoman Empire was a significant other as uncivilized, terrible Turks for Europe (Yurdusev, 2003, pp. 135–138). Similarly, Islam is seen as substantial other-uncivilized for Western civilizations. However, as mentioned above, there is an inter-civilizational and trans-civilizational system nowadays; self cannot erase or beat others totally; the shared world with plural identities.

IV. Conclusion

Identity and Security, which are constructed socially by interactions, have come together in the post-Cold War era. It is formulated as security of identity. The new global age of the international system witnessed new unity beyond state-centric understanding. Units have tended to act according to their own identity instead of statist or regional classification. While each unit concentrates on protecting and promoting its identity, all of them define and implement this policy under security concerns. It securely creates identity politics. Ethnic, religious, social identities and their security-seeking behaviors have become the main topic of

international politics. Even these identity-based policies have caused large-scale concerns; clashes between civilizations.

According to Constructivist International Relations Theory, both identity and security are constructed in the social process; they are not pre-given, static variables. For that reason, they can be changed with new interactions. Clashes between identities or large-scale identifications/civilizations can be changed or converted with social interactions between multiple units of societies, nations, states, unions, and civilizations by positive attitude contrary to Realist assumptions. Although Realist mentality says that human nature and state/international system have malignant assumptions, Social Constructivism offers a benignant tendency for them by referring social construction process. When the Constructivist Theory is applied to Security Studies, all of the differences of national, ethnic, social, cosmopolitan, and civilizational identities could be articulated and coexisted. In other words, a clash of civilizations or Islamophobia could be prevented or converted.

According to Heywood's conceptualization, nearly all micro and macro identity politics are based on East-West struggle globally. It is a clash between modernized West and onlooker East. Western civilization has traditionally been seen as a developed and progressive community. It presents a superior social, economic, and political model which all other societies should accept. Modernization and westernization are used with the same meaning many times. While communities try to take advantage of these, they tended to protect their identical features and culture against its expansionist effects on one level. Westernization or modernization brings improvement of a market-capitalist economy, a higher degree of liberal democracy, the spread of individualism, secularism, and materialism. As a result, many Easterners have started to see the modernized West not only as a modernization tool but also as politico-cultural hegemony. At this point, East's identitical resistance has emerged. They tend to create a protectionist reflex and then return to the past by referring to their glorified roots in order to reach supposed characteristic modernization. As a supplementary contribution, Huntington's Clash of Civilization conceptualization defines major competition between them by going a step further. Accordingly, the new age's international politics will increasingly be determined by clashes of different civilizations. The concept of self and other gains new significant character. Western and Eastern Islamic Civilizations are the main actors in that process. Civilizational resistance brings identitical, cultural, and religious challenges. Both sides replan their philosophical (values) and material security understandings. In other words, large-scale (securing) identity politics shows up.

These identitical-civilizational clashes have emerged in political and social interactions between sides, as mentioned. The social construction point of Constructivism has clearly presented an East-West clash. From another perspective, social and civilizational identifications dominated by social, cultural, and historical interactions would prevent or convert conflicts with actors' plural values. Then, a peaceful world would be constructed with pluralist coexistence.

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Chapter 12

INTERPERSONAL CONFLICT AND PSYCHOLOGICAL - PHYSICAL STRESS SYMPTOMS OF TURKISH EMPLOYEES: THE MODERATING ROLES OF PSYCHOLOGICAL CAPITAL AND CONFLICT MANAGEMENT STYLES[1]

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1. Introduction

Conflict is a part of working life. While people are trying to adapt to constant changes in their work environment and meet its demands, they want to satisfy their own needs and desires. In this process, there may be some discrepancies between people's own needs and demands of their working environment which may result in intrapersonal and interpersonal conflict.

Although it is a common fact of organizations, interpersonal conflict at work and symptoms of stress have not been studied very frequently. It has shown to be positively related to emotional exhaustion, absenteeism, and turnover intention (Giebels & Janssen, 2005). Studying the effect of moderating variables on the relationship between interpersonal conflict and stress symptoms seems important as these symptoms might cause further problems for the individual such as psychological disturbances and physical illnesses as well as unwanted organizational outcomes as Giebel and Janssen's study has shown. Therefore, the present study aims to examine the effects of some moderating variables on this relationship. For this purpose, two individual related variables were chosen to be examined in relation to their moderating roles: psychological capital and conflict management styles. One reason for focusing on these variables is that they are important in dealing with relationship related stressors. The second reason is that they are not as fixed as personality traits and therefore changeable (Luthans, Avey, Avolio, & Peterson, 2010). Therefore, if some evidence is found in relation to their effects it would be possible to suggest organizations to design some training programs to help strengthen these characteristics in their employees.

2.Theoretical Background and Hypotheses

2.1. Theoretical Background

2.1.1. Interpersonal Conflict at Work

Jha & Jha (2010) cited definition of interpersonal conflict at work (Rahim, 2001) as disagreements between subordinates, peers, supervisors, customers, & managers. In addition, Spector and Jex (1998) explained interpersonal conflict at work as the acts that can be observed as both overt and covert. An organizational member shouting to his/her peer is an example to the overt act of interpersonal conflict; seem in direct verbal language and aggressive behaviors. On the other hand, an organizational member spreading rumors or grapevine about his/her peer is an example to the covert act of interpersonal conflict at work as water-laden rain clouds the responsible not seem directly and hidden. In a study, Baillien,

Bollen, Euwema & Witte (2014) referred to the past studies that make the differentiation between interpersonal conflict and bullying (referred as "mobbing") in which incidents of unresolved conflict may escalate to bullying and bullying has considered as being more counterproductive and less ethical than conflict since it results in biased, stigmatized and discriminated "victims" as lamb animals and having worse consequences than conflict. Generally made to loved ones to hurt and stress, however, ironically people say "don't kill, let him/her alive if you don't love" as a motto.

2.1.2. Stress Symptoms

Related with job stress literature, insecure (Türetgen, Sertel Berk, Başbuğ, & Ünsal, 2012) or adverse (Motowidlo, Packard, & Maning, 1986) relationships at work have been frequently indicated as a significant job stressor. The transactional approach to job stress considers the dynamic and interactional relationship among stressors, moderators/mediators and strains or reactions (Hurrell, Nelson, & Simmons, 1998). Individual health related reactions to stress can be categorized into three groups. The first group includes the physical reactions given to stressors and are called as physical symptoms of stress. Examples of these include pain, physical tiredness, etc. (Beehr & Newman, 1978). The second one is psychological reactions include tension, anxiety (Beehr & Newman, 1978), burnout (Maslach, 1993) and depression (Heinisch and Jex, 1997) and called as psychological symptoms of stress. Although it is not examined in this study; the third group consists of bad habits such as substance abuse as behavioral symptoms of stress (Beehr & Newman, 1978).

2.1.3. Psychological Capital

Psychological capital has been suggested as a second order construct that consists of four positive psychological resources, namely "hope", "self-efficacy", "optimism" and "resiliency" (Luthans, Avolio, Avey, & Norman, 2007). Hope is defined as having will power and way power to attain his/her goals (Snyder, 1995). Self-efficacy, based on extensive research conducted by Bandura (1994) is defined as one's confidence about exerting necessary effort to successfully execute a task within a given context. Optimism, third component, refers to having positive expectations regarding the future events and/or situations (Seligman, 1991). Lastly, resiliency is defined as the capacity to recover easily when faced with negative events, setbacks, failures, adversity, and conflict (Luthans, Vogelgesang, & Lester, 2006). Avey, Wernsing, & Luthans (2008) mentioned that people who are mindful instead of processing information otomatically, intentionally choose to have much more

psychological capital and positive emotions and that leads to change for positive organizational attitudes and behaviors rather than negative ones i.e., engagement contracts and organizational citizenship behaviors rather than attitudes of cynicism and deviant behaviors. Wu & Chen (2018)'s research in Taiwan revealed that frontline employees and the backstage invisible managers create a shared value culture in tourism hotel management sector. Through mindfulness meditations, mental rest, and psychological capital development, they flexibly and creatively respond to and learn from customer feedbacks. Wang, Wang, & Xia (2018) emphasized that psychological capital is an important factor that decreases the negative effect of safety-related stress on safety participation behavior of construction workers in China by facilitating to cope with stress process by self-efficacy, resilience, hope & optimism. Kim, Perrewé, Kim & Kim (2017) suggested the "heroes' model" to explain how psychological capital is important for sport organizations' well-being. The inputs of meaning, volunteering & identifying with sport, team, & organization, being a proactive member, having authentic leadership style, influencing by political skills i.e., astuteness, networking, sincerity, multicommunication, & trust that result in applications of psycap through active goal setting, doing what it requires, looking to the supportive side, and recovering from difficulties and problems. Thus, employees can see their contributions fairly in the overall perspective and through human resources management practices, they are more satisfied, feel and perform better, and they become an organizational citizen. Gupta & Singh's (2010) mentioned that psychological capital reduces the negative effect of the difficult aspects of high-performance work practices such as otonomy, merit pay, target setting, control, work demands that can be stressful.

Regarding capital management there are some slow turns and stops of effective decision-making. As I framed here, the cost-and-comfort dilemma is an important issue in capital management. As an example, you have a worn teapot however it is usable. You have a limited economic capital. What will you do to decide? If you buy the teapot from the marketplace, there is a psychological problem of spending economic resources. When you do not buy the teapot, there is a problem of inconvenience about not being able to work for long hours without drinking tea. If the vital thing is to work, we should buy the teapot. However, if we will not work that much, we need to and want to do another thing and teapot is going to be extra, it might be better giving up shopping and buying to feel more psychologically comfortable and not to regret. When we don't buy the teapot and throw away the one in the house, we risk being left alone without anything. As another option you might escalate (Ordun & Akün, 2018), you have the economic capital, however taking another teapot can

be a wrong decision if you haven't thought about the good reasons behind all possibilities that you evaluated.

In addition, there are problems of psychological vulnerabilities. Let's mention that I have a personal history that I lack enough "money". If I haven't recovered, I react more negatively when I perceive injustice for assuming "zero (0) financial, accountable, and material assets". I may tend to find and use it in the wrong way or amount, I might try to compensate with something else and deceive myself that consequently I switch to another state of ill health. If I've healed, I know what to do when I am confronted with money and I feel more control. I can see the good sides of not having too much money and be grateful when I have. Resolving this problem, makes me happier and I learn from past memories and accept my feelings as they are. I access to the wisdom of knowing what I can do better to optimize my situation, empowerment is useful and also, I get strengthen psychologically.

For all of the cases above, owning capital might be dangerous that it gives the power to use it out of good purposes as a tool against people for psychological warfare. It can also be perceived as a threat even that you do not have the intention to use it for bad purposes. The problem is although it stretches the iron prison cages' loneliness to mercy freedom we can't show and dance with what we can't share that normally might make other people skeptical, envious or jealous. One cannot have all of them alone because of resource constraints. Also, each person has different specific resources that can contribute to other people with good intentions to make cooperation without just having to give or take. Although sharing is nice and virtuous, both labor and experience are difficult and expensive, there are difficult and unlit / dark roads and enlightened paths for all. The diversity and variety of learning journeys, passions, excitements, dreams, values, & meaning of love are unique. It should not be that easy to obtain so that the value is known and for giving peace, happiness, and gratitude. Therefore, having capital won't give us any chance but forcing us to take responsibility and make effective conflict resolution. It teaches us to stay in social relationships that one has the conscientious, aim, love, and legal law power and right to entrepreneur, negotiate, supported, and sides respect and protects each other' rights and not abuse, resources are not that exhausted, not risked & that one side gains and enjoys a little much more. People might have the illusion of triumph one-side on their own. In reality, even if one side loses something more, historical events such as wars advised that destructions and damage affect both or multiple sides because of social network interdependence. The smaller the total loss, the less the loser and the winner captains inflated the curtains of sail boats / ships with the wind and with little loss to find a way in the

horizon or sunk and swim together in the shallow sea. Like farmers, we sow and reap friendly and good seeds / spirits. As Turgut & Kalafatoğlu (2015) mentioned good results occur when used for good purposes with mindfulness, effective decision-making, managing conflict with diversity.

2.1.4. Conflict Management Styles

On the relationship between interpersonal conflict and stress symptoms, some other moderating variables might also play roles. One of these is employees' conflict management styles. For the present study, the model that Rahim and Bonoma (1979) and Rahim (1983) conceptualized is used. This model involves two facets for styles of handling interpersonal conflict. These are "concern for self" and "concern for others". Concern for self can be defined as the extent to which a person tries to satisfy his/her own needs and desires. Concern for others can be described as the extent to which a person tries to satisfy the needs and desires of the other party. Disagreements can be due to competing with others instead of doing own best, social perception and attribution errors, perception of injustice due to wrong social status, procedure, information and money distribution "I should have had that, not another", not to let go of the superior characteristics, defense mechanisms, clash of needs / motivations, downplaying individual and cross cultural differences or too much emphasis on differences, attitude incongruity, power and inequality relations, not conforming to expectations in relationships, face and image saving display rules. Effective model of conflict management is a balancing act. A strategy i.e., prohibiting can be used in different styles. Not any style and strategies are always appropriate, these depend on context, situation, and people (Folger, Poole & Stutman, 2013). Therefore, if people will not ruin the relationship, fighting with joking, voicing, singing, dancing, crying, and laughing may be better for problem solving than not speaking at all. As an example, Akün & Behrem (2019) found out that instead of political social influence tactics, exercising with colorful diversity and critical democracy by correct feedback and candid self-verification for intimate relations is related to well-being, health and happiness in a university sample consisting of sixty people in Istanbul. Asking to God and good angels in world global different cultures from trustful and holy Quran, Bible or Torah miraculous, mysterious, and healing prays for all creatures and biological diversity are indirectly related with conflict management and might raise psycap and mindfulness. You understand what you need, troubled, how you can understand others, and how you will be become happy in the long term as a good God's servant. This might be different from what you want however might teach you how you will be more fortunate, honorable, principled, and truthful, what you should

eliminate, to touch lives for goodness with grace and politeness and do not wait for direct return, and also shows the way for conflict managements. Creative arts, music, internet technology, innovation, social media, and internet tools such as "Facebook", "Twitter", "Instagram", "You Tube", "Gmail", etc. can be useful to the extent that people connect, take, and give support with privacy, digital / cyber safety and anti-virus by emojis, opinions, documents, comments, projects, posts, photographs, videos, films, stories, chats, & news.

Based on the two facets regarding concern for self and concern for the other, Rahim and Bonoma (1979) and Rahim (1983) have conceptualized five conflict management styles that people use in the face of disagreements. These are "integrating", "compromising", "dominating", "obliging" and "avoiding" conflict management styles. Integrating style can be described as having mutual high concern for self and other party involved in conflict. In this style, the person tries to solve conflict by collaboration. Compromising style is associated with meeting on a possible acceptable mid-way for both parties. Dominating style can be characterized with win orientation of one party and involves forcing the other party to accept his/her demands and desires in which the relationship doesn't last long. Obliging style can be defined as unselfishly sacrificing one's own needs and desires for satisfying the needs and desires of others. Avoiding style can be defined as having mutual low concern. This style involves ignoring and repression of conflict as well as withdrawal from and precautions to it (Rahim, Buntzman, and White, 1999 & Rahim, 2002). Similar distinctions among the styles have been made by other researchers and measurement devices have also been developed based on these. For instance, Thomas (1976) used the term "collaboration" for integration, "competition" for dominating, and "accommodation" for obliging. He also included the categories of "compromising" and "avoiding" like Rahim and his colleagues did. In the literature, these styles have been quite often investigated in relation to the frequency of their use in various employee groups (e.g., Cavanagh, 1991). Regarding conflict management styles, a study showed that some conflict management styles have negative effect on stress (e.g., Hyde, Jappinen, Theorell and Oxenstierna, 2006). In one of the studies (Giebels & Janssen, 2005), positive relationship between conflict stress and emotional exhaustion, absenteeism, and turnover intentions have been moderated by objective third party help. It has found out that for respondents reporting low third-party help, this relationship is stronger.

The results of a research (Sodacı, 2019) with 187 call center employees in Adana; city in a Mediterranean region Turkey and Gümüşhane; city in a Black sea region of Turkey showed that domination affects surface acting

positively and cooperation affects deep acting and genuine emotional labor effectively positively. In other words, hiding, masking the negative feelings, or selecting to show the expected emotion and behavior less transparently due to appropriate display rules by changing the negative emotion to be more convincing; "deep acting" and expected emotions arising spontaneously and naturally; "genuine emotional labor" found to be worth to change for cooperation. Whereas with the redundancy of not to change feelings, one can only change emotion expressions. This shows the theatral perspective of conflict management (Sodacı, 2019). Another research (Akün, 2021) in Bayrampaşa, Çekmeköy, Şişli & Bahçelievler districts in Istanbul, İzmit & Tekirdağ in Marmara Sea region with two big clothing companies' six store teams of 160 employees showed that to be aware of and to perceive the social environment as it is, learning in teams and team development, making sense of memories about one's own and others in teams enhances team performance by positively affecting acceptance and feeling well and happy in the team. Social learning methods diversity; communication, modeling, and knowledge diversity directly affect team performance positively (Akün, 2021). Psychological safety can be a precondition for naive trust relationships and is effective in conflict, diversity management, and effective learning in groups and organizations (Porges, 2011; Edmondson, 2019; Akün, 2021). Another research with 60 auditors in Istanbul showed that mindfulness healthy social activities with sports, breathing exercises, sitting in the crowded street café listening to the rustle of beautiful tree leaves in the sunny, rainy or snowy day and watching panorama, in a green environment smelling beautiful flowers, looking to the moon and stars on the sky in the street night, spending quality time instead of working hard, walking in the open fresh air with oxygen out of workplace or out of house in the day, mercy freedom, and also healthy way of life with work social life-private social life balance with family and friends, self-expressive clothing, drinking water, eating vegetables and fruits, sleeping well reduces stress symptoms, heal psychological disorders, the burden of emotional labor, & body's memory, therapeutically useful, renew positive energy, allow to enjoy the moment, increase psychological capital, comfort to solve problems, provides physical, mental, cognitive, social, and psychological health and is a part of postmodern cultural capital (Akün, Kavut, Erden & Aktaş, 2020). Emotions are indispensable part of conflict management process. Conflict shows us what we like and joyful about, also what we fear, what we are angry and sad with that we need to be aware and to understand the message in dealing with uncertainty. Effective conflict management is related to anger management and physical health; reducing and regulating blood pressure and flow. As another examples, guilt might result in feelings of responsibility and cooperation or shame might result

in more self-protecting coping with competing, avoiding, and obliging (Behrendt & Ben-Ari, 2012) that may harm if they are dominantly much. Feelings of envy and jealousy might also be dysfunctional for managing conflict (Veiga, Baldridge & Markóczy, 2014). Jealousy is related to fear of losing someone in a rivalry and deception triangle. However, envy describes the will to have something that someone has or that someone also not have anymore. Fair treatment in organizations will decrease these feelings (Veiga, Baldridge & Markóczy, 2014). Insko (1967) emphasized that attitude change can be by discussing thoughts and feelings on various grounds, trying to persuade, making the other to obey, reducing inconsistencies, and maintain balance.

Psychological flexibility provides changing and learning from wrong relationship patterns and conditioned stimuli i.e., repeated fight, lie, and deception in relationships. It makes possible stepping from the comfort zone, "walking the way you choose with courage and love", not others want you to walk on. It enables acceptance without negative judgment or losing value though gives the chance of not to choose and provides to use the tools, machines, and resources. There must be only close and sincere friends who will love you when you have nothing, accepting your value as you are with your inadequate, crazy, ugly, and poor aspects without putting you in any form they want. Flexibility is about being fair and having justice for all contradictions; innocent and not innocent, poor and rich, etc. without being brutal / cruel. Flexibility is like surfing with / riding water waves. When the wave hits, you do not fall into the sea. Flexibility is about being happy by living the moment together with people and being stronger by recognizing and accepting pain, separation, and loneliness, and tasting the bitter honey together with its bitter and sweet. Flexibility is also related with forgiveness. Cameron (2007) mentioned that there are three kinds of forgiveness that is defined in the literature. One is "begrudging forgiveness" with the negative feelings of revenge; the other is "pragmatic / utilitarian forgiveness" with letting go of accusations and negative feelings to keep the relationship going and another is "transcendent forgiveness" learning from negative events with empathy, love, and positive feelings. Transcendent forgiveness relates to not suppressing and not forgetting. Forgiveness depends on the situational conditions i.e., offender wants to apologize, and offense is not very undesirable, intense, and intentional. Forgiveness affects immune system, brain, nervous system, cardiovascular system, bodily functions, and performance to be strong and healthy. It is a virtue that provides excellence for less mistakes, improvement, growth, self-expression, network building, recovery from trauma, empathy, support, psychological healing, health, and happiness

(Cameron, 2007). "Tit-for-tat with forgiveness" is peaceful "dolphins" typology style (Lynch & Kordis, 2010).

Conflict management styles and stress are not clinical terms, although they make the way for professional help to gain full health. People who are not psychologically healthy are more vulnerable to managing resources, conflict, getting social support, preventing violence, word accurate measure of demands for negotiation from early childhood on and hesitant to approach treatment. (Oltmanns, Neale & Davison, 2003). Diagnostic criteria (APA-DSM) and stories of people with anxiety, depression, panic, post-traumatic stress disorder problem, attention deficit and hyperactivity, obsessive compulsive disorder problem, schizophrenia, paraphilia, emotional eating disorder problem, paranoid personality disorder problem, psychopathy, autistic disorder problem, borderline disorder problem, bipolar disorder problem, multiple personality disorder problem, substance addiction, suicide inclination, marriage, sexual relaxation, sexual identity disorder problem, and mood disorder problems are also implicit in the way that these two words "stress" and "ineffective conflict management" are not clearly emphasized but understood in all layers from deep to surface in various and different ways although these illnesses are more differentiated and comprehensive than stress. (Oltmanns, Neale & Davison, 2003). The cases that do not exactly overlap with the psychiatric diseases in the diagnostic criteria but carry some symptoms of the disease that we meet in our daily life are the cases without mental hospitalization, intensive substance medication and therapy, such as a non-clinical obsessive person that has a cleaning and hygiene anti-virus compulsion and hand & body washing with water soothing ritual may be a supervisor or a coworker that makes the work life difficult for others and results in conflict perception unintentionally. Ineffective conflict management, stress, and unsatisfaction seem visible at the surface like "crème de la crème". It is understood that the problems in these processes can be improved to a full health with clinical therapies that provides learning to get efficiency from the good aspects such as being careful and precise for a non-clinical obsessive person. Foucault (2003) mentioned psychiatry clinic is a special and private place for counseling with care and that the accumulation of traditional knowledge and patient cases are discussed with a "clinical look" and practiced with all clinicians.

In the book "The Secret of the Soul", Buhlman (2001) described detailed research with more than ten thousand people in more than thirty countries about "out of body experience", which is one of the experiences beyond the understanding of science with multiple spiritual interactions in the body. It is experienced with the body such as floating / fluctuating, high energy sensations, altered motion perception, feeling of being reborn

/ rebirth, fatigue, the feeling of other in one's own body, strange noises, tremors, and freezing. Out-of-body experiences starting from childhood are thought of as nightmares at night or discomfort during daytime & stated that they are related to unconscious stress. Also, changing body vibration and intensity; the desire to communicate with deceased relatives, the desire to communicate with living and loved ones, to balance unresolved energies in the past, and to heal diseases by working with out-of-body energy, is a transformative learning experience that enables the person to attain his/her forgotten essence and immortality instead of suffering. This topic in "aviation literature" has explained that people can act with the energies of different people in the bodies that also signals the importance of getting off safely, healthily, lively, and pleasantly like "a butterfly / a bird" and empathizing with the other people in managing conflicts.

2.2.1. Moderating Relationships Between Variables of Study

2.2.1.1. Moderating Role of Psychological Capital Between Interpersonal Conflict at Work and Physical and Psychological Stress Symptoms

Up to date, research results have shown that psychological capital is related with many positive outcomes. Among these, there are increased performance and job satisfaction (Luthans, Avolio, Avey, & Norman, 2007), organizational citizenship, intention to remain in the organization and less counterproductive work behaviors and less organizational cynicism (Avey, Luthans, & Youssef, 2010), conscious awareness, positive emotions, positive workplaces, positive organizational change (Avey, Wernsing, & Luthans, 2008), well-being (Avey, Luthans, Smith, & Palmer, 2010), and decreased level of stress symptoms (Avey, Luthans, & Jensen, 2009). The moderating effect of psychological capital has not been investigated very frequently. It is expected in this study that positive psychological capital might moderate interpersonal conflict and stress symptoms relationship.

Regarding its dimensions, one of them is "hope". Snyder (1995) stated that hopeful individuals set goals and exert effort to achieve these goals and prepared to possible setbacks to accomplish them by generating alternative pathways for goal attainment. Hope has been investigated in relation to stress process quite frequently (e.g., Irvin & Acton, 1997; Ong, Edwards, & Bergeman, 2006). Among these studies, Ong et al. (2006) found out that hope measured daily has been linked with low level of negative emotions and adaptive recovery from stress. Highly hopeful persons have showed lower level of stress reactivity and more effective emotional recovery from stress. In consistent with this view, it can be

suggested that whereas conflicting relationships might easily cause stress symptoms, individuals who are highly hopeful might concentrate their mind on their work goals and needed actions to actualize these goals rather than the conflict. In other words, if there are people in the environment who obstruct their ways to their goals because of interpersonal conflict, hope might also be helpful. In this case, thinking about alternative ways to reach the goals and trying to actualize them might help the person adopt an active approach to the problem and find possible ways to solve it before developing stress symptoms.

"Self-efficacy", the other component has been frequently indicated as an important resource of individuals to cope with stress as well as appraising the stress (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005). Therefore, it is expected that individuals whose self-efficacy are high might believe that they can successfully manage the conflict and even cannot be affected by its negative consequences. For instance, these people might believe that even if they quit their jobs because of conflict at work, they might find a new one easily because of their abilities. This belief in turn, might result them showing fewer stress symptoms. In their research, Ordun & Akün (2017, 2018) found out that it is also related with self-actualization, emotional intelligence, and personality. "Optimism" (dispositional) another component has found to be a moderator between stress and psychological well-being (Chang, 1998). Scheier & Carver (1985) also showed that optimists are less bothered by physical stress symptoms. Individuals having high level of optimism attribute negative events to external, temporary, and situation specific reasons and positive events to personal, permanent, and pervasive causes as Seligman (1991) the father of positive psychology suggested. By doing this, optimist people might be less likely to experience negative feelings of self-blame and inadequacy after adverse events and less likely to lower their confidence and morale (Luthans and Youssef, 2004). Thus, a person who is extremely optimistic might see conflict as something that is not caused by them (e.g., "The boss is shouting because he/she is an angry person"), something that is temporary (e.g., "Today everybody is in a bad mood at work but soon they would calm down"), and caused by a specific factor (e.g., "Not complying with rules causes conflict"). Such kinds of explanations might weaken the relationship between the perception of interpersonal conflict and the person's stress symptoms. Although, this attribution is self-serving and risky in some situations; besides opportunity seeking optimism correct attributions with awareness and self-reflection for future circumstances what to be done differently is known to be better (Luthans, Youssef & Avolio, 2004). The last component of psychological capital that is "resiliency", as opposed to other components emerges when the

person faces stress. In that sense, bouncing from negative events with resilience is important not only for survival and successful performance (Arnetz, Nevedal, Lumley, Backman, & Lublin, 2009) but also for stress resistance (Kinman & Grant, 2011). Although conflicting relationships is disturbing and stressful for many people, resiliency might prevent the person from stress symptoms. Interpersonal conflict is stressful on its own and resilience is a good resource to protect and recover one's psychological and physical health.

Based on these views the first hypothesis of the study is as follows:

Hypothesis 1: Psychological capital moderates the relationship between interpersonal conflict at work and psychological and physical stress symptoms of employees: Participants having higher level of psychological capital are less likely to experience psychological and physical symptoms of stress caused by interpersonal conflict at work.

2.2.1.2 Moderating Role of Conflict Management Styles Between Interpersonal Conflict at Work and Psychological and Physical Stress Symptoms

It is expected in the present study that integrating and compromising styles might decrease the strength of the relationship between interpersonal conflict and stress symptoms as both of these styles concern for need of all parts involved in the situation. In other words, people using these styles actively try to find satisfying solutions for everyone affected by the conflict. In some instances where resources are limited like in many work settings, it might not be possible to solve problems in the way that maximize everybody's interests. In these cases, compromising might be a better choice. Therefore, it can be suggested that the use of integration does not exclude the use of compromising. One or another can be used according to the situational requirements. It is expected that people using both styles are more likely to produce solutions that might bring benefits not only to themselves but also to others. This in turn might help decrease the effects of interpersonal conflict on stress symptoms. Therefore, Hypothesis 2a is formulated as below:

Hypothesis 2a: Integrating and compromising styles of conflict management moderate the relationship between interpersonal conflict at work and psychological and physical stress symptoms of employees: Participants using these styles are less likely to experience psychological and physical symptoms of stress caused by interpersonal conflict at work.

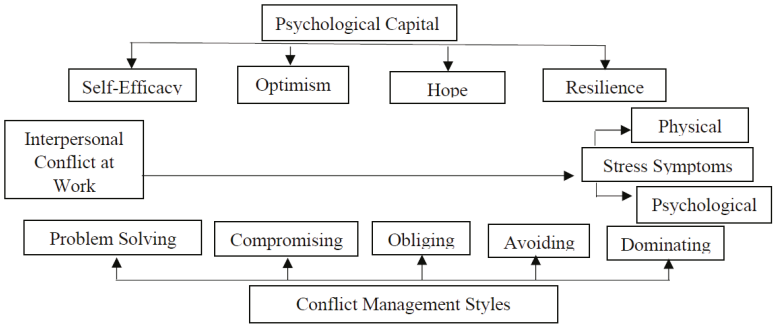
Other conflict management styles including dominating, obliging, and avoiding styles are expected to increase the strength of the relationship between interpersonal conflict and stress symptoms. Frequent users of the

first two styles approach the conflict situation as something they could win or lose. People using dominating style struggle to have their wishes being accepted whereas individuals adopting obliging style generally obey the wishes of others. Although dominating style seems beneficial in the short term, in the long run it might be harmful. There are reasons for this. Firstly, the person who would like to dominate the others constantly might receive negative reactions from his/her social network. Secondly, insisting on one's interests and forcing the others to obey his/her wishes might need a lot of energy and thus can be exhausting. On the other hand, in obliging style people usually act in a passive way. While obliging style must be necessary for sometimes (such as in some subordinate-supervisor relationships) the frequent use of this style might cause the person to bottle up her/his feelings and feel worthless. Similarly, while avoiding style sometimes can be helpful especially when a cooling off period is needed before solving a complicated problem, its frequent use might not be beneficial for individuals. First, avoidance is a passive type of behavior (Rahim, 2002; Jex, Bliese, Buzzell, & Primeau, 2001) which might gradually weaken one's self-efficacy. Although there is no study looking at self-esteem and styles of conflict management, there is evidence that passive coping styles might be associated with lower self-esteem and higher level of stress symptoms report (Ni, Liu, Hua, Lv, Wang, & Yan, 2010). Secondly, the solution found by avoidance is only temporary and there is no way that a person avoids the problematic situation forever. Thus, higher level of avoidance prevents the person from facing the interpersonal conflict and consequently finding out permanent solutions to the problem. Therefore, if it is the most frequently adopted style, many unresolved issues might result in further problems for the person to be faced in future.

Based on the views expressed above Hypothesis 2b is stated below:

Hypothesis 2b: Dominating, obliging, and avoiding styles of conflict management moderate the relationship between interpersonal conflict at work and psychological and physical stress symptoms of employees: Participants using these styles are more likely to experience psychological and physical symptoms of stress caused by interpersonal conflict at work.

2.3. Research Model



3. Method

3.1. Sample

The questionnaires were sent online to 243 employees in companies from different sectors. The sectors of the sample population are white goods, consultancy, electric, finance, fast moving consumer goods, holding, retail, insurance, and telecommunication. Altogether 200 participants filled in the questionnaires and these were used in analysis. The sample has consisted of 125 (62,5 %) women and 75 (37,5 %) men. The majority (54 %) of respondents' age is 21-30 and this has been followed by the respondents' age ranges from 31 to 40 (36 %). Only a small portion was older than 41 (10 %). More than half of the sample is married (51 %) and most has at least an undergraduate or graduate degree (94 %). A high portion (68 %) has been working in the company between equal or less than 5 years.

3.2. Measures

The research questionnaire consists of questions regarding demographics and interpersonal conflict at work, psychological and physical stress symptoms, psychological capital, and conflict management styles scales.

Demographic Form: The respondents were asked about their sex, age group, marital status, education level and the length of time they have spent in the company.

The Interpersonal Conflict at Work Scale: The Interpersonal Conflict at Work Scale (Spector & Jex, 1998) has been used to measure interpersonal conflict at work. The scale consists of four items which assess how much participants perceive interpersonal conflict in work life. It measures on

a 5-point Likert scale and higher score represents greater perception of interpersonal conflict in work. One example item is as follows: "How often are people rude to you at work?" The scale was translated into Turkish and an experienced researcher in psychology who are eligible for English checked the translation. To check the comprehensibility of the items it was also translated by a person who is representative of the sample. These translations were compared to get most understandable and appropriate translation of the scale. The scale's Cronbach's Alpha internal consistency reliability was .69 for this study. All corrected item total correlations were found to be above .20 in the study, as required (Kline, 1986).

The Organizational Conflict Inventory-II (ROCI-II) Scale: The scale which was developed by Rahim (1983) assesses integrating, compromising, dominating, obliging, and avoiding conflict management styles. Examples of items are as follows: "I try to investigate an issue with the other party to find a solution acceptable to us." (integrating), "I negotiate with the other party so that a compromise can be reached." (compromising), "I am generally firm in pursuing my side of the issue." (dominating), "I give into the wishes of the other party." (obliging), and "I usually avoid open discussion of my differences with the other party." (avoiding). An organizational member responds to each statement on a 5–point Likert scale. A higher score represents greater use of a conflict style. The scale consists of twenty-eight items. Again, scale was translated into Turkish and independent academicians evaluated for enhancing a cross check. The studies have showed that the results of the factor analysis of the scale support the five-factor model (Rahim and Magner, 1995). For the sub-dimensions of the scale internal consistency reliability coefficients were found as follows in this study: for integrating the value is. 87, for obliging the value is .74, for dominating the value is .71, for avoiding the value is .75 and for compromising the value is .56. Corrected item total correlations for each subdimension were found to be above .20 in the study, as required (Kline, 1986).

The Psychological Capital Scale: The scale was developed by Luthans et al (2006). The scale assesses four components and consists of 24 items rated on a 6-point scale. However, in this study, for providing coherence of the scale for all measures, it was used as a 5-likert type scale. A higher score has represented greater capacity of psychological capital and its dimensions. Turkish translation of the scale was found reliable and valid, and the results of the factor analysis have supported the four-factor model (Çetin and Basım, 2012). The scale's Cronbach Alpha internal consistency reliability was. 90 for this study. Examples of items are as follows: "If I should find myself in a jam at work, I could think of many ways to get out of it." (hope), "I feel confident in representing helping to

set targets/goals in my work area." (self-efficacy), "I look on the bright side of things regarding my job." (optimism), and "I usually take stressful things at work in stride." (resilience). For the sub dimensions of the scale internal consistency reliability coefficients were as follows: for hope the value is .77, for self-efficacy the value is .81, for optimism the value is .57, and for resilience the value is .66. Corrected item total correlations for each of the subscale are found to be above the .20 in the study, as required (Kline, 1986).

The Physical and Psychological Stress Symptoms Scale: This scale was developed by Patchen in 1970 (cited in Cook, Hepworth, Wall, and Warr, 1981). The categories regarding psychological stress symptoms include "feeling depressed," "tired" and "nervous". The categories regarding physical stress symptoms include "headache", "upset stomach, gas or bloated feeling", "trouble getting to sleep". Consistently with other measures it was used as a 5-likert type scale and a higher score have represented having more frequent psychological or physical stress symptoms. The scale was translated to Turkish and to check the comprehensibility of the items it was also translated by a person who is representative of the sample. In the measure of the stress this scale was preferred because the scale is short, easy to answer and enables to assess both psychological and physical stress symptoms. Although in Turkey there is not any research finding reported testing the validity and reliability of the scale, there is enough evidence that the scale is valid and reliable (Cook, Hepworth, Wall and Warr, 1981). In this study, regarding the scale's validity, Kaiser-Meyer-Olkin value was found .77 and sample size sufficiency was supported. Bartlett's Test of Sphericity Chi Square value was found 435.90 (p=.000). Thus, the variables were found to be appropriate for factor analysis. Factor analysis has supported two-factor model consisting of psychological stress symptoms and physical stress symptoms. Factor loadings for psychological stress symptoms have ranged between .74 and .85 whereas factor loadings for physical stress symptoms have ranged between .51 and .88. For psychological stress symptoms Cronbach Alpha internal consistency reliability was found .80 whereas for physical stress symptoms the value was .72. The item total correlation values for each of subscale were found to be above .20 in the study, as required (Kline, 1986).

4. Analysis

Descriptive statistics, Pearson correlation values and hierarchical regression analysis among the research variables with mathematical symbols can be found in Tables.

As shown in Table 1 interpersonal conflict shows positive and significant low level of correlation values with both types of symptoms. Interpersonal conflict is also correlated with psychological capital and integrating style negatively. As expected, both symptoms of stress are correlated with each other positively at a moderate level. Psychological capital is negatively related with both types of stress symptoms and positively related with integrating and compromising styles at low levels. Some significant relationships among conflict management styles also exist. Integrating and compromising styles have positive relationships with each other at a moderate level. Compromising style is positively related with dominating and obliging styles at low levels. In addition, obliging style has a positive relation with avoiding style. Lastly, integrating style is negatively related with avoiding style.

For the test of the hypotheses, four hierarchical regression analyses have been carried out. The first analysis included sex, interpersonal conflict, psychological capital and interaction of interpersonal conflict and psychological capital as the independent variables and psychological symptoms as the dependent variable. The second analysis used the same independent variables but employed the physical symptoms as the dependent variable. The results of these two analyses are presented in Table 2. The third analysis was carried out with the independent variables of sex, interpersonal conflict, conflict management styles and interaction of interpersonal conflict and conflict management styles. In this analysis the dependent variable was psychological stress symptoms. And finally, the last regression analysis was repeated with the dependent variable of physical stress symptoms. The results of these analyses were also shown in Table 3.

The results (see Table 2) have showed that psychological capital moderates the relationship between interpersonal conflict and physical stress symptoms. No moderating effect of psychological capital has been found on the relationship between interpersonal conflict and psychological stress symptoms. This result shows that Hypothesis 1a is supported partially. The results also have showed that psychological capital decreases the level of psychological stress symptoms. The moderating effects of compromising and obliging styles of conflict management have been observed for the relationship between interpersonal conflict and physical stress symptoms (see Table 3). While compromising style has decreased the effect of interpersonal conflict on physical stress symptoms, obliging style has increased the effect. These results have showed that Hypothesis 2a and 2b were partially supported.

5. Results and Discussion

The present research's findings have showed that psychological capital is a significant resource that help one to struggle life while decreasing the level of psychological stress symptoms that also supports the findings of Avey, Luthans, & Jensen (2009). Furthermore, in the study psychological capital buffered the effect of interpersonal conflict on physical stress symptoms. These results have suggested that psychological capital directly influences psychological stress symptoms and especially good for employees' health whether a specific stress factor exists or not. On the other hand, psychological capital's influence on physical symptoms can be observed in the presence of interpersonal conflict. With these results it would be important to suggest that organizational implementations to develop psychological capital will be useful for health besides developing leadership potential of each person. Depending on Snyder's (1995) views hope can be developed by helping employees determine meaningful work goals. Work goals can be also important to take one's mind off interpersonal conflict. For this purpose, managers can talk with employees to help them identify their goals. This is important because managers can appraise that whether these goals both reflect employees' competencies and also are appropriate with the organizations' vision, mission, and strategies and if they are not, might suggest ways to make them more consistent and integrated with each other. As difficulties might discourage employees from pursuing their goals, managers can also suggest ways to overcome the obstacles.

Bandura (1994) suggested four main ways that can be used to increase one's self-efficacy. Based on these views, it can be suggested that managers can encourage employees by making them try challenging but achievable work tasks and by persuading them that they can be successful, by appreciating them especially when they achieve positive results, by being role models and examples that they can also achieve similar results; and lastly, by providing conditions that support employees' physiological and psychological well-being. Optimism level of employees can also be increased by providing constructive feedback to them in appropriate times and making sure that they understand their role and contribution in the processes and results (Luthans, Youssef & Avolio, 2007). Resilient people can recover easily after the adversities they face. Personal and social competence, family coherence, social support and personal characteristics have been found to be important dimensions of resiliency (Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003). Increasing the perception of social support at work and providing trainings on work and personal issues would be important.

All in all, organizations can develop employees' psychological capital components in relation to dealing with interpersonal conflict. Thus, having managers with good interpersonal skills in handling conflict at work would be helpful since they serve as role models to increase self-efficacy of employees. A colleague who is good at solving interpersonal problems can also be a good role model and can be very influential to affect the others adapt similar type of behaviors. Therefore, selecting people who are good at interpersonal skills are extremely important for organizations. Additionally, employees can be shown that interpersonal conflict is a fact of life which is not avoidable and if it is handled efficiently, it is not negative. The realization of this might also prevent employees experience negative physiological arousal when faced with conflict. Hope levels of employees in relation to interpersonal conflict can also be increased by developing their resilience if interpersonal conflict is quite common and disturbing for employees. For instance, an employee might determine a goal about solving a conflict with a colleague. Small steps can be identified, and the employee can be helped about how she/he can cope with difficulties. Providing chance to find solutions equally satisfying to everybody in the organization can be an optimistic view of interpersonal conflict which can also be spread to organization. Conflict does not always deteriorate relationships between people but sometimes help them understand each other's viewpoint. Managers should help employees to see their roles in solving conflicts. Finally, as conflict requires individuals' resiliency, organizational sources should be provided to employees to enhance their personal and social resources to deal with conflict.

The present research has showed the important role of hope, compromising, and obliging in conflict-physical stress symptoms relationship (Figures) With the frequent use of hope, there is not much change in physical stress symptoms. However, infrequent use leads to an increase in physical stress symptoms in high conflict situations comparing to low conflict situations. This can be explained by the importance of hope that is willingly finding ways. A similar figure can be applicable also for compromising conflict management style in which both parties' endeavor to solve the situation by sacrifices. For obliging style, there is an increase for high conflict situations comparing to low conflict situations. However, the frequency and quantity of use does not show much difference, either high in high conflict or low in low conflict. Obliging style which characterizes only one party's sacrifice to manage the conflict worsen the symptoms of stress on the side of the party who sacrifices his/her needs and desires. However, there has not been found any moderating effects of psychological capital, its components or conflict management styles on interpersonal conflict at work and psychological stress symptoms

relationship. It is possible people might be much aware of physical stress symptoms. It is known that stress starts with a perception of threat or danger (Lazarus, 1984). With this perception the individual develops some physiological changes including increases in sympathetic nervous system activity (Greenberg, 1990). If the perception of stress extends for a longer period, changes in psychological (e.g., worry, depression) and physical states can also be observable (e.g., inability to sleep or suffering from headaches). Observance of physical effects in relation to a stressor might mean the stressor has become a significant part of one's life and affects him/her deeply. Employees having additional resources such as psychological capital or using compromising style or using lower level of obliging style gain more benefits in terms of their health. In future work, the roles of other moderator variables might be investigated. A limitation of the study is not to include control variables such as negative affectivity or neuroticism as these are the most frequently cited personality variables in relation to stress-strain relationship (Bolger & Zuckerman, 1995; Brief, Burke, George, Robinson, & Webster, 1988). For the sake of keeping questionnaire short these variables could not be included. In conclusion, this research contributed to the literature by providing evidence in relation to the moderating effects of psychological capital and conflict management styles. Instead of modern control and discipline (Foucault, 1995), results of the study can be used by industrial & organizational psychologists and human resources departments in relation to the counseling and trainings of postmodern phenomena by reducing stress, managing conflict, developing talent diversity, and psychological capital.

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TABLES AND FIGURES

Table 1: Pearson Correlation Coefficients Between Variables

Variables	Mean[a]	SS	1	2	3	4	5	6	7	8	9	10
Sex[a] (1)	-	-	-	-.05	-.09	-.14*	-.01	.01	-.03	.06	-.09	.07
Interpersonal Conflict (2)	1.77	.52	-	-	.32**	.34**	-.17*	-.28**	-.04	.08	.06	.09
Psychological. Stress Symptoms (3)	3.30	1.07	-	-	-	.44**	-.27**	-.15*	.01	.01	.00	.07
Physical Stress Symptoms (4)	2.42	.79	-	-	-	-	-.16*	-.19**	-.04	-.05	.05	.12
Psychological Capital (5)	3.39	.38	-	-	-	-	-	.42**	.17*	.10	-.03	-.13
Integrating Style (6)	3.89	0.61	-	-	-	-	-	-	.51**	.08	.11	-.22**
Compromising Style (7)	3.48	.57	-	-	-	-	-	-	-	.35**	.34**	.09
Dominating Style (8)	2.73	.65	-	-	-	-	-	-	-	-	.10	.06
Obliging Style (9)	2.95	.60	-	-	-	-	-	-	-	-	-	.48**
Avoiding Style (10)	2.82	.70	-	-	-	-	-	-	-	-	-	-

*Note. Mean scores are calculated by each participants' total score is divided by item number of each scale. Females are coded as 1and males are coded as 2. *p<0.05, **p<0.01*

Table 2: Hierarchical Regression Analyses Moderating Interaction Effect for PsyCap

	R^2	Beta
Psychological Stress Symptoms Dependent Variable Model Analysis		
Step 1 Independent Variable: Sex	.01***	-.09
Step 2 Independent Variable: Interpersonal Conflict	.11***	.28
Step 3 Independent Variable: Psychological Capital	.16***	-.22
Step 4 Moderating Variable Interaction Effect: Psychological Capital X Interpersonal Conflict	.17***	.00
Self -Efficacy X Interpersonal Conflict		-.03
Optimism X Interpersonal Conflict		-.12
Hope X Interpersonal Conflict		.00
Resilience X Interpersonal Conflict		.17
Physical Stress Symptoms Dependent Variable Model Analysis		

Step 1 Independent Variable: Sex	.02***	-.15
Step 2 Independent Variable: Interpersonal Conflict	.13***	.29
Step 3 Independent Variable: Psychological Capital	.14***	-.06
Step 4 Moderating Variable Interaction Effect: Psychological Capital X Interpersonal Conflict	.17***	-.17
Self -Efficacy X Interpersonal Conflict		-.04
Optimism X Interpersonal Conflict		-.01
Hope X Interpersonal Conflict		-.26*
Resilience X Interpersonal Conflict		.15

Table 3: Hierarchical Regression Analyses Moderating Interaction Effect for Conflict Management Styles

	R^2	Beta
Psychological Stress Symptoms Dependent Variable Model Analysis		
Step 1 Independent Variable: Sex	.00***	-.10
Step 2 Independent Variable: Interpersonal Conflict	.11***	.33
Step 3 Independent Variable: Conflict Management Styles	.13***	
Step 4 Moderating Variable Interaction Effect: Conflict Management Styles X Interpersonal Conflict	.14***	.01
Integrating X Interpersonal Conflict		.12
Compromising X Interpersonal Conflict		-.18
Dominating X Interpersonal Conflict		.04
Obliging X Interpersonal Conflict		.04
Avoiding X Interpersonal Conflict		-.02
Physical Stress Symptoms Dependent Variable Model Analysis		
Step 1 Independent Variable: Sex	.03***	-.16
Step 2 Independent Variable: Interpersonal Conflict	.14***	.26
Step 3 Independent Variable: Conflict Management Styles	.16***	
Step 4 Moderating Variable Interaction Effect: Conflict Management Styles X Interpersonal Conflict	.25***	-.01
Integrating X Interpersonal Conflict		-.09
Compromising X Interpersonal Conflict		-.26**
Dominating X Interpersonal Conflict		.09
Obliging X Interpersonal Conflict		.23*
Avoiding X Interpersonal Conflict		.02

*Note. All scale scores were converted into standard scores before analysis. The standardized ß coefficients in the table are the coefficients obtained in 4 steps. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.*

Figure 1: Moderating Effect of Hope on the Relationship Between Interpersonal Conflict at Work and Physical Stress Symptoms

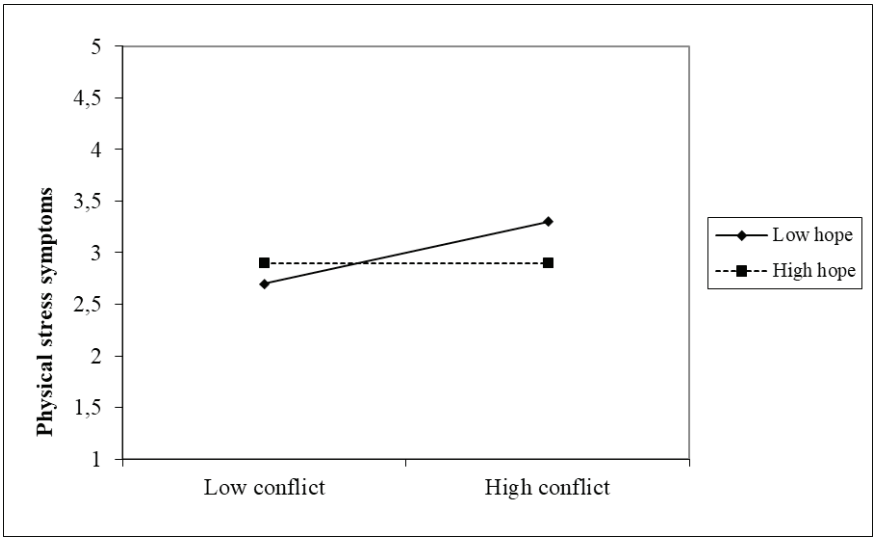


Figure 2: Moderating Effect of Compromising on the Relationship Between Interpersonal Conflict at Work and Physical Stress Symptoms

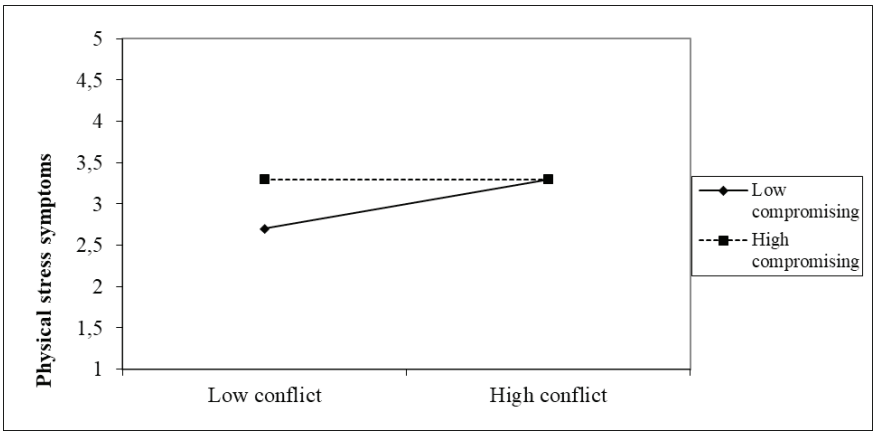
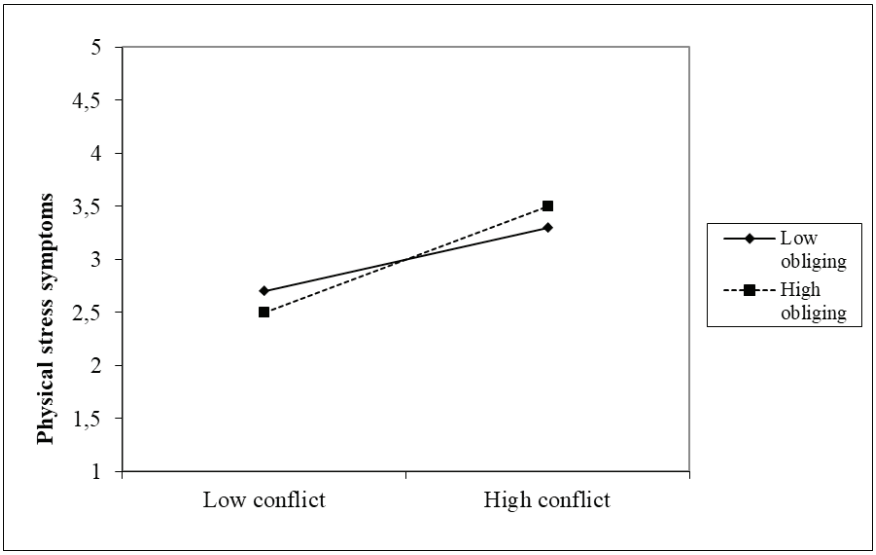


Figure 3: Moderating Effect of Obliging on the Relationship Between Interpersonal Conflict at Work and Physical Stress Symptoms



Note. Figures are illustrated by http://www.jeremydawson.co.uk/slopes.htm

Chapter 13

THE EFFECT OF COVID-19 PANDEMIC ON THE INCOME OF BORSA ISTANBUL TOURISM SECTOR

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INTRODUCTION

Each sector has its own characteristics. Sectors are generally divided into production and services. In the service sector, which includes the tourism sector, its labor-intensive characteristics and the fact that human relations are at the forefront cause the sector to be affected by negative situations and news faster and more than other sectors. The tourism sector is a very important sector for the economy, which provides foreign currency inflows to the country, increases the recognition of the country and the income is concentrated in certain periods of the year. Events such as political, economic crises and diseases affect the tourism industry rapidly and negatively. The Covid -19 outbreak has adversely affected all areas of life, especially economic and social life, and continues to affect it.

Covid-19 (Coronavirus) pandemic was first seen in a market in Wuhan City, Hubei Province of China in December 2019. This disease, detected with the symptoms of fever, shortness of breath and cough, is caused by a single stranded, positive-sense, enveloped RNA virus (T.R. Ministry of Health, 2020). This virus, which was referred as '2019-nCoV' in the beginning, has been being mentioned as Covid-19 as of February 11, 2020 by the World Health Organization (WHO). The virus first emerged in China has spread far and wide over Far East countries, Asia, Europe, America and Africa and has exercised influence around the world. Due to fast spread of the disease caused by the virus and its deadly results, pandemic was declared by the World Health Organization on March 11, 2020. The use of the word pandemic shows that a virus or a disease has turned into a global epidemic. The most important reason why this virus spreads so fast is that it transmitted by breathing and contact from person to person in a quite short while (WHO, 2020a). When the calendar showed the date of April 18 2020 2.261.631 cases were recorded in 185 countries in accordance with the data obtained and 154.789 of these cases resulted in death. In Turkey, case number was 78.546 and there were 1.769 deaths (Johns Hopkins University, 2020). According to the World Health Organization; as of May 12, 2020, it is seen that the number of Covid-19 cases worldwide has reached 4.880.848, and the number of deaths is 283.153. March 11, 2020 by the T. R. Ministry of Health as first seen on the Covid-19 cases during the period until the date of May 12, 2020 in Turkey; while the total number of cases was 141.475, the total number of people who died due to Covid-19 was reported as 3894. As can be seen, a rapid increase is seen to have occurred in May when compared to the figures April as given before. The important events related to the subject that draw attention during the period since the first detection of this virus until May 12, 2020 can be listed as follows (Who 2020b; EURONEWS, 2020);

- On December 31, 2019; The first cases of pneumonia in China were reported to the World Health Organization.

- On January 5, 2020; For the first time, the World Health Organization named this new disease epidemic.

- On January 10, 2020; Based on viruses such as SARS and MERS, the first guide on the new virus was published.

- On January 11, 2020; China shared the genetic findings about the virus with the public, and the first death from this disease occurred in China on this date.

- On January 13, 2020; New virus case was seen in Thailand for the first time in a country other than China.

- On January 21, 2020; USA announces first virus case.

- On January 23, 2020, The city of Wuhan was quarantined; Entries and exits to the city were closed.

- On January 31, 2020; The USA announced that it would impose a travel ban on people who traveled to China in the last 14 days.

- On February 02, 2020; The first virus-related death outside of China occurred in the Philippines.

- On February 04, 2020; Upon the positive disease test of ten people on the ship named The Diamond Princess, the ship was quarantined in Yokohama with its 3,700 passengers and crew.

- On February 09, 2020; The total number of deaths caused by the virus exceeded the total number of deaths caused by SARS.

- On February 11, 2020; Disease was named as Covid-19.

- On February 14, 2020; Egypt became the first country in the African continent to have the disease by announcing the first case in the country. Again on the same date, the first death outside Asia occurred in France.

- On February 17, 2020; World Health Organization warned the public not to get together in public.

- On February 26, 2020; The virus was seen for the first time in Latin America with the first case detected in Brazil.

- On February 29, 2020; The USA begun to impose flight bans.

- On March 7, 2020; It was declared that the disease was spread to a total of 100 countries.

- On March 10, 2020; The quarantine in Italy was extended to cover the whole country.

- On March 11, 2020; The first cases of Covid-19 was seen in Turkey, the World Health Organization has declared a pandemic and the US, the flight ban was expanded to include Europe.

- On March 14, 2020; There was a record increase in the number of cases in Spain and a quarantine decision was made in the country.

- On March 16, 2020; Germany and Canada closed their borders to neighboring countries. France, by further increasing the measures; declared a curfew for two weeks, except in compulsory situations.

- On March 17, 2020; The European Union implemented a 30-day travel restriction.

- On March 18, 2020; After Italy, France and Spain, Belgium was the fourth country to make a nationwide quarantine decision. Canada and the USA set travel restrictions on their joint borders.

- On March 24, 2020; Curfews were declared in India and Egypt, and a two-month state of emergency was declared in France. 2020 Tokyo Olympics announced to be postponed to summer 2021.

- On April 7, 2020; While a curfew was declared in Israel during Passover, Japan declared a state of emergency for a month due to the rapidly increasing number of cases.

- On May 08, 2020; The World Health Organization reported that between 83,000 and 190,000 people in Africa could die due to Covid-19 this year, and approximately 44 million people could be infected.

Covid-19, which has been continuing to be a serious health problem, not only has affected the health, but also negatively affected all sections of live and has been continuing to do so. Countries have started to take various precautions in order to prevent the spread of Covid-19 pandemic. These precautions are mostly shown up as constraints. Although the constraints introduced along with the pandemic seem to have affected social and education life primarily, they have negatively affected the economies on the national and international level as well.

Along with the pandemic, curfew has been declared, national and international travel bans have been imposed, educational institutions have been closed and many organizations such as academic conferences, concerts and exhibitions have been canceled. In addition, workplaces such as cafes, restaurants and cinemas, the places that could be crowded and cause close contact, have been closed. As the process advanced, this situation caused many workplaces to be closed and many people to

be unemployed. This extraordinary process has economically affected everyone and every single institution and organization. These conditions that countries, companies and individuals have confronted after a long time for the first time caused everyone to be caught unprepared. The sectors that have mostly been affected during this process are transportation, tourism and trade. As an obligatory result of the fast decrease in the demands in these sectors, decrease in supply has also happened (Aydoğuş, 2020). While the economic results of Covid-19 pandemic are generally named as "Coronanomics", some define this situation as "Black Swan" (Barua, 2020: 2).

The root of the word tourism is derived from the Latin word "tornus." This word expresses people's rotational motion around an axis. In time, this word is passed over to other languages and today, it states people's going to the places to be seen with business or travel purposes and their return to their homes (Ağaoğlu, 1991: 24). People who travel with the purpose of tourism are called tourists. Tourists' own experiences or the experiences of others that they are somehow aware of are very important in determining their travel attitude. In addition, negative situations that develop outside of experience also affect travel attitudes (Baxter and Diehl, 1998:349). Events such as economic crises, wars, natural disasters and political problems, especially epidemics affecting the whole world, cause societies to weaken or suffer in every aspect. From this situation, the service sectors such as production, agriculture, industry and banks, which operate in the economic field of the countries, suffer seriously (Hall, 2010: 402). In these service sectors, the tourism sector has a significant socio-economic impact on the spread of events, especially diseases, and the increase of their impact (World Economic Forum, 2019). Tourism activities within the service sector have also faced many epidemics and crises in history. As a result, some negativities have been experienced in this sector. Terror attacks, severe acute respiratory failure (SARS) epidemic, global economic recessions and similar crisis processes have resulted in short-term stagnation or a decrease in tourism revenues (Papatheodorou et.al. 2010:39). As time passed, the tourism sector was able to systematically compensate for its losses. This sector, which is getting stronger, has regained its former prestige and has become a global economic actor and has continued to develop. The way of dealing with these problems has made us to think that this sector has gained resistance against crises or problems that may arise. However, with the Covid-19 pandemic process, tourism activities have been seriously damaged, and it has become obvious that it has a fragile structure against such a devastating situation (Gössling et.al., 2020:4).

Along with the constraints introduced with the pandemic process, substantial decrease has happened in the number of both domestic and foreign tourists. Tourism sector has a dynamic structure that can give quick reaction to instant positive and negative situations. During the crises happening in tourism sector, the events threatening the usual activities of the companies operating in this field; giving the impression that the reliability geographical location, on which they are operating, is dangerous; decreasing the region's touristic attraction and comfort for the prospective people; and causing decrease in the touristic demand for the current location and thereby the expenses are the causing factors. Due to these events, tourism companies' failure in performing their activities or providing continuity leads to crisis in this sector (Sönmez, et al., 1994: 2). The perceptions of the tourism sector in the market are fragile in the face of sudden changes, and the reputation of even the most popular tourism destinations of human or natural events can change their desirability and marketability overnight (Beirman, 2003:3). These events and their effects have been observed during the pandemic process.

In the first days of the epidemic, some of the reservations and travels were canceled by people. Due to the rapid increase in the number of cases and deaths since March 2020, a pandemic has been declared. As a result, various restrictions have begun to be applied in countries. Travel restrictions, visa cancellations, border closures, restrictions on education and curfews have been declared (Meninno and Wolff, 2020:89).

In accordance with the tourism statistics declared by the Republic of Turkey Ministry of Culture and Tourism, while 40.719.786 people came to Turkey as foreign tourists in 2019, this number diminished 71,3% in 2020 and decreased to 11. 910. 338 people. The income acquired from tourism declined 69,4% in contrast with 2019 and happened as 8.145.561.000 billion dollars. While almost 4 Billion Dollars, in other words half of this income was acquired during January-February-March 2020 period, remaining half was acquired during July-August-September 2020 period. The biggest reason why there is a gap between these periods is that it corresponds to the time interval when national and international bans were intensely enforced because of the pandemic. There is about 55% decrease in the number of people coming for accommodating at a hotel in 2020 when compared to 2019. Decline in the revenue caused decrease in the number of employment in this sector. As a matter of fact, some facilities couldn't provide service in certain times of the year.

BACKGROUND

The tourism sector is a much more sensitive sector in terms of its reactions to events compared to other sectors. Political and economic

crises and epidemics cause people to first reconsider their travel and vacation decisions. Among these reasons, even the possibility of illness in the region that is considered to be visited is the most important reason for the decrease in the number of tourists coming to the region (Lee & Chen, 2011:1421). Covid-19 is the fastest spreading virus in the world and the widest area of influence in the world. For this reason, it is the event that affects the tourism sector the most negatively. In the literature, there are various studies on the events that negatively affect the tourism sector. Table 1 includes a literature review.

Table 1. *Literature Review*

Scholar(s)	**Tourism Sector and Covid-19**
Richter (2003)	In his study, he emphasized that during a global epidemic, large-scale international travel can spread infectious diseases and bring health threats to crowded urban areas.
Pine & McKercher (2004)	In China in November 2002 They investigated the effects of the emerging Sars virus on the Hong Kong tourism industry and concluded that the virus seriously affected both accommodation and airline companies, but when the disease was brought under control, the tourism industry started to recover rapidly.
McKercher & Chon (2004)	They investigated the impact of Sars disease on Asian tourism and found that a significant number of people were unemployed in the most heavily affected regions of China, Hong Kong, Singapore and Vietnam, and that the epidemic caused a total of more than $ 20 billion in damage in these countries.
Irvine & Anderson (2006)	The effects of Foot and Mouth Disease on tourism have been investigated regionally. There has been a decline in business volume, profitability and number of personnel in the region. However, these negative effects occurred less than expected.
Kuo et. al. (2008)	This paper is to investigate the impacts of infectious diseases including Avian Flu and severe acute respiratory syndrome (hereafter SARS) on international tourist arrivals in Asian countries using both single datasets and panel data procedures.
McAleer et.al. (2010)	In their studies, it is stated that the SARS and avian flu epidemic damaged the image of Asia as a safe tourist destination and caused the tourism sector to collapse in China, Hong Kong, Singapore and Vietnam, the Asian countries most affected by the epidemic.
Bahar & Balmumcu (2010)	In 2008 the global financial crisis on Turkey and on the world tourism industry and its effects are studied and international found that the number of people engaged in tourism activities was seriously affected.
Bajardi et. al. (2011)	In particular, they say, the influx of infected people to a tourist area during a pandemic can have serious consequences for public safety.
Lee & Chen (2011)	They investigated the impact of the 2004-2006 bird flu epidemic on elderly tourists in Asia and revealed that due to the low mortality rate in the epidemic, elderly tourists visiting Asia were not affected by this epidemic and did not give up their planned visits.
Page et. al. (2011)	Research on the global crisis and swine flu inbound tourism in the UK concluded that this sector was significantly adversely affected.

Rassy & Smith (2013)	In this study, the effect of Sars disease on Mexican tourism was examined and it was stated that Mexico's overseas tourist loss during this disease period was approximately 1 billion and caused damage of 2.8 billion dollars.
Cahyanto et. al. (2016)	In their study, in late 2014, they investigated the factors affecting the avoidance of domestic travel by Americans due to confirmed cases of Ebola in the United States through an online survey and confirmed that perceived risk, subjective information, age, and gender have a significant effect on internal travel avoidance.
Novelli et. al.(2018)	In this study, they analyzed the impact of the Ebola Virus Disease Outbreak in The Gambia. Consequently, they argue that a crisis affects investment, especially of capital, and may cause more economic problems for developing tourism.
Haque & Haque (2018)	In their study, they examined the effects of swine flu on tourism in Brunei and found that around 30,000 (15%) tourists and $ 15 million were lost due to swine flu.
Brodbeck (2019)	The covid-19 outbreak should be evaluated according to the ontological and epistemological background and hypothesis the that strengthen the current science and development example.
Yozcu & Çetin (2019)	They state that in order to strengthen the positive image in their work, special campaigns can be developed by governments, organizations and institutions and the effectiveness of these activities should be monitored in the long term. They also state that, based on the results of the crisis, course papers should be created to develop skills and competencies for future risk management.
Usher et.al. (2020)	They state that with removal of buffering in Australia in June due to Covid, domestic tourism boomed.
Morgan et.al. (2020)	They states that the Covid-19 pandemic period caused significant damage to the Australian tourism industry, worth $ 100 billion.
Kamruzzaman, M. (2020)	He states that the reservations in the Asian country were canceled due to the Corona Virus and that the large hotel chains and the world tourism industry were shaken.
Guha & Gandhi (2020)	In their research, they examined the subject of Covid-19 tourism sector in India. They state that there is a decrease in tourism revenues compared to 2020 and the government has to enact the necessary laws to correct this situation.
Ayittey et. al. (2020)	In the study, the effects of Covid-19 on China and the world economy were investigated, and it was estimated that the virus would suffer a loss of approximately 62 billion dollars and the world economy in excess of 280 billion dollars in the first quarter of the year.
Gardner et.al. (2020)	He states that COVID-19 has a high risk of spreading other respiratory diseases, such as seasonal flu, through travel in the community.
Ozili &Aron (2020)	They investigated the impact of the Covid-19 outbreak on the North American, African, Asian and European stock markets between March 23, 2020 and April 23, 2020. They concluded that the increasing restrictions affect the opening, closing, high and low values of stocks and indices.
Schmöcker (2021)	In his study on Covid-19 and tourism, he says that the city tourism flows were challenged and the need for anticipated study with new data showed urgency with data on Covid-19.

Usher et. al.	They state that border closures and Covid restrictions leave tourism and accommodation businesses, which normally have a busy summer season, in a very difficult situation.
Riminton et. al. (2021)	They state that the tourism authorities reach an agreement in the speeches about Covid and these decisions cost the economy of the country.

A comprehensive literature study on the subject shows that epidemic diseases scare tourists and therefore tourism revenues in the relevant regions have dropped considerably during the specified periods. Since the tourism sector is more sensitive to developing negative situations and is affected more quickly, the measures to be taken and the strategies to be developed in this sector are of great importance in ensuring the continuity of tourism-related companies. It has a very important role in reducing the impact of the epidemic in decisions and practices to be taken quickly in countries during epidemic periods. The important thing is to take the necessary lessons after the troubled times, to formulate and implement effective strategies for the future. In addition, effective monitoring of these practices and the enactment of relevant laws will ensure that later periods such as the Covid-19 pandemic period will be overcome with less loss. Analyzes and studies to be made will help reveal the extent and effect of the damage. It will also be a guide about the measures that can be taken. For this reason, in this study, the effect of the Covid-19 pandemic period on the tourism industry has been analyzed using the data of companies traded on Borsa Istanbul.

Methodology and Application

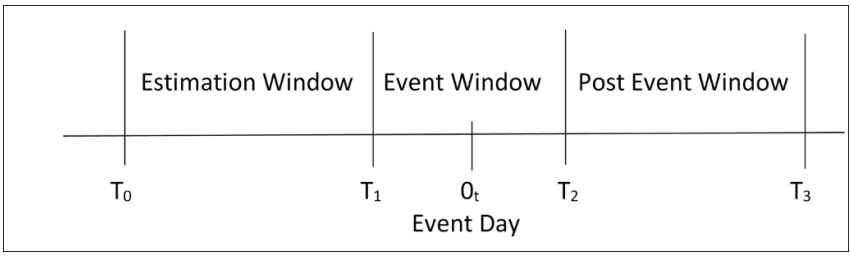
The Covid-19 pandemic period is a very important event that has a high negative impact in all areas of life in recent years. For this reason, in the analysis of the data, the event study method was used in the study. This method has become the standard method of measuring the security price response to some announcement or events occurring in a specific time period. Event study method allows to easily measure the effect of an event on stock value by using financial market data. The case analysis method, which has a long history, was first used by Dolley in 1933 to examine the effects of stock splits on stocks (MacKinlay, 1997: 14).

Event study tries to measure whether the related event has caused any abnormal return or not. The difference between the expected return of a security and its actual return refers to the abnormal return. In the institutional context, the magnitude of the abnormal performance at the time of an incident enables the measurement of the (unexpected) effect of such events on the wealth holders of the firms increases the usefulness

of incident analysis studies. Therefore, incident analysis studies focusing on announcement effects for a short period of time around an incident provide evidence for understanding corporate policy decisions. Due to this feature, event analysis method is widely used in finance and accounting research (Kothari & Warner, 2006). One of the important functions of the event analysis method is to measure how quickly stock prices react to the event or the statements made by the company (Sakarya et al., 2017, p.65).

Event study method consists of three main time frames. These are prediction window, event window and post-event window time zones. The forecast window refers to the period that can be considered normal during which the event does not occur. In this method, the time to be used before and after the event is determined by the person who will do the study according to the characteristics of the conditions. The time periods of the method are shown in Figure 1.

Figure 1. *Timeline for an Event Study*



The forecast window refers to the period before the event window, which is the second part. The event window refers to the period in which the event occurred and the post-event window refers to the post-event period. The day of the event is expressed as 0_t in the figure.

In the event study method, the analysis consists of five stages (Brown and Warner, 1995: 6):

1- Calculation of daily returns of the examined index and stock. In this study, the rate of change in index prices is calculated using the logarithmic return calculation method. While calculating, stocks included in BIST 100 Index as index and Participation-30 Index as stocks were used as data. The formula used in the calculation is given below.

$R_{it} = \ln (P_{it} / P_{it}-1)$

R_{it} = Logarithmic return of the stock (BIST 100 index) in period t,

P_{it} = Stock value in period t,

P_{it}-1 = the value of the stock in the period t-1.

2- The expected returns in the study are calculated using the Capital Asset Pricing Model (CAPM). CAPM was created by Sharpe (1964) and Lintner (1965) on the basis of Markowitz's modern portfolio theory. This model tries to reveal the relationship between the risk of an asset and its expected return. Also, according to the model, there is a linear link between market returns and stocks. In this model, where the regression model is calculated separately for each company, the following formula is used in the estimation of α and;

$E_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_t$

E_{it} = the logarithmic return of the stock in period t,

α_i = The average return of the stock "i" that cannot be explained by the market,

β_i = "i" stock's sensitivity to market movements,

R_{mt} = t of the BIST 100 Index.

ε_t = It is an error term.

3- After the expected returns are found, the third stage, which is the calculation of abnormal returns (AR), is started. Abnormal returns are found by subtracting the actual returns from the expected returns. The formula is as follows;

$AR_{it} = R_{it} - E(r)_{it}$

AR_{it} = Abnormal return of stock "i" in period t,

R_{it} = the actual return of the stock "i" in period t,

$E(r)_{it}$ = "i" is the expected return of the stock in period t.

4- After the third stage, the average abnormal return (AAR) is calculated as an index for all company shares at this stage. The formula is as follows;

$AAR_t = \sum_{t=1}^{n} \left(\frac{1}{n}\right) AR_{it}$

AAR_t = Average abnormal returns on day t,

n = the number of stocks examined.

5- In the fifth and last stage, the Cumulative Average Abnormal Return (CAAR) is calculated for each day in the event window. The formula is as follows;

$CAAR_t = \sum_{t=1}^{n} AARt$

$CAAR_t$= the average cumulative abnormal return over the period t.

In this study, the effect of the covid-19 pandemic period on the hotel and restaurant sector in the BIST 100 index sectors was examined. Of the 11 companies traded in this sector, the data set of the Study constitutes the prices of 8 companies that are eligible for the study subject. Data from these companies were analyzed using the event study method. The data used in the study were obtained from Investing.com Company, which provides data acquisition service. The stocks of the companies examined constitute the closing price data set. The companies in the tourism sector examined in the study are listed in Table 2.

Table 2. *Investigated Companies in the BIST Tourism Sector*

Companies	Code
Altınyunus Çeşme Turistik Tesisler A.Ş.	ayces
Avrasya Petrol Ve Turistik Tesisler Yatırımlar A.Ş.	avtur
Marmaris Altınyunus A.Ş.	maalt
Martı Otel İşletmeleri A.Ş.	martı
Petrokent Turizm A.Ş.	pkent
Tek-Art Turizm Zigana A.Ş.	tektu
Ulaşlar Turizm Yatırımları ve Dayanıklı Tüketim Malları Ticaret Pazarlama A.Ş.	ulas
Utopya Turizm İnşaat İşletmecilik Ticaret A.Ş.	utpya

Source: KAP, 2020

The first case was detected in Turkey on March 11, 2020. For this reason, the date of the event window was taken as '-20, +20' on the basis of March 11, 2020, and the calculation period as '-20, -270'.Table 3 shows the cumulative average abnormal returns of the Tourism Sector calculated for different time periods.

Table 3. *The Cumulative Average Abnormal Returns of the BIST Tourism Sector*

	CAAR				
Code	[-15,15]	[-10,10]	[-5,5]	[0,5]	[0,10]
ayces	-23,61%	-43.90%**	-77.48%***	-48.93%***	-15.19%
avtur	-59.50%***	-50.39%***	-50.52%***	-42.59%***	-42.03%***
Maalt	-39.36%*	-54.82%***	-24.93%**	-19.18%**	-40.51%***
Martı	-55.16%***	-54.27%***	-43.79%***	-35.25%***	-40.35%***
Pkent	-66.43%***	-62.37%***	-62.34%***	-40.84%***	-36.75%***
Tektu	-43.87%***	-61.37%***	-50.44%***	-36.34%***	-40.33%***
Ulaş	-34.96%**	-55.95%***	-46.67%***	-39.88%***	-40.75%***

Utpya	-40.29%*	-60.07%***	-39.19%***	-30.94%***	-37.57%***
Average	**-45.40%*** **	**-55.39%*** **	**-49.42%*** **	**-36.74%*** **	**-36.68%*** **
Note: * indicates statistical significance at the level of 10%, ** at the level of 5%, and *** at the level of 1%.					

According to the results in Table 3, the cumulative abnormal returns of all content sharing securities in windows [-15,15], [-10,10], [-5, -5], [0.5] [0,10], that is, in all windows examined, the mean (CAAR) is negative. Looking at the results of the analysis in general, Altınyunus Çeşme Turistik Tesisler Company has the highest negative cumulative abnormal return in the analyzed windows with a value of -77.48% in the third window. The least negative cumulative abnormal return belongs to Altınyunus Çeşme Turistik Tesisler Company with a value of -15.19% in the fifth window. In addition, the average of the cumulative abnormal returns of stocks in all event windows except two event windows is significantly statistically significant.

Looking at the industry average of these companies, in the first window, five companies have less negative cumulative abnormal return values, while three companies have more negative values. In this window, Petrokent Tourism Company with a value of -66.43% draws attention with the highest negative value and Altınyunus Çeşme Turistik Tesisler Company with a value of -23.61% with the lowest negative value. This shows that these companies are the most and least negatively affected companies in this event window.

In the second event window, four companies have less negative cumulative abnormal returns than the industry average, while the remaining three companies have more negative values. In this window, Petrokent Tourism Company with a value of -62.37% has the highest negative value as in the first window, and is again the company with the highest negative impact. It belongs to Altınyunus Çeşme Turistik Tesisler Company with the lowest negative value of -43.9% and as in the first window, it is the company least affected negatively. As can be seen, the companies that were affected the most and least negatively in the first and second windows remained unchanged, except for their percentage values.

When the third event window is evaluated within itself, according to the negative cumulative abnormal return, it is seen that half of the companies have more negative cumulative abnormal return value than the industry average, while the other half has less negative cumulative abnormal return value. In this window with a value of -77.48%, the company most negatively affected was Altınyunus Cesme tourist facilities

Joint Stock Company, unlike the other two windows. The least negatively affected company is the Marmaris Altınyunus Company with a value of -24.93%. The order and companies in the first two windows changed in this window.

In the fourth event window, similar results were obtained in terms of both the sector average and the companies with the third window. In the fourth event window, similar results were obtained in terms of both the sector average and the companies with the third window. According to the industry average, half of the firms have more negative cumulative abnormal return value, while the other half have less negative cumulative abnormal return value. The companies most negatively affected and least affected also remained unchanged compared to the third window. While Altınyunus Çeşme Turistik Tesisler Company with a value of -48.93% has the highest negative value, Marmaris Altınyunus Company has the lowest negative value with a value of -19.18%.

In the fifth and last event window, the negative cumulative abnormal return value of all companies except one company has a value higher than the industry average. In this event window, Altınyunus Çeşme Turistik Tesisler Company, which had the highest negative cumulative abnormal return value in the previous window, was the least negatively affected company in this window with -15.19% negative cumulative abnormal return value. So, for this company, the situation has turned around in this window. In this window, Avrasya Petrol ve Turistik Tesisler Yatırımlar Company was the most negatively affected company with a negative cumulative abnormal return value of - 42.03%.

When the event windows are evaluated on a company basis, the negative cumulative abnormal return value of Altınyunus Çeşme Turistik Tesisler Company that starting in the first window increased to the third event window. After the fourth window, the negative cumulative abnormal return value started to decrease. The highest negative cumulative abnormal return value for this company was -77.48% in the third event window. The lowest negative cumulative abnormal return value is in the fifth window, which is the last window with -15.19%. There was a negative increase in the cumulative abnormal return value in this company until the day of the event, and this situation reversed after the event occurred.

The highest negative cumulative abnormal return value at Avrasya Petrol ve Turistik Tesisler Yatırımlar Company started to improve from the first window. The highest negative cumulative abnormal return value for this company was -59.5% in the first event window and the lowest negative cumulative abnormal return value was in the fifth event window

with -42.03%. There was no significant increase or decrease in negative cumulative abnormal returns in the analyzed windows.

When Marmaris Altınyunus Company's event windows are analyzed on the basis of negative cumulative abnormal return, it is seen that it follows a fluctuating course. The negative cumulative abnormal return value that increases in the second event window compared to the first window has a negative value even less than the first value in the third window. The decrease in the negative value continued in the fourth event window. Negative cumulative abnormal return increased in the last window, the fifth event window. In this company, the highest negative cumulative abnormal return was in the second event window with -54.82%, while the lowest negative cumulative abnormal return was in the fourth event window with -19.18%.

Martı Otel İşletmeleri Company shows a similar situation to Avrasya Petrol ve Turistik Tesisler Yatırımlar Company, except for the last incident window. There is a decrease in negative cumulative abnormal returns from the first year to the last window. In the last event window, there was an increase in negative cumulative abnormal returns compared to the fourth event window. For this company, the highest negative cumulative abnormal return was in the first window with -55.16%, while the lowest negative cumulative abnormal return was in the fourth event window with -35.25%.

At Petrokent Turizm Company, negative cumulative abnormal returns in the event windows decreased from the first window, similar to Avrasya Petrol ve Turistik Tesisler Yatırımlar Company. The highest negative cumulative abnormal return for this company was in the first window with -66.43%, while the lowest negative cumulative abnormal return was in the fifth event window with -36.75%.

When Tek-Art Turizm Zigana Company is analyzed on the basis of negative cumulative abnormal returns, it is seen that the returns vary for each event window. While an increase occurred in the second and fifth event windows compared to the previous event window in negative cumulative abnormal returns, a decrease occurred in the third and fourth windows. For this company, the highest negative cumulative abnormal return value was in the second window with -61.37%, while the lowest negative cumulative abnormal return value was in the fourth event window with -36.34%.

In Ulaşlar Turizm Yatırımları ve Dayanıklı Tüketim Malları Company, there is a similar situation to Tek-Art Turizm Zigana Company. While the negative cumulative abnormal return value increased in the second and fifth event windows, this value decreased in the third and

fourth event windows. For this company, the highest negative cumulative abnormal return value was in the second window with -55.95%, while the lowest negative cumulative abnormal return value was in the fourth event window with -39.88%.

In Utopya Turizm İnşaat İşletmecilik Ticaret, which is the last company to be examined, negative cumulative abnormal return values in the analyzed event windows are similar to Ulaşlar Turizm Yatırımları ve Dayanıklı Tüketim Malları Company and Tek-Art Turizm Zigana Company. Negative cumulative abnormal return values increased in the second and fifth event window compared to the previous window. In the third and fourth event windows, there is a decrease in this value compared to the previous window. For this company, the highest negative cumulative abnormal return value was in the second window with -60.07%, while the lowest negative cumulative abnormal return value was in the fourth event window with -30.94%.

CONCLUSION

The tourism sector is included in the service sector. For this reason, it is affected more rapidly and more by negative situations and events compared to other sectors. Therefore, in such cases, it is of great importance to develop new strategies and take measures quickly in preventing or reducing losses. The tourism sector has a very important role for the economy of the country, especially as it provides foreign currency income, among other functions.

Diseases that seriously threaten human health are among the most negative factors affecting the tourism sector. Covid-19 appeared in China in December 2019. It took a very short time for the disease to spread and affect the world. With the illness, the number and rate of deaths increased in a short time. Thereupon, a pandemic was declared by the World Health Organization as soon as three months after the emergence of the disease. With the pandemic declaration, many bans and restrictions have been imposed in countries. This disease has caused the social life, economic life and education life to be negatively affected. Some of the people started to work from home, schools had to continue their education online, the activities of many businesses that provide services due to social distance came to a halt, and travel bans, perhaps the most important ban for the tourism sector, were imposed. The financial markets of the countries were also badly affected by this situation and the stock markets lost value. The pandemic period has coincided with the period when the demand for tourism sectors started to increase in countries like Turkey. This caused a decrease in the expectations of the stocks of these companies and a loss of value in the stock exchanges.

Event study method was used in the study. This method is used to measure the change in the returns of stocks at certain dates and events. In this method, there are three event windows: estimation, event and post event. After adjusting the time of these event windows according to the event date, the five-step analysis part is started. At the last stage of the analysis, the cumulative abnormal return averages (CAAR) of stocks are calculated. If the CAAR values are positive, stock returns are positively negative, indicating that the returns are negatively affected. Whether the results are statistically significant or not is also important when interpreting the data obtained from the analysis.

In this study, eight companies in the tourism sector traded on Borsa Istanbul are included in the analysis. The data set of the analysis consists of the closing prices of the stocks of these companies on the relevant dates. There are five event windows in the study. As a result of the analysis, it was seen that the cumulative abnormal return values of the companies examined were negatively affected by the Covid-19 pandemic period in all event windows. In addition, almost all of the results are statistically significant. When the event windows are examined in general, it is seen that the cumulative abnormal return value of the sector is negative in all windows. When the results are analyzed on the basis of event windows, it is seen that the highest negative cumulative abnormal return values are in the second event window. The lowest negative cumulative abnormal return values are in the fourth event window. Among the companies examined, Altınyunus Çeşme Tourist Facilities Company stands out as the company with the highest negative cumulative abnormal return value with -77.48% and the lowest negative cumulative abnormal return value with -15.19%. When the event windows are analyzed on a company basis, it is seen that most of them give different reactions. It can be said that the Covid-19 pandemic period, which was recently examined on the results, negatively affected the cumulative abnormal return values of the entire sector by an average of - 40%.

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Chapter 14

DOES RISK MANAGEMENT PAY OFF? IMPROVING PORTFOLIO RETURNS IN BORSA ISTANBUL VIA TAIL HEDGING USING OPTIONS

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1. Introduction

A diversified portfolio is thought to be immune to risks with no need further hedging or risk management efforts. However, the diversified portfolios, such as ones mimicking a wide index, are also prone to sharp drops in price levels at times of financial turbulence. Even the long-term investors suffer from occasional dips in market returns, which take a long time to recover. Akgiray (2019) documents that the total number of crises was 31 for the four centuries spanning 1600 to 1980, whereas the world witnessed 35 crises in the last four decades. Given the propensity of financial markets to plunge in deep crises more frequently in recent years, the investors should be willing to pay to have even costly insurance for protection.

Market crashes that cause deep losses and reshape the investment industry draw particular attention to the need for risk management. However, it is usually too late and too chaotic to be thinking about risk management at the time of turmoil. An astute fund manager should strategically plan for risk management in stable times to be protected in times of turbulence. Although relatively rare, those tail events shape the returns of funds and careers of professional investment managers.

In statistics "tails" are defined as the extremes of a distribution (i.e., those outcomes that have a small probability of occurring). In finance the term tail events typically refer to infrequent, outsized downside market moves such as those observed during the 2008 financial crisis. There is no broadly accepted definition of what constitutes a tail event, but consensus holds that we see moves larger than those expected by financial models, approximately every 3–5 years on average (Strub, 2016).

Tail hedging is a portfolio management strategy that tries to create a buffer for those unpredicted tail events. The related literature identifies four categories of tail risk management strategies: options-based hedging, asset allocation, dynamic trading and defensive equity (Flint et. al, 2021). The options-based strategies consist of buying put options and possibly selling calls in order to generate profits during a fall in asset prices. The asset allocation strategies consist in dynamically allocating a portion of a portfolio to cash, with the objective of reducing the exposure to equity markets in down markets and increasing it during up markets (Strub, 2016).

We specifically focus on an options-based strategy and try to answer the questions on how to optimally use that strategy in practice. We propose and test if portfolio insurance help investors avoid losses in large magnitudes, even generate better returns for a hypothetical index fund following the headline stock index at Borsa Istanbul, BIST 30.

Options are defined as the securities that grant its owner the right, but not the obligation, to trade another financial security at a future time an agreed-upon amount. European put options, specifically, grant the right to sell an asset for a previously determined price at a set future date. As such, put options protect its buyer from price drops below the predetermined price that is called strike price. The financial industry considers put options as insurance policies against losses, which makes them the most suitable hedging tools available.

In this study, we employ a version of option-based hedging used in Bhansali & Davis (2010a, 2010b) and Flint et. al (2021). We hedge the returns of a hypothetical BIST 30 index fund by using European put options for various horizons priced via Black-Scholes-Merton Option Pricing Model. We document if the returns improve with hedging or suffer due to excessive costs of options. We further optimize the level of protection via selecting an optimum strike price for different levels of risk tolerance. Given various investment horizons, our hypothetical portfolios, one of which adjusts itself weekly and the other one monthly, outperformed the BIST 30 index fund using 95% and 90% strike prices as well as optimum choice of strikes with respect to BIST 30 index. Given the results for hypothetical portfolios in 1, 5, 10, 15, and 20-year periods, we conclude that using put options to tail-hedge BIST 30 index fund results greater than or equal to the index fund.

2. Data

We follow a hypothetical fund benchmarked to headline Borsa Istanbul index BIST 30. We retrieved daily BIST 30 return index levels from Refinitiv Datastream (formerly Thomson Reuters). We specifically chose to use return index due to unreliable dividend yield data and to simplify our option pricing computations with no complication due to dividend yield levels. We simply can treat the underlying index paying no dividends, since the dividends are already incorporated into return index. The daily index levels data covers the period of 1998 to 2021. Moreover, we used the policy interest rates of the Central Bank of Republic of Turkey, which date back to 2002 retrieved from Central Bank's own data distribution website[1]. Alternatively, we also use interbank interest rates data from Refinitiv, which dates back to 1998. In order to set the volatility to market conditions, we also retrieve the 95% moneyness and at-the-money implied volatility series for BIST 30 options from Refinitiv. However, implied volatility data only dates back to 2016 and it is very unreliable for its early periods. Hence, we go back to use historical volatility for option

1 Central Bank of the Republic of Turkey Electronic Data Delivery System https://evds2.tcmb.gov.tr/index.php?/evds/serieMarket

pricing for much of the data range, albeit with a premium to consider the fact that implied volatility levels might be above historical volatility.

3. Methodology

We employ a defensive hedging strategy, in that keeping a portfolio insurance in place at a suitable level of protection at all times to reduce the tail risk of the entire portfolio. This strategy requires decision across five dimensions per Flint et. al (2021): basis, horizon, exposure, protection level and cost. Since we hypothetically assume an index fund mimicking the BIST 30 index, underlying asset matches the hedging instrument exactly with no basis risk. The exposure for the portfolio would be the volatility of BIST 30 index, which is the risk to be hedged.

The hedging horizon in our study ranges from one week to month. Admittedly these ranges are short term. However, the actual financial instruments trading in Borsa Istanbul are usually only liquid for the front month contracts, making our assumption closer to what one can achieve in practice. Furthermore, Turkish investors are known to be very short-term oriented, hence a short-term hedge would be more suitable for the clientele base. We review our hedging portfolio on Fridays by purchasing new options if necessary.

Protection level is one of the most important factors to be decided. This corresponds to the strike price level for put options. We begin our tests by setting the strike price levels 5% and 10% lower than the index level, meaning the fund manager can tolerate 5-10% losses each week or month, but the portfolio must be protected against any extreme losses exceeding those levels. We further optimize the protection level for each hedging strategy to maximize returns while minimizing risks in our back tests.

When it comes to financial markets, risk management is never free. It is particularly costly to tail hedge with options, especially in a market as volatile as Turkey. The cost associated with risk management relates to buying and managing the required set of instruments. For put options, the cost is explicitly stated as the premium paid for them. Since the BIST 30 option market is relatively new and illiquid, we value the hypothetical options that one can purchase over the counter by following the methodology outlined below.

We follow the valuation framework developed by Black and Scholes (1973) and Merton (1973), and general technical assumptions that have become the standard in the literature. The economy we consider is a dynamically complete financial market described by an underlying probability space within a finite time horizon [0,T]. Under some fairly

general technical conditions and no arbitrage, this complete financial market is assumed to have a unique risk neutral measure Q, which allows one to price all derivative instruments as an expectation of their discounted cash flows. Augmented filtration $\{F_t:t[0,T]\}$ represents the information set generated by the appropriate probability process. The state variables X_t, which may include prices of tradable securities, interest rates, dividends, drifts and volatilities or any function of such variables, are assumed to be measurable processes, adapted to the filtration $\{\mathscr{F}_t\}$ and uniformly bounded in $[0,T]\times\Omega$, for every finite $T>0$.

We also assume general market conditions that there are no transaction costs and borrowing and lending are possible at the same risk-free rate. This risk-free rate is determined by a standard risk-free asset, overnight rates set by the central bank or interbank market in our setting. We use a constant interest rate r and the resulting discount factor $\delta_t=e^{-rt}$ throughout this study, which is the standard treatment in option pricing practice.

We consider a non-dividend paying stock, which has a price process following the standard Geometric Brownian Motion

$$dS_t=S_0(\mu dt+\sigma dW_t)$$

where μ is the constant drift, σ constant volatility of the stock prices and W_t Brownian motion. *Risk-neutral dynamics* of the stock price would then be

$$dS_t=S_0(rdt+\sigma dW_t)$$

A European type option that has expiration date of T, strike price K and a payoff function of $g_T=g(X_T)$ could be priced at time t by the expectation

$$P_t^E=e^{-r(T-t)}\,E^Q\,[g_T\,|F_t]$$

where superscript Q denotes expectation with respect to risk-neutral measure and condition F_t indicates that expectation is adapted to the augmented filtration $\{F_t:t\in[0,T]\}$. We drop the superscript Q in the rest of the study, as all pricing equations use the risk-neutral measure. Also with slight abuse of notation, we denote the conditional expectation with simply the subscript t and write the pricing equation as follows.

$$P_t^E=e^{-r(T-t)}\,E_t\,[g_T]$$

The above setting leads to celebrated option pricing formula for European type options in a market that has a constant interest rate r and a stock following Geometric Brownian Motion (GBM) with constant drift μ, volatility σ and no dividends. Given the stock price S_0 at time $t_0=0$, according to the well-known Black-Scholes formula, the price of a European put option with strike price K and maturing at time T would be

$$P_0^E = Ke^{-r(T)}\Phi\left(\sigma\sqrt{T} - d\right) - S_0\Phi(-d)$$

where

$$d = \frac{ln(S_0/K) + (r + \sigma^2/2)T}{\sigma\sqrt{T}}$$

and $\Phi(.)$ is the standard normal cumulative distribution function.

The calculated put option prices are deducted from portfolio value at each date. If the option is exercised at maturity, the returns are added to the existing portfolio to compensate against losses. These hedging operations are done every Friday for weekly hedging and last Friday of each month for monthly hedging. The adjusted portfolio levels are converted to returns by dividing them with previous Friday's closing price level. Ultimately, we tested this method for various volatility levels, interest rates, and fees whether included or not included. The purpose of this study is to create an insured portfolio by combining BIST 30 index fund and a European put option, then to compare the yielded results with the ex-post returns of the index, eventually settling the question if portfolio insurance is beneficial under various strategies and market conditions.

4. Results

The base case for hedging strategies employed here use European put options with strike prices set to 5% and 10% below index level at each date, practically ensuring that the portfolio will not lose more than 5% or 10% plus the premium paid for put options. We implicitly assume the desired put options can be purchased from a qualified dealer at a price dictated by Black-Scholes formulation. The most important input for the pricing, the level of volatility, is set to our own estimates based on trailing 1 year's (or 252 trading days) standard deviation. The interest rate is set to Central Bank's policy rate. We test for various holding periods ranging from past year (March 2020 to March 2021) all the way to 20 years. We further refine the results by testing the robustness of the results to the inputs.

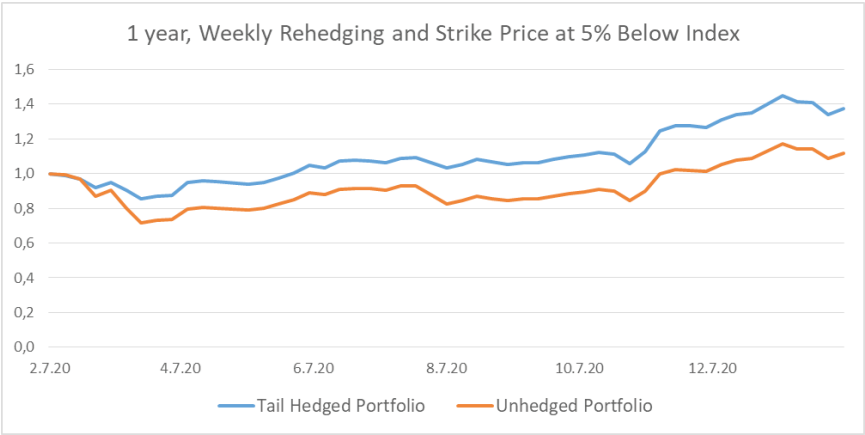
Figure 1 displays the cumulative return comparison for hedged and unhedged BIST 30 portfolios for 1 year and 5 year holding periods. The sample strategies visualized in these figures are based on weekly rehedging and strike levels set 5% below prevailing index levels, hence ensuring a maximum loss of 5% plus the premium costs. The visual inspection of the results shows us that hedged portfolios outperform the unhedged portfolios by a significant margin in each case. A close inspection also

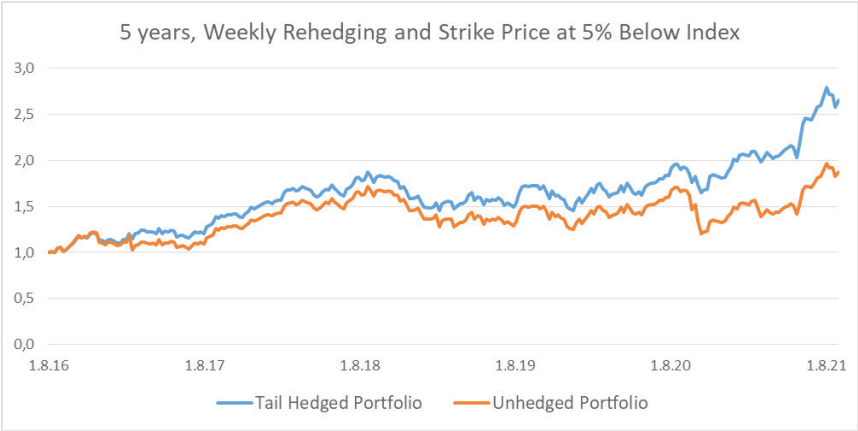
shows us that the divergence happens during times of market turbulence in Borsa Istanbul, such as currency depreciation in the summer of 2018 and the beginning of COVID-19 crisis in the spring of 2020. These visuals attest to the efficacy of the tail-hedging strategies by confirming that they indeed help investors in capping potential losses in bad times.

Table 1 summarizes the results of the base hedging strategies, namely arbitrary protection levels for 5-10% losses, leading to strike prices set at 90-95% of the index level at the time hedge is set. The volatility level is set to the standard deviation of trailing 252 trading days. The strategies are backtested for holding periods ranging from 1 year to 20 years. The summary results show that hedged portfolio outperforms the unhedged portfolio by a significant margin for holding periods up to 10 years. The return differential is negligibly small for 20-year holding periods. However, the risk levels improve for all holding periods, including 20-year cases. The volatility levels are lower for hedged portfolios, so are the maximum drawdown levels, which is an important indicator for fund performance, across the board. Furthermore, we can surmise that 5% strike levels offer a suitable level of protection as its results are better than the aggressive and expensive protection levels of 10%. It is apparent that put option prices become prohibitively costly at strike prices set at 10% lower than index levels.

Having established that tail hedging improves return and risk profiles of portfolios, we then proceed to test if we can improve the results by optimizing the level of protection to achieve the highest returns. We optimize the choice of strike price for European put options with an objective function that achieves the highest return for the holding period and rehedging frequency of our choice. The holding periods once again range from 1 year to 20 years with weekly and monthly rehedging. The optimally set strike levels determine an appropriate protection level for various holding periods and rehedging frequencies, hence improving the hedged portfolio performance further above the unhedged portfolios. They also outperform the arbitrary strategies with strike prices set at 5-10% below index levels.

Figure 1. *Cumulative Returns for Sample Portfolio Hedging Strategies and Holding Periods*





Notes: *These figures display the cumulative returns for 1-year and 5-year holding periods for both unhedged and hedged BIST 30 portfolios. Hedging is done with European put options with strike prices set to 5% below index levels and kept for 1-week horizons. Historical volatility computed over the past year (252 trading days) has been used in option pricing. Hedged portfolios outperform the unhedged portfolios in each case by a significant margin.*

Table 1. *Comparison of Hedged vs. Unhedged Portfolio Returns for Various Hedging Strategies and Holding Periods*

			Unhedged BIST 30			Tail-Hedged BIST 30		
Portfolio Holding Period	Rehedging Frequency	Protection Level	Mean	Volatility	Max Loss	Mean	Volatility	Max Loss
1 year	Weekly	5%	0.33%	4.49%	-11.50%	0.71%	3.40%	-5.32%
1 year	Weekly	10%	0.33%	4.49%	-11.50%	0.39%	4.32%	-10.02%
1 year	Monthly	5%	2.45%	9.81%	-16.44%	2.90%	7.70%	-5.95%
1 year	Monthly	10%	2.45%	9.81%	-16.44%	2.84%	8.70%	-10.08%
5 years	Weekly	5%	0.30%	3.31%	-13.50%	0.42%	2.84%	-5.32%
5 years	Weekly	10%	0.30%	3.31%	-13.50%	0.33%	3.22%	-10.02%
5 years	Monthly	5%	1.18%	6.77%	-16.44%	1.31%	5.69%	-5.95%
5 years	Monthly	10%	1.18%	6.77%	-16.44%	1.22%	6.47%	-10.08%
10 years	Weekly	5%	0.19%	3.40%	-13.50%	0.25%	3.04%	-5.32%
10 years	Weekly	10%	0.19%	3.40%	-13.50%	0.20%	3.35%	-10.02%
10 years	Monthly	5%	0.85%	7.12%	-16.44%	0.97%	5.87%	-6.17%
10 years	Monthly	10%	0.85%	7.12%	-16.44%	0.90%	6.73%	-10.32%
20 years	Weekly	5%	0.34%	4.13%	-16.37%	0.34%	3.69%	-6.03%
20 years	Weekly	10%	0.34%	4.13%	-16.37%	0.34%	4.05%	-10.09%
20 years	Monthly	5%	1.41%	8.43%	-22.65%	1.45%	6.73%	-7.58%
20 years	Monthly	10%	1.41%	8.43%	-22.65%	1.40%	7.73%	-11.22%

Notes: This table reports the return statistics for hedged and unhedged BIST 30 portfolios for various holding periods and hedging strategies. Hedging is done with European put options with strike prices set to 5% or 10% below index levels and kept for 1-week or 1-month horizons. Historical volatility computed over the past year (252 trading days) has been used in option pricing. Hedged portfolios beat the unhedged portfolios in average returns while achieving lower volatilities and drawdowns.

Basic assumptions underlying the computations above may be underestimating the costs associated with tail hedging using options. Most importantly historical volatilities might be underestimating the volatility levels used in option pricing. So called implied volatilities extracted from the option market are generally above historically realized volatilities. In order to test the robustness of our results to pricing inputs, we proceed to price European put options with implied volatility levels of existing options on BIST 30. We specifically retrieve daily implied volatility data from Refinitiv for at-the-money options and put options at 95% moneyness. Since the BIST options market is relatively young, the data is available only since 2016, limiting our tests to at most 5-year holding periods.

Table 2. *Comparison of Hedged vs. Unhedged Portfolio Returns for Optimized Protection Levels*

			Unhedged BIST 30			Tail-Hedged BIST 30		
Portfolio Holding Period	Rehedging Frequency	Protection Level	Mean	Volatility	Max Loss	Mean	Volatility	Max Loss
1 year	Weekly	3.86%	0.33%	0.20%	-11.50%	0.73%	0.10%	-4.36%
1 year	Monthly	5.46%	2.45%	0.96%	-16.44%	2.91%	0.61%	-6.31%
5 years	Weekly	3.93%	0.30%	0.11%	-13.50%	0.42%	0.07%	-4.42%
5 years	Monthly	0.89%	1.18%	0.46%	-16.44%	1.39%	0.20%	-3.22%
10 years	Weekly	2.97%	0.19%	0.12%	-13.50%	0.26%	0.07%	-3.68%
10 years	Monthly	0.00%	0.85%	0.51%	-16.44%	1.07%	0.18%	-3.53%
20 years	Weekly	4.13%	0.34%	0.17%	-16.37%	0.34%	0.13%	-5.39%
20 years	Monthly	0.42%	1.41%	0.71%	-22.65%	1.45%	0.28%	-5.22%

Notes: This table reports the return statistics for hedged and unhedged BIST 30 portfolios for various holding periods with optimized strike levels to achieve the highest returns. Hedging is done with European put options with strike prices set to the optimal levels and kept for 1-week or 1-month horizons. Historical volatility computed over the past year (252 trading days) has been used in option pricing. Hedged portfolios beat the unhedged portfolios in average returns while achieving lower volatilities and drawdowns. The optimized hedged portfolios perform better than arbitrary strategies of 5-10% protection levels.

Table 3. *Comparison of Hedged vs. Unhedged Portfolio Returns for Optimized Protection Levels with Implied Volatility*

			Unhedged BIST 30			Tail-Hedged BIST 30		
Portfolio Holding Period	Rehedging Frequency	Protection Level	Mean	Volatility	Max Loss	Mean	Volatility	Max Loss
1 year	Weekly	3.47%	0.33%	0.20%	-11.50%	0.77%	0.10%	-3.83%
1 year	Monthly	4.89%	2.45%	0.96%	-16.44%	3.01%	0.58%	-5.51%
5 years	Weekly	3.83%	0.30%	0.11%	-13.50%	0.42%	0.07%	-4.18%
5 years	Monthly	0.90%	1.18%	0.46%	-16.44%	1.37%	0.20%	-3.51%

Notes: This table reports the return statistics for hedged and unhedged BIST 30 portfolios for various holding periods with optimized strike levels to achieve the highest returns. Hedging is done with European put options with strike prices set to the optimal levels and kept for 1-week or 1-month horizons. Implied volatility based on existing BIST 30 options has been used in option pricing. Hedged portfolios beat the unhedged portfolios in average returns while achieving lower volatilities and drawdowns.

Table 3 reports the results for the case where options prices are based on implied volatilities of exchange-traded BIST 30 options. The results suggest that historical volatilities do not underprice options, as

the differences are negligibly small and even slightly better for implied volatilities.

In order to test the results in case there is a misestimation in volatility levels, we inflate historical volatility estimations by 10% and repeat the optimal hedging tests. Volatility levels set at 110% of simple standard deviation estimations would increase the put option prices and potentially make hedging prohibitively costly.

Table 4. *Comparison of Hedged vs. Unhedged Portfolio Returns for Optimized Protection Levels with Volatility set at 110% of Historical Standard Deviation*

			Unhedged BIST 30			Tail-Hedged BIST 30		
Portfolio Holding Period	Rehedging Frequency	Protection Level	Mean	Volatility	Max Loss	Mean	Volatility	Max Loss
1 year	Weekly	4.25%	0.33%	0.20%	-11.50%	0.61%	0.11%	-4.81%
1 year	Monthly	6.07%	2.45%	0.96%	-16.44%	2.46%	0.63%	-7.00%
5 years	Weekly	5.04%	0.30%	0.11%	-13.50%	0.35%	0.08%	-5.46%
5 years	Monthly	3.66%	1.18%	0.46%	-16.44%	1.03%	0.28%	-5.22%
10 years	Weekly	5.58%	0.19%	0.12%	-13.50%	0.17%	0.10%	-5.92%
10 years	Monthly	0.00%	0.85%	0.51%	-16.44%	0.72%	0.18%	-3.91%
20 years	Weekly	40.00%	0.34%	0.17%	-16.37%	0.25%	0.17%	-16.37%
20 years	Monthly	50.00%	1.41%	0.71%	-22.65%	1.05%	0.71%	-22.65%

Notes: This table reports the return statistics for hedged and unhedged BIST 30 portfolios for various holding periods with optimized strike levels to achieve the highest returns. Hedging is done with European put options with strike prices set to the optimal levels and kept for 1-week or 1-month horizons. 110% of historical volatility computed over the past year (252 trading days) has been used in option pricing. Hedged portfolios beat the unhedged portfolios in average returns while achieving lower volatilities and drawdowns, with the exception of 20-year holding period dating back to 2001.

Table 4 reports the results when volatility in option pricing is set to 110% of the historical standard deviation. Hedged portfolios outperform the unhedged ones up to 15 years of holding periods. However, the hedged portfolios cannot offer any benefit in 20-year period. The breakdown in the benefit of tail hedging is due to the fact that in early 2000's, Borsa Istanbul went through a meltdown with very high volatility levels. These volatility levels make options prohibitively costly, which is also apparent in optimal protection levels of 40-50%.

When buying options, one has to consider the transaction costs as well as management of dynamic hedging on a weekly or monthly basis. Our last case incorporates such a case where the option costs are 25%

higher than the prices suggested by Black-Scholes formula. The added premium is a conservative estimate for potential transactions costs and necessary labor to manage the hedge portfolio. The added costs are realistic estimates for the costly trading of options.

Table 5. Comparison of Hedged vs. Unhedged Portfolio Returns for Optimized Protection Levels with Volatility set at 110% of Historical Standard Deviation and 25% in Transaction Costs

			Unhedged BIST 30			Tail-Hedged BIST 30		
Portfolio Holding Period	Rehedging Frequency	Protection Level	Mean	Volatility	Max Loss	Mean	Volatility	Max Loss
1 year	Weekly	5.14%	0.33%	0.20%	-11.50%	0.62%	0.12%	-5.64%
1 year	Monthly	10.16%	2.45%	0.96%	-16.44%	2.68%	0.76%	-10.32%
5 years	Weekly	5.65%	0.30%	0.11%	-13.50%	0.37%	0.08%	-6.06%
5 years	Monthly	13.46%	1.18%	0.46%	-16.44%	1.18%	0.44%	-13.50%
10 years	Weekly	7.01%	0.19%	0.12%	-13.50%	0.21%	0.10%	-7.24%
10 years	Monthly	35.00%	0.85%	0.51%	-16.44%	0.85%	0.51%	-16.44%
20 years	Weekly	40.00%	0.34%	0.17%	-16.37%	0.34%	0.17%	-16.37%
20 years	Monthly	50.00%	1.41%	0.71%	-22.65%	1.41%	0.71%	-22.65%

Notes: This table reports the return statistics for hedged and unhedged BIST 30 portfolios for various holding periods with optimized strike levels to achieve the highest returns. Hedging is done with European put options with strike prices set to the optimal levels and kept for 1-week or 1-month horizons. 110% of historical volatility computed over the past year (252 trading days) has been used in option pricing and prices are increased by 25% to incorporate transaction costs. Hedged portfolios beat the unhedged portfolios in average returns while achieving lower volatilities and drawdowns, with the exception of 20-year holding period dating back to 2001.

Table 5 reports the comparison of the case where we consider the case that one pays 25% more for option trading in transaction costs. Since option trading is expensive, such a consideration is not unrealistic. The results concur the previous findings that hedge portfolios beat the unhedged portfolios for the optimal strategies. However, the dominance of hedged portfolios breaks down when holding periods are tested going back 15 to 20 years. The market conditions in early 2000's make hedging prohibitively costly, thus not able to improve portfolio risk-return profile.

5. Conclusion

In this study, we examined the returns of a hypothetical option-based tail-hedged portfolio with respect to naïve BIST 30 index returns. The results indicate that, even in the so-called punished versions of volatility or

put prices, this strategy either outperforms the index or performs similarly compared to its counterpart, if optimized for a fine tuning for tail hedge level. The returns improve significantly in most cases, while also reducing the risk measured by standard deviation and maximum loss levels. Portfolio managers and individual investors are highly recommended to seek portfolio insurance strategies, not only to protect themselves against losses but also to improve returns in the process.

As part of future research, it would be interesting to replicate a tail-hedged portfolio via using synthetic put options consisting of index futures and government bonds. BIST 30 index futures are very widely traded and liquid, unlike options market, that offer the possibility to cross-hedge any portfolio by itself as well as part of portfolios synthetically replicating put options.

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Chapter 15

SPHERICAL FUZZY TOPSIS METHOD AND ITS APPLICATION ON GROUP DECISION MAKING IN A RENEWABLE ENERGY PROBLEM

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Introduction:

The development of fuzzy logic in the second half of 20th century still continues today with the improvement of fuzzy sets. Moreover both fuzzy sets and their extensions have been applied on Multi Criteria Decision Making (MCDM) methods and many real life problems as in one of the most used field: Energy Planning. Fuzzy techniques in decision making in Energy Planning are widely used (Kahraman, Kaya & Çebi, 2009; Heo, Kim, & Boo, 2010; Çolak & Kaya, 2017; Zhao, Guo & Zhao, 2019; Jahangiri et all, 2020) since they are highly sensitive and advanced quantitative techniques. Moreover, extensions of fuzzy MCDM techniques are widely used in these Energy Planning Problems (Kahraman et all, 2017; Gündoğdu, 2019; Cavallaro et all, 2019; Rani, et all 2020) which are more powerful to handle the intention, perception, preferences of decision makers so are more successful to model the real life problems into mathematics. Moreover, having high ability to cope with the vagueness in the Decision Making process caused a widespread usage of fuzzy and extended fuzzy MCDM techniques.

Decision making in renewable energy sector is very important concept, since the human being will not have second chance to live after destroying the nature. After objectification of nature and exploitation of the natural sources for many centuries, the human being is now faced with huge disasters, terrifying diseases and the danger of the exhaustion of natural sources and as a result the shortage of energy, which is vital for daily life in the world. So the planning in energy sector and decision making in energy field is very important in the 21. Century. It is essential that according to its importance in human being's life, advanced quantitative techniques must be used in decision making on energy field.

In this research it is aimed to make an application of Spherical Fuzzy TOPSIS which is extended from fuzzy sets by Kutlu Gündoğdu and Kahraman (2009) in 2008. This application is performed on renewable energy planning in determining the selection of location of schools which educate labor force on renewable energy technology. This subject of the research contains a decision making problem in educating labor force in renewable energy sector which is very vital since the qualified labor force is very important to construct a clean, balanced and qualified future for human being. Rest of the paper organized as follows: Section 1 consists of the explanation of the method of Spherical Fuzzy TOPSIS, Section 2 consist of a literature review on Fuzzy TOPSIS, Section 3 summarizes how the labor force educated in Turkey for renewable energy jobs. Section 4 consist of the application of Spherical Fuzzy TOPSIS on Decision Making in Renewable Energy Problem. The last section consist of the conclusion and the suggestions for further work.

Section 1: Spherical Fuzzy Sets and Spherical Fuzzy TOPSIS

After the construction of Fuzzy Set Theory by Lütfi Asker Zadeh in 1965, it has been started to be used in many fields as also in MCDM methods. Moreover the fuzzy sets are extended to Type-2 Fuzzy Sets, Interval Valued Fuzzy Sets, Intuitionistic Fuzzy Sets, Fuzzy Multisets, Intuitionistic Fuzzy Sets of Second Type, Neutrosophic Sets, Nonstationary Fuzzy Sets, Hesitant Fuzzy Sets, and Spherical Fuzzy Sets which all have reflections on the MCDM methods.

TOPSIS (Technique for Order of Preference by Similarity to Ideal Solution) is a MCDM method based on the selection of the best alternative with closest to positive ideal solution and farthest from negative ideal solution simultaneously. Technique is firstly proposed by Hwang & Yoon (1981). It is developed in the works of Chen & Hwang (1992) and Hwang, Young, & Ting (1993).

After construction of Fuzzy Set Theory by Zadeh, consisting of "membership degree" standing up against the binary representation of classical set theory, the new era has been started in the second half of the 20th century that human being gained a new mathematical tool-*Fuzzy Set Theory* to cope with the vagueness and impreciseness in modelling the judgments, preferences and opinions, briefly experiences. Then emerging labor by researchers concentrating on the Fuzzy Set Theory satisfied a huge improvement in extension of the theory.

Atanassov extended the Fuzzy Set Theory to Intuitionistic Fuzzy Set Theory by considering the hesitancy degree in human being's mind, which consists of membership, non membership and hesitancy degree notions in 1986 (Atanassov, 1999, 1-9).

Yager and Abbasov (2013) extended the theory to Pythagorean Fuzzy Sets. They constructs the theory as squared sum of membership and non-membership degrees of fuzzy sets lies between 0 and 1.

Fuzzy Sets has been extended to Spherical Fuzzy Sets by Kutlu Gündoğdu and Kahraman in 2018. Spherical Fuzzy Sets contains fuzzy numbers that squared sum of membership, non-membership and hesitancy degree of the fuzzy number lies between 0 and 1. A fuzzy set A_S is defined as in the Eq. 1, where $\mu_A(x)$, $\nu_A(x)$ and $\pi_A(x)$ denote the membership, non-membership and hesitancy degrees respectively (Kutlu Gündoğdu, 2019, 17-18).

$$A_S = \left\{\left\langle u, \mu_{A_s}(u), \nu_{A_s}(u)\right\rangle | u \in X\right\} \tag{1}$$

The$\mu_{A_s}(u)$, $\nu_{A_s}(u)$ and $\pi_{A_s}(u)$ satisfies the condition given in Eq.2 (Kutlu Gündoğdu, 2019, 17-18).

$$0 \leq \mu_{A_s}^2(u) + v_{A_s}^2(u) + \pi_{A_s}^2(u) \leq 1 \quad (2)$$

With the help of Spherical fuzzy TOPSIS, homogeneous degree of judgments of different decision makers can be taken into account. Table 1 shows the Linguistic Terms and their correspondence Spherical Fuzzy values that is used to convert the opinions of DMs on the subject.

Table 1. Linguistic terms and their Spherical Fuzzy Values

Absolutely more Important (AVI)	(0.9, 0.1, 0.1)
Very High Important (VHI)	(0.8, 0.2, 0.2)
High Important (HI)	(0.7, 0.3, 0.3)
Slightly more Important (SMI)	(0.6, 0.4, 0,4)
Equal Important (EI)	(0.5, 0.5, 0.5)
Slightly Low Important (SLI)	(0.4, 0.6, 0,4)
Low Important (LI)	(0.3, 0.7, 0,3)
Very Low Important (VLI)	(0.2, 0.8, 0,2)
Absolutely Low Important (ALI)	(0.1, 0.9, 0,1)

Kutlu Gündoğdu & Kahraman, 2019, p.346.

The steps of Spherical Fuzzy TOPSIS algorithm are given below (Kutlu Gündoğdu, 2019, 20-21):

The initial formulas that is need to be used in the algorithm of spherical fuzzy TOPSIS are given in the Eq.1 and Eq.2. The evaluations of DMs with respect to their appointed weights can be combined with the Spherical Weighted Arithmetic Mean (SWAM) operator given in the Eq.3

$$SWAM_w(A_{S1}, \dots\dots, A_{Sn}) = w_1.A_{S1} + w_2.A_{S2} + \dots\dots\dots\dots + w_n.A_{Sn} = \left\{ \left[1 - \prod_{i=1}^{n}\left(1 - \mu_{A_{si}}^2\right)\right]^{\frac{1}{2}}, \prod_{i=1}^{n} v_{A_{Si}}^{wi}, \left[\prod_{i=1}^{n}\left(1 - \mu_{A_{si}}^2\right)^{wi} - \prod_{i=1}^{n}\left(1 - \mu_{A_{si}}^2 - \pi_{A_{si}}^2\right)\right]^{\frac{1}{2}} \right\} \quad (3)$$

The multiplication operation, used in the multiplication of criteria weights with the Decision Matrix in the Spherical Fuzzy TOPSIS is given in the Eq. 4

$$A_S \otimes B_S = \left\{ \mu_{As}.\mu_{Bs}, \left(v_{As}^2 + v_{Bs}^2 - v_{As}^2.v_{Bs}^2\right)^{1/2}, \left(\left(1 - v_{Bs}^2\right)\pi_{As}^2 + \left(1 - v_{As}^2\right)\pi_{Bs}^2 - \pi_{As}^2\pi_{Bs}^2\right)^{1/2} \right\} \quad (4)$$

After filling of 9 point scale by DMs, the opinions are converted to Spherical Fuzzy values according to the Table 1. Then the opinions are aggregated by using the SWAM Operator (Eq. 1) with respect to the DMs' different weights. Kutlu Gündoğdu and Kahraman (2019) also proposed Spherical Weighted Geometric Mean (SWGM) that can be used to combine the opinions of DMs as well as they proposed the SWAM operator.

Similarly alternatives, rated by DMs, are converted to Spherical Fuzzy values and then combined by SWAM Operator (Eq. 1) by considering their different weights, and then the Decision Matrix is formed.

The weights of criteria is multiplied with the Decision Matrix by using Eq.2 and, than, Weighted Decision Matrix is ready to start the Spherical Fuzzy TOPSIS Algorithm.

Spherical Fuzzy Positive Ideal Solution (SF-PIS) and Spherical Fuzzy Negative Ideal Solution (SF-NIS) sets are formed by using the Eq.5, Eq.6 and Eq.7

$$Score\left(C_j(X_{iw})\right) = \left(\mu_{ijw} - \pi_{ijw}\right)^2 - (v_{ijw} - \pi_{ijw})^2 \tag{5}$$

$$X^* = \left\{C_j, \max_i < Score\left(C_j(X_{iw})\right) >: j = 1,2,\dots,n\right\} \tag{6}$$

$$X^- = \left\{C_j, min_i < Score\left(C_j(X_{iw})\right) >: j = 1,2,\dots,n\right\} \tag{7}$$

The SF-PIS set and SF-NIS set are formed by using Eq. 8 and Eq.9

$$X^* = \left\{< C_j,\ \left((\mu_j^*, v_j^*, \pi_j^*)\right) >: j = 1,2,\dots,n\right\} \tag{8}$$

$$X^* = \left\{< C_j,\ \left((\mu_j^-, v_j^-, \pi_j^-)\right) >: j = 1,2,\dots,n\right\} \tag{9}$$

Distances to SF-PIS set and SF-NIS set are determined by using Eq. 10 and Eq.11.

$$D(X_i, X^*) = \sqrt{\frac{1}{2n}\sum_{i=1}^{n}\left((\mu_{X_i} - \mu_{X^*})^2 + (v_{X_i} - v_{X^*})^2 + (\pi_{X_i} - \pi_{X^*})^2\right)} \tag{10}$$

$$D(X_i, X^-) = \sqrt{\frac{1}{2n}\sum_{i=1}^{n}\left((\mu_{X_i} - \mu_{X^-})^2 + (v_{X_i} - v_{X^-})^2 + (\pi_{X_i} - \pi_{X^-})^2\right)} \tag{9}$$

Then maximum distance to SF-NIS and minimum distance to SF-PIS are constructed by the Eq.12 and Eq.13.

$$D_{max}(X_i, X^-) = max_{1 \le i \le m}\, D(X_i, X^-) \tag{12}$$

$$D_{min}(X_i, X^*) = min_{1 \leq i \leq m}\, D(X_i, X^*) \tag{13}$$

The researchers Kutlu Gündoğdu and Kahraman (2019) modified the closeness ratio in order to obtain non negative values. The proposed Closeness Ratio can be calculated by using Eq. 14.

$$(X_i) = \frac{D(X_i, X^*)}{D_{min}(X_i, X^*)} - \frac{D(X_i, X^-)}{D_{max}(X_i, X^-)} \tag{14}$$

Alternatives can be ranked by the criteria of increasing values of Closeness Ratio.

Section 2: Literature Review on Fuzzy TOPSIS

TOPSIS is an n dimensional geometrical system consisting of m alternatives. Its' main aim is to find the compromise solution which is shortest distance to ideal and farthest difference to negative ideal ones by using Euclidian Distance Measure (Tzeng & Huang, 2011, 69). Algorithm generates an index called "the closeness Ratio" that is the final measure to decide the ranking of alternatives. The fuzzy TOPSIS and the extensions of fuzzy TOPSIS algorithm is based on the similar principle. In this part researches that used fuzzy TOPSIS and its extensions are examined.

Boran et all (2009) used an Intuitionistic Fuzzy TOPSIS by using an Intuitionistic Fuzzy Weighted Averaging (IFWA) operator to aggregate the judgments of DMs in the group decision. They applied the method on a typical supplier selection problem consisting conflicted criteria with vogue and imprecise knowledge of DMs.

Park et all (2011) used an Interval Valued Intuitionistic Fuzzy TOPSIS in a MCDM problem to make a group decision. They combined the judgment of DMs with Interval Valued Intuitionistic Fuzzy Numbers.

Kaya and Kahraman (2011) used a modified fuzzy TOPSIS in the selection of the best energy technology alternative. They proposed a method of fuzzy pairwise comparison of criteria weights.

Zhang and Xu (2014) used a soft computing technique to maximize the consensus in interval valued fuzzy TOPSIS in Multi Attribute Decision Problems. They proposed a novel approach that handle the ranking information provided from the experts in intuitionistic interval valued fuzzy numbers.

Roszkowska and Kacprzak (2016) used the Ordered Fuzzy TOPSIS method based on the Ordered Fuzzy Numbers. They extend the linguistic terms scale which considers intermediate values of extreme values of linguistic terms scale.

Petrovic et all (2019) used fuzzy TOPSIS, fuzzy WASPAS and fuzzy ARAS in a supplier selection problem. They determined the criteria weights with fuzzy SWARA. Then they compared the results.

Memari et all (2019) used the Intuitionistic Fuzzy TOPSIS method on the supplier selection problem. They applied the group decision making on the supplier selection problem consisting of 9 criteria and 30 sub-criteria with numerous conflicting ones.

Kutlu Gündoğdu and Kahraman (2019) used the Spherical Fuzzy TOPSIS method that they have proposed before, on a supplier selection problem of air condition suppliers. They also proposed a closeness index which has nonnegative values for the Spherical Fuzzy TOPSIS algorithm.

Akram, Dudek and İlyas (2019) used a Pythagorean Fuzzy TOPSIS method, that contains an algorithm with consisting of Pythagorean Fuzzy Numbers in each entry of matrices. Pythagorean Fuzzy Numbers satisfies the conditions of squared sum of membership and non membership degree are less than 1.

Rani et all (2020) used an extended fuzzy TOPSIS method to rank the renewable energy sources. They have proposed a novel divergence measure in fuzzy TOPSIS algorithm.

Section 3: Educating Labor force for Renewable Energy Jobs in Turkey

According to 11th 5 year-Development Plan for Turkey, which covers the years 2019-2023, public and private sector will make investments and conduct projects to increase the usage of renewable energy sources by the end of 2023. It is planned to upraise the utilization from renewable energy sources up to 38,5 % (Eleventh Development Plan, pp. 119-121). This planning in the usage of renewable energy sources implies a necessity of mass educated labor force which is qualified on all the stages of using renewable energy sources, consisting of installation, operation, maintenance, investments, marketing, planning, distribution etc. So one of the important factors for those production planning is educating qualified labor force for renewable energy jobs (Kayahan Karakul, 2016).

In Turkey the main source of labor in renewable energy jobs is educated in Vocational and Technical High Schools from the Renewable Energy Technologies (RET) branches. The RET branches founded in Vocational and Technical High Schools in 2012 and they consist of two sub-branches: solar power and wind power. In those branches, Vocational and Technical High Schools students are educated on installation of small and large sized power plant that produce energy from solar and wind power, also on the maintenance and repairing of those renewable energy

sources. Graduates of RET branches can either directly work in the wind or solar energy centers, turbine installation firms and firms that produce wind-solar energy or continue to be educated in many different higher education institutes of following departments of universities during two years without a selection exam (OSYM, 2021,108):

-Alternative Energy Sources Technologies,
-Electricity
-Production Transmission & Distribution of Electrical Energy,
-Electrical Devices Technology
-Electronic Communication Technology
-Electronic Technology
-Business Management of Energy Plants
-Control and Automation Technology

Moreover the graduates can prefer to have a professional university education during 4 years after the Central Selection Exam in Turkey with a special quota for them in the following departments of universities (OSYM, 2021,73):

-Electrical and Electronic Engineering
-Electronics and Communications Engineering
-Energy Systems Engineering
-Mechanical Engineering.

This special quota guaranties them to have a positive discrimination in the Central Selection Exam between other students who are educated in other kinds of High Schools. Moreover it is a kind of policy to promote the higher education of RET graduates which is parallel to the Renewable Energy policies of Turkey.

As a summary the branches of RET of Vocational and Technical High Schools educate the human capital for the renewable energy jobs. But unfortunately the Vocational and Technical Schools that has RET branches are not widespread yet. So the planning of producing renewable energy contains the decision of selection of school sites that educate those labor force for aiming to increase the number of RET branches in Vocational and Technical High Schools. Private sector in vocational high schools can make preferences of location of school sites as well as the public sector. Figure 1 shows existing Vocational and technical high schools that has RET branches by the school year 2020-2021.

Figure 1: The schools that has Renewable Energy Technologies branch and Alternative School Sites (MTEGM, 2021)

Although there are 922 districts and 81 provinces in Turkey only 53 schools have RET branches in Turkey even some of provinces has more than one, many of them has not any. The red triangles in Figure 1 shows the exiting schools containing RET branches by the school year 2021.

Section 4: Application of Spherical fuzzy TOPSIS on the Renewable Energy Problem

Alternatives of this research is determined by the geographical allocation of schools shown in Figure1: A1 to A7 starting from west parts to eastern ones.

A1: Muğla,

A2: Çanakkale,

A3: Karabük,

A4: Kırşehir,

A5: Tokat ,

A6: Tunceli,

A7:Erzurum

For determining the criteria of the research a literature review has conducted on the school location selection problem. Uslu, Kızıloğlu, İşleyen and Kahya (2017) used AHP-TOPSIS approach for solution of

selection problem of a primary school site with the help of a geographical data collection program. They used the criteria of infrastructure, accessibility, potential growth, population density, security, environment pollution, closer similar plants.

So according to the originality of this research the criteria of the research has been determined as the following by the views of 3 DMs, who has expertise on the planning of the education system.

C1: The closeness to Renewable Energy Sources

C2: Employment capability in the renewable energy field.

C3: The improvement potential of the population

C4: Social Dimension

C5: Consciousness of people about Environment

Three experienced DMs who has worked as administrators in the public schools has rated the scale. According to their experiences their views' weights of importance is determined as 0.5, 0.3 and 0.2 respectively. The opinions of experts for the importance degree of the criteria are given in the Table 2.

Table 2. Importance Weights of Criteria According to opinions of DMs

	DM1	DM2	DM3
C1	EI	AMI	LI
C2	AMI	HI	VHI
C3	HI	EI	VLI
C4	SLI	SLI	VHI
C5	VLI	VLI	SLI

The Aggregation of The DMs opinions by using SWAM operator is given in the Table 3.

Table 3. The results of Aggregation of Criteria weights according to SWAM

C1	(0.61,0.43,0.33)
C2	(0.83,0.18,0.19)
C3	(0.49,0.54,0.33)
C4	(0.67,0.35,0.29)
C5	(0.32,0.69,0.33)

The Judgments of DMs on the alternatives of the research is given in the Table 4.

Table 4. Opinions of DM1 with weight

	DM1 with weight % 50					DM1 with weight % 20					DM1 with weight % 30				
	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
A1	VHI	VHI	HI	VHI	AMI	SMI	SMI	AMI	VHI	AMI	EI	HI	EI	HI	SMI
A2	AMI	VHI	VHI	VHI	HI	VHI	SMI	AMI	VHI	AMI	HI	VHI	HI	SMI	VHI
A3	SLI	EI	LI	SLI	VHI	SLI	SMI	EI	HI	VHI	SMI	SMI	SMI	HI	EI
A4	EI	LI	LI	SLI	SLI	EI	EI	SLI	HI	HI	HI	EI	SLI	HI	SLI
A5	EI	EI	EI	EI	SLI	LI	EI	LI	LI	SMI	EI	EI	EI	SLI	SLI
A6	SLI	LI	LI	HI	SLI	SLI	SLI	ALI	SLI	LI	LI	SLI	ALI	SLI	VHI
A7	ALI	LI	LI	EI	SLI	LI	SLI	ALI	LI	LI	LI	LI	EI	VHI	VHI

The Aggregated Decision Matrix obtained by using the SWAM operator in Eq.3, is given in the Table 5. The DMs weights are considered while calculating the SWAM operator.

Table 5. Aggregated Decision Matrix

	C1	C2	C3	C4	C5
A1	(0.71,0.04,0.32)	(0.74,0.02,0.28)	(0.77,0.02,0.27)	(0.76,0.01,0.22)	(0.87,0.00,0.15)
A2	(0.85,0.01,0.16)	(0.76,0.02,0.28)	(0.83,0.01,0,19)	(0.78,0.02,0.25)	(0,80,0.01,0.21)
A3	(0.45,0.14,0.40)	(0.55,0.08,0.45)	(0.45,0.14,0.41)	(0.56,0.05,0.35)	(0.76,0.02,0.26)
A4	(0.55,0.08,0.46)	(0.42,0.1,0.43)	(0.35,0.25,0.36)	(0.53,0.05,0.35)	(0.53,0.11,0.37)
A5	(0.45,0.18,0.46)	(0.50,0.13,0.50)	(0.45,0.18,0.46)	(0.45,0.21,0.44)	(0.48,0.14,0.31)
A6	(0.38,0.25,0.38)	(035,0.25,0.36)	(0.26,0.45,0.26)	(0.57,0.11,0.35)	(0.52,0.08,0.33)
A7	(0.26,0.39,0.26)	(0.27,0.38,0.28)	(0.33,0.28,0.35)	(0.45,0.07,0.42)	(0.52,0.08,0.33)

The Weighted Decision Matrix is given in the Table 6 which is obtained by using multiplication operation in Eq.4.

Table 6. Weighted Decision Matrix

	C1	C2	C3	C4	C5
A1	(0.43,0.43,0.19)	(0.61,0.18,0.33)	(0.38,0.54,0.39)	(0.51,0.35,0.35)	(0.28,0.69,0.34)
A2	(0.52,0.43,0.35)	(0.62,0.18,0.31)	(0.41,0.54,0.36)	(0.53,0.35,0.36)	(0.26,0.69,0.35)
A3	(0.28,0.45,0.47)	(0.46,0.19,0.47)	(0.22,0.56,0.46)	(0.38,0.35,0.42)	(0.24,0.69,0.37)
A4	(0.34,0.43,0.51)	(0.34,0.25,0.45)	(0.18,0.58,0.43)	(0.35,0.35,0.43)	(0.17,0.70,0.40)
A5	(0.28,0.46,0.51)	(0.41,0.21,0.52)	(0.22,0.56,0.49)	(0.30,0.40,0.49)	(0.15,0.70,0.38)
A6	(0.23,0.49,0.45)	(0.29,0.30,0.39)	(0.13,0.66,0.36)	(0.38,0.36,0.42)	(0.17,0.70,0.39)
A7	(0.16,0.56,0.37)	(0.22,0.41,0.32)	(0.16,0.59,0.42)	(0.30,0.35,0.47)	(0.17,0.70,0.39)

The Score function values are calculated by using Eq. 5 and the results are given in the Table 7.

Table 7. Score Function Values

	C1	C2	C3	C4	C5
A1	0,002	0,057	-0,022	0,027	-0,119
A2	0,021	0,081	-0,030	0,026	-0,105
A3	0,036	-0,078	0,046	-0,003	-0,091
A4	0,023	-0,031	0,038	0,000	-0,033
A5	0,050	-0,080	0,063	0,025	-0,052
A6	0,046	0,002	-0,037	-0,002	-0,045
A7	0,011	0,001	0,035	0,014	-0,045

The SF-PIS set and SF-NIS set are constructed by using Eq. 6 and Eq.7. The results are given in the Table 8.

Table 8. SFPIS and SFNIS Sets

X^*Best	0,28	0,46	0,51	0,62	0,18	0,31	0,22	0,56	0,49	0,51	0,35	0,35	0,17	0,70	0,40
X^-Worst	0,43	0,43	0,19	0,22	0,41	0,32	0,13	0,66	0,36	0,38	0,35	0,42	0,28	0,69	0,34

The distances to positive ideal solution and negative ideal solution are calculated by using Eq. 10 and Eq.11 and the results are given in Table 9.

Table 9. Distances to Positive and Negative Ideal Solutions

	$D(X_i, X^*)$	$D(X_i, X^-)$
A1	0,1331	0,445
A2	0,119	0,451
A3	0,0939	0,449
A4	0,121	0,442
A5	0,1244	0,45
A6	0,1399	0,438
A7	0,1806	0,437

The Closeness Ratio has been calculated by using Eq.12 and the results and the ranks of alternatives according to closeness ratio has been given in Table 10.

Table 10. Closeness Ratio and The Rank of Alternatives

Alternatives	Closeness Ratio	Rank
A1	0,42923	5
A2	0,26712	2
A3	0,00524	1
A4	0,30831	3

A5	0,32726	4
A6	0,51837	6
A7	0,95417	7

According to Table 10 the alternatives are ranked as $A3 > A2 > A4 > A5 > A1 > A6 > A7$. For selection of city for the renewable energy technologies branch in Vocational and Technical High Schools. The ranking of alternatives is as follows:

$Karabük > Çanakkale > Kırşehir > Tokat > Muğla > Tunceli > Erzurum$

Section 4: Results and Suggestions of Future Work

In this research the Spherical fuzzy TOPSIS method successfully applied on a renewable energy decision problem. Spherical Fuzzy TOPSIS method allowed to handle the judgments of DMs more precisely and more sensitive than the classical methods since it consist of three inputs to model the real life problem in mathematics: which are membership degree, non membership degree and hesitancy degree. Moreover method depictured the judgments of DMs into a unit sphere in the three dimensional coordinate system.

Also method allowed to take into account of DMs different experience levels. In this research DMs judgments are weighted as % 50, % 30 and % 20 on the shared decision. The Linguistic Scale of the method enables to convert the DMs opinions easily to Spherical Fuzzy values.

The ranking of alternatives in the Decision problem in Renewable Energy Planning is formed as Karabük, Çanakkale, Kırşehir, Tokat, Muğla, Tunceli and Erzurum which is hoped to be a guide for Decision Makers in education field. Those are the rankings of provinces of Turkey which are needed to have RET branches in the Vocational and Technical Schools in order to educate labor in Renewable Energy.

For further research, the SWGM operator can be used to compare the change in results as also the other operators proposed by different researchers; other Distance Measures different from the Euclidian Distance measure can be used to compare the results, other fuzzy MCDM techniques' algorithms can be extended to Spherical Fuzzy Sets and their applications can be made to compare the results.

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Chapter 16

CREATING A STRONG BUSINESS BUILDING A BETTER WORLD: CORPORATE SOCIAL RESPONSIBILITY IN TURKEY

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INTRODUCTION

Corporate Social Responsibility is becoming an increasingly prominent global issue all over the world, due to the concerns over environmental and social problems and also legislative changes. In today's competitive business environment, corporations widely accepted the importance of CSR as a vital component of business philosophy and practices. Main objectives of the corporations are not only production and distribution of products and services satisfying consumers' needs and making profits but also establishing a long-term relationship with all stakeholders. Corporations are willing to take actions for social development, promotion of healthy lifestyles, environmental protection that is called as social responsibility (Kadlubek, 2015). They comprehend that their responsibilities are not limited to only legal or economic ones, but also evolve involvement in activities aiming improvement of quality of life of its clients, employees and stakeholders, promotion of social wealth and protection of cultural and social values of the environment and society (Deng, Kang & Low, 2013). Thus, they started to do business with this sense of social responsibility.

Corporate social responsibility is an Anglo-American concept that spreading from developed countries to developing countries. It is grounded on the idea that society and corporations are feeding each other. CSR can be defined as "a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment and integrate social and environmental concerns in their business operations" (European Commission, 2001, p.6). Within this framework, corporations are expected to act in responsible manner to its stakeholders, clients, employees and society. The focus of the concept includes taking into accounts public concerns, respecting society and environment and acting in an ethical manner.

There are some obvious benefits for corporations to behave socially responsible. While implementing CSR practices, corporations have a chance to build and develop positive relationship with their stakeholders. They can also enhance their legitimacy, ensure consumer and employee loyalty, and promote community goodwill (Portney, 2008, pp. 263-265). Besides, corporations achieve their future goals through CSR initiatives.

The CSR concept has been introduced to the literature for the first time by Bowen (1953), and developed throughout the years with other researchers. In his landmark book *Social Responsibilities of the Businessman* (1953) Bowen argues that the corporations are very powerful and all of the corporations' actions have an impact on society. Bowen continues by saying that social responsibility can guide business but not

a solution for all businesses' social problems. He defines the concept as "obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (Bowen, 1953, p. 6).

After Bowen, starting with Carroll (1979), different models, theories and components of CSR have been introduced and measurement scales have been developed in order to measure the performance of the corporation in the CSR field. Researchers have agreed that the companies should address the social problems although there is no specific instrument in order to measure this. Carroll (1979) developed a comprehensive framework to understand various dimensions of CSR. Carroll defines the concept as "the social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (p. 500). To clearly explain "social responsibility" Carroll formed a four-part CSR model and created a CSR pyramid (Carroll, 1991, p. 42). The pyramid includes four parts including legal, economic, ethical and philantrophic responsibilities of corporations. The first step of the pyramid includes economic responsibilities. It suggests that society expects corporations to produce goods and services and sell them at a profit. Making profit and expanding is also fundamental responsibility of corporations. The second component of the pyramid is legal responsibility. Corporations should fulfill its economic mission within the framework of legal requirements. In other words, corporations should obey the laws. To be ethical is corporations' next responsibility. Being an ethical is an obligation to do what is right, just and fair. Also, adopting voluntary codes of governance and ethics is included in the third step. The last component of the pyramid is discretionary (philanthropic) responsibilities. This responsibility is beyond obeying the laws and rules. It is related to individual judgement and choice. Corporations are expected to be a good corporate citizen by supporting the society. According to Carroll (2016), while society expects compliance with the law, it also requires being ethical and good corporate citizenship.

CSR has become a management strategy which is formalized and integrated into organizational structures, policies and practices in developing countries as well as developed countries since 1990's. Thus, CSR is gaining more and more importance not only in developed countries but also developing countries. The implementation of these CSR differs from country to country. Socio-cultural environment, political system, education, labor system and level of economic development influence the implementation of CSR. In some countries, economic responsibilities get the most emphasis while ethical and philanthropic responsibilities are given second priority. According to Visser (2008) developing countries are

more vulnerable to social, environmental and economic crisis, since they are rapidly expanding economies. For this reason, the implementation of CSR agenda can be quite different when compared to developed countries.

As a developing country, Turkey has taken important step about corporate social responsibility and sustainability practices. The concept of CSR does not have a long history in Turkey. However, in recent years, corporations in Turkey, shows more and more interest in environmental protection, reducing energy costs, gender equality and educational problems. The number of NGOs and consulting firms that provide services in this area, as well as CSR resources like the Istanbul Stock Exchange's Sustainability Index, which was launched in 2014, is increasing progressively.

In terms of sustainability and CSR, there are various dynamics. The dynamics of the region have an effect on the large companies operating in Turkey. Turkish firms, for example, are expected to follow European Union regulations. If firms do not organize and execute their activities in this direction, the business operations they conduct with European companies will be jeopardized. This natural risk puts positive pressure on businesses. (Sustainability Reporting National Review Report, 2016). Thus it is important to conceptualize CSR implementation of a country, according to its conceptual background. This paper attempts to reveal the CSR understanding and implementation of corporations from different sectors in Turkey.

BACKGROUND

The evolution of social responsibility has started together with the emergence of civilization. Hence, the evidences of practices that can be defined as CSR can be seen even during the prehistoric ages. For example, business parties' responsibilities and worker rights were mentioned in the Sumerian tablets. Also, in ancient Mesopotamia around 1700 BC, King Hammurabi introduced a code (Code of Hammurabi) describing the responsibilities of the parties engaging in business activities. Aristotle also mentioned the ethical conduct of business enterprises, in the fourth century BC (Epstein, 2002). With the Industrial Revolution mass production has begun and modern business administration practices were generated. Within this period, the ultimate aim of the enterprises was maximizing their own profits (Aydıntan, 2006). In the early twentieth century, the negligent practices of corporates became widespread. As a consequence, during 1930s, workers acquired union rights and working conditions improved.

After World War II, people were prone to focus on social problems (Hay and Gray, 1974). In this regard, social problems such as water and air pollution, poverty, and disregarding of consumers drew attention (Hay and Gray, 1974). As a consequence of these changes in the first half of the 20th century, it can be predicted that business environment went through a transformation. Then, a new period started for the CSR concept.

Evolution of CSR concept has a long history. In the early studies, it has been replaced by the term social responsibility. This may be explained by the fact that in these years, corporations' prominence and dominance had not emerged or been noted yet (Carroll, 1999). New alternative concepts have also been proposed such as corporate citizenship, corporate sustainability, and corporate social performance (Marrewijk, 2003; Waddock, 2004).

As previously stated, the evolution of CSR has started with Bowen's publication of his book Social Responsibilities of the Businessmen (Bowen, 1953). In his book, The Practice of Management, Peter Drucker described the eight main areas in which business goals should be set after Bowen. (Drucker, 1954). He included public responsibility as one of these eight areas. He argued that "it has to consider whether the action is likely to promote the public good, to advance the basic beliefs of our society, to contribute to its stability, strength and harmony" (Drucker, 1954, p. 388). In line with Bowen, and Drucker, Selekman (1959) drew attention to the businessmen's responsibilities to society during 1950s.

On the contrary, in 1958 Lewitt asserted that going beyond economic and legal obligations was harmful for the companies. According to him, companies' only aim was to maximize profits and it was sufficient that they respect fundamental ethical standards.

After the 1950's, the transition from social responsibility concept to CSR has begun. During the 1960's, corporations were expected to take more and more social responsibility along with the economic and legal responsibilities. In this regard, consumers' and employees' expectations caused the introduction of new standards and formation of new supporter bodies such as Consumer Product Safety Commission and US Equal Employment Opportunity Commission (Acquier et al., 2011). With regard to the environment, World Wildlife Fund was established in 1961 to protect the future of the nature.

In the academic field Davis (1960) and McGuire (1963) contributed to the evolution of the social responsibility concept. Davis asserted that while making decisions corporations should bear in mind their social responsibility. Accordingly, James McGuire (1963) in his book *Business and Society*, mentioned social responsibility as a factor urging corporations

to assume responsibilities to society. In 1967, Davis reinforced his social responsibility concept by highlighting that there should be a mutual relation between corporations and society since a healthy business cannot exist within an unhappy and discontent society.

On the contrary, Friedman introduced an opposite view by asserting that the one and only responsibility of corporation is economic responsibilities to its stakeholders. He argued that "few trends would so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their shareholders as they possibly can" (Friedman, 1962, p. 133). Friedman emphasized "maximizing profit on behalf of shareholders" as the main responsibility of corporation. But, in 1970 he reinforced his work and accepted the social demand of the society into corporation if they were profitable in the long term.

According to Patrick Murphy the awareness of CSR started to increase in the 1960s and early 1970s. He entitled this period as the period of realization of social consciousness and recognition of overall responsibility, concern about community interest, take a stand against racial discrimination, reduction in environmental pollution, and the ongoing philanthropic period in which corporate charitable contributions were prioritized (Murphy, 1978). Frederick also characterized the 1960s and 1970s as a stage of 'corporate social responsiveness' (Frederick, 2008). In this decade, there was a discussion on corporate social responsibility, responsiveness and performance. Frederick (1960), formalized this distinction by defining corporate social responsibility as assuming a socially responsible posture while responsiveness means taking action and achieving a responsive posture towards society.

In the 1980's, produced fewer original definitions of the concept, more attempts to conduct research on measurement of CSR (Akgöz & Engin, 2016). In 1981, Preston and Post presented the "public liability" term to emphasize the importance of public aspect defining the scope of corporation's responsibilities. They asserted that corporations should consider the results of their actions, but at the same time they emphasized that they cannot solve the all problems of society.

In 1985, Wartick and Cochran adapted the Carroll's CSR model by offering that in the field of business and society corporate social performance can combine the three dominant orientations. These are the conceptual orientation, which is concerned with social responsibility values, the institutional orientation, which is concerned with the social responsiveness phase, and the organizational orientation, which is concerned with social problem management policies.

The quest for CSR accelerated in terms of its global outreach in 1990's. In this decade, CSR concept transitioned to an alternative theme calling corporate citizenship. During this period, there were no new original definitions added to the CSR literature. In the early 2000s, the notion of sustainability and sustainable development came into prominence. Sustainability refers to addressing people's needs without jeopardizing future generations' ability to fulfill their own. In addition to natural resources, social and economic resources are in the scope of sustainability. In this respect, corporations are expected to avoid short-term actions that are socially harmful or wasteful to the ecosystem (Marrewijk, 2003).

As it seen, while the society and business have changed over time, the way that CSR practices have been conceptualized and expressed have also changed. Today, CSR became a management strategy that integrated into organizational structures policies and practices both in developed countries and also developing countries (Saraç, Erdur &Bektaş, 2017). The perception and implementation of CSR practices have varied in different countries, especially in developing countries. Visser (2008) referred some specific features of developing countries by mentioning that they are rapidly expanding economies, they can easily be affected by social and economic crisis, globalization, and economic growth. Visser continued by stating that while economic responsibilities comes foremost, philanthropic responsibilities have the second place followed by legal and ethical responsibilities.

Different researches focusing on developing countries have been conducted in different countries (Moon & Shen, 2010, Kuznetsov, Kuznetsova &Warren, 2009). However, further research is needed to examine CSR practices in developing countries, especially in different sectors.

Corporate Social Responsibility in Turkey

The Turkish Republic has taken steps towards industrialization and modernization and a strong emphasis has been placed on the role of the state in economic development since its foundation (Boratav, Economic History of Turkey). Until 1945, the government played a major role in the economy, where the State Economic Enterprises (KT) collaborated with the private sector and served as the economy's primary actor. With the 24th January decisions made in 1980, the market economy was put into operation in Turkey, and measures for the liberalization of the economy were implemented, due to the impact of developments in the global conjuncture and dramatic shifts in the global economic structure. After 1980, the development of market economy institutions gained momentum due to liberalization (Ararat, 2008). Nations Developments

Program's categorizes Turkey as a developing country, since there has been a rapid and continuous economic growth in Turkey since 1980's. Turkey has a rich Turkish-Islamic culture that consisting values that form a basis for philanthropy of people and organizations (Saraç et. al, 2017). In the Ottoman era, a charitable foundation called the "waqf" and the "ahi-community" were the CSR related organizations and most prominent structures for philantrophic provision of public services such as education, health and social sevurity (Ararat, 2008). The Ahi community, which dates back to the 13th century, dominated Anatolia's social and economic life. The Ahi community is an artist and crafts community that aims to provide knowledge in the field of art while also emphasizing ethical values. To be the part of these organizations required some ethical principles such as helping the needy people even if h/she were enemy and they also focused on social cooperation and solidarity (Alakavuklar, Kılıçaslan& Öztürk, 2009).

Because of Turkey's political and economic system over the last 50 years, including military coups and an unstable economy with periods of high inflation, it is possible to assume that the country's economic and political environment were not conducive to long-term planning, and thus to concerns about sustainable development and social responsibility. Nonetheless, following Turkey's efforts to align its economy with that of developed countries, the country's stable inflation and growth rate over the last decade has provided an environment that encourages businesses to become more active in social issues (Turkey Corporate Social Responsibility Baseline Report, 2008).

CSR activities in Turkey has increased due to the developments such as Turkey's bid for EU membership, formation of Corporate Governance Guidelines which bring the principles of CSR reporting for listed Companies of Borsa Istanbul (BIST), spread of international accreditation standards (ISO etc.). With all these developments, Turkey moves toward a more institutional model (Alakavuklar, Kılıçaslan& Öztürk, 2009). International companies operating in Turkey also have an positive effect on CSR practices in Turkey. They affected their local cooperators and suppliers in a positive way.

The implementation of these CSR layers differ from country to country. Socio-cultural environment, political system, education, labor system and level of economic development influence the implementation of CSR. In some countries, economic responsibilities get the most emphasis while ethical and philantrophic responsibilities are given second priority. As a developing country, Turkey has taken important step about corporate social responsibility and sustainability practices. The concept of CSR does not have a long history in Turkey. However, in recent years, corporations

in Turkey, shows more and more interest in environmental protection, reducing energy costs, gender equality and educational problems.

In the related literature there are various studies focusing on different sectors like energy, food, transportation, automobiles, media, communication etc. (Sweeney & Couglan, 2008; Küçük-Yılmaz, 2008; Hartman, 2011; Torres et.al., 2012). These studies emphasize the difference CSR practices in different sectors. They also emphasize that being socially responsible means different things in different sectors. The nature of the social and economic environment of an organization affects the nature of CSR practices. Different sectors have their own key drivers, motivating principles that making differences (Visser, 2008). They also have different regulative, normative and cognitive characteristics (Saraç et al., 2017). All sectors face different pressures and social issues, this impacts CSR practices (Hond et.al, 2007). For instance some sectors like energy, industrials, textiles etc. are dependent on natural resources and have more environmental pressure since they have an important effect on pollution, deforestation, biological degradation, natural resource scarcity etc. Besides human rights, child labor and workers' rights issues can be more important for other sectors. The cosmetic sector can be more related to animal tests. These focal points reveal the need for detailed sectoral research on CSR practices. Therefore, the aim of this chapter is to understand the nature of CSR practices in different sectors in Turkey.

METHODOLOGY

There is confusion in business environment about the definition of CSR, therefore the implementation of CSR may vary depending upon the different sectors. As mentioned before, acting socially responsible means different things in different sectors. Under this context, the meaning, goals, and outputs of CSR should be addressed and communicated in depth with other social actors, with a high degree of involvement from the business community, in order for CSR to be put into practice more effectively. This chapter aims to uncover the CSR understanding and implementation of corporations from different sectors. Sample of the study is consisted of 5 companies from different sectors such as energy,retail, electric electronic, mobile telecommunications, automobiles & parts. These companies are selected from Capital Most Powerful 500 Corporations List. All of the companies are in the first 20 companies according to the list. CSR activities of these companies have been taken from corporate web sites of these companies, corporate social responsibility platform web site, which is open to all businesses, and Corporate Responsibility Reports. The data derived from the websites analyzed with content analysis. The main dimensions are the profile of the corporate, concept of the project, targeted

groups, availability to the consumers, availability of sustainability reports, motivating principles employed by the corporations, and cooperation with the other stakeholders and NGO's.

Corporate web sites and corporate responsibility reports of the organizations especially constitute the research unit of the analysis. Organizations use web sites to communicate with their stakeholders. Web sites have several features for organizations. Visitors to a company's website may be assumed to have an active interest in the company. (Akgöz & Engin, 2016). Web sites also can be used to collect information, get feedbacks and monitor public opinion on some issues. Thanks to web sites, organizations have a medium to speak to different publics and focus on the unique needs of several audiences. As technology advances, more and more consumers reach organizations through their web sites and it gives organizations a chance to express themselves and give detailed information about their identity. Hence, major organizations have their own web sites and through their web sites they display their CSR activities.

The companies involved in this study were selected from Capital Most Powerful 500 corporations list (https://www.capital.com.tr/listeler/capital-500). From latest ranking, 5 companies are selected. The reason of this selection is that all of the companies share their CSR activities regularly and it is easy to access these activities. The companies have operations in different sectors; energy, electric electronic, automotive, retail and mobile communications. The revenues of corporations vary from 11 billion to 20 billion Turkish Liras (TL). In the frame of this study, CSR practices of the corporations are examined in order to investigate the concept and category of the project, targeted groups, and availability of CSR practices by consumers and motivating principles employed by the corporations.

Energy Sector

Opet

Opet Petrolcülük A.Ş. operates in retail sales, commercial and industrial fuels, mineral oils, storage, and international trade. It was established in 1992 and has grown steadily and continuously since then to become Turkey's second largest fuel distributor. With nearly 800 staff, 1,400 stations, including its Sunpet brand, and five terminals with a total storage capacity of 1,049,580 m3, the company offers superior goods and services to its customers in Turkey.

Opet considers being respectful of the environment, culture, and laws while achieving its goals, as well as maintaining customer loyalty

by continuously improving its product and service quality, to be its fundamental values. Opet is increasing its market share in the sector and expanding its station network with each passing day thanks to its realist vision and sustainable growth understanding.

Opet included "Social Responsibility" to its web site. It conveys comprehensive information about "Social Responsibility Principles" and "Social Responsibility Projects" under two different titles. Health, Safety and Environmental policy is also included in the web site. Opet declares its mission as to meet the needs of consumers, staff, and shareholders by being respectful of individuals and society, faithful to the law, economy, and moral values, and conscious of health, safety, and the environment in the industries in which it operates. The values like transparency, honesty, being respectful for environment, creativity, innovation, constantly improving the employees, being aware of the social dynamics also emphasized in the web site. Opet continues its social responsibility projects in line with these values (Opet, 2018).

Opet takes environment in consideration while they plan their operations. Besides it manages its operations incompliance with ISO 14001 Environmental Management System. It also publishes its Environmental performance values in its Sustainability Report. It is also stated in their web site that it only works with licensed companies for waste recycling and disposal and collects its plastic/metal/paper waste in different boxes and contributes to recycling process. The company also states that it recycles the rain water with the help of closed system. They recycled % 65 of waste water in their facilities. In order to use resources efficiently, the company keeps in touch with technological improvements to decrease its energy and water consumption (Opet, 2018).

As concerns health and safety the company notifies that it gives "human" element highest priority. It operates in compliance with OHSAS 18001 Occupational Health & Safety Advisory Services.

On Opet's website, it can be seen that the company carried out important social responsibility projects. Some of them still continue while the others completed. 'Clean Toilet' campaign aims to raising social awareness on hygiene and cleanliness and it has been running since 2000. It has been one of the longest term social projects in Turkey. This campaign won several awards by Nature Warriors Environmental Organization and Turkish Employer Unions Confederation (Opet, 2018).

This project has brought sub-initiatives in line with the needs of society. In 2003, the "My Clean School Project" was implemented in all schools under the direction of the Istanbul Directorate of National Education, and all schools were inspected by OPET perfection envoys

and OPET education teams. With training courses held across Turkey, the organization has served over 7,5 million individuals. In 2010, OPET entered into partnership with Turkish State Railways (TCDD). Its core objective is widening the scope of the project. With this aim, the project was implemented to terminals, stations and trains by TCDD under the name of "Cleanness is on the rails". All TCDD employees were trained as part of this initiative. Under the supervision of OPET, toilets in terminals, stations, and trains, as well as the area of stations and terminals, were rendered clean and sanitary.

To compensate for the environmental impact generated by its operations, OPET started 'Green Road' project in 2004 in collaboration with TEMA and The General Directorate of Highways. The project still continues. The project actualized with the "To lose green is to lose life" motto. It aims to raise awareness regarding desertification of the earth and dangers of living in arid environment in the possible future.

In 2005, OPET started a new project called Exemplary Village project with the objective of creating conscious society. The company addressed the social, economic, cultural and environmental development of distant villages. It aims self-sufficiency for villages utilizing historical and cultural potentials. To contribute the social and cultural developments of the inhabitants, vocational courses were organized in the issues of cooking techniques, table manner, English language, service standards, communication with tourists etc.

To offer a solution to another important problem in Turkey, in 2015 "Traffic Detectives" project started with the support of Ministry of Family and Social Policies and Ministry of Interior Affairs. The target group of the project are children and youth between the ages of 3-17. The main objective of the project is to reduce death caused by traffic accidents and also draw attention to these accidents. Within this scope, the project reached 1.500.000 children and youth and conducted raising awareness activities in the issues of traffic signs, safety belt, child protection systems, pedestrian crossing etc. (Opet, 2015).

OPET tries to create general solutions for the problems of the society through these projects. Ayşenur Aydın, Corporate Relations Manager states, "We exhibited a sensitive approach towards the economic and cultural needs of the society, and we showed our differences by using our resources in areas that will imply large social consequences". Aydın continues by saying that "innovation is an inseparable part of our corporate culture and business model. (……..) We analyze the needs of the future in order to ensure the sustainability of our projects" (Opet, 2015).

OPET especially targets children and youth, the adults of the future, and it declares that it invests in future by taking into consideration next generation.

Electric Electronic Sector

Arçelik

Arçelik, a subsidiary of KOÇ Holding, was established in 1955 and operates in the consumer durables and consumer electronics sectors, with manufacturing, marketing, and after-sales support services.. With 30,000 staff and 18 manufacturing plants in seven countries (Turkey, Romania, Russia, China, South Africa, Thailand and Pakistan), the organization provides goods and services in 145 countries around the world with its 11 brands (Arçelik, Beko, Grundig, Blomberg, Elektrabregenz, Arctic, Leisure, Flavel, Defy, Altus and Dawlance). The business was named one of the world's top nine companies and received the "Ökovision Sustainability Leadership Award" from Ökoworld, one of Europe's most reputable funds focused solely on sustainable operations. Arçelik is committed to acting in line with the Sustainable Development Goals (SDG) published by the United Nations in 2015. Arçelik aims to promote 9 global targets as part of these goals, which serve as a roadmap for businesses. Quality education, gender equity, safe water and sanitation, sustainable and clean energy, decent work and economic development, manufacturing, creativity, and infrastructure, responsible consumption and production, climate change, and cooperation for the goals are some of the objectives.

Acting with sustainable development approach, Arçelik published its 10th sustainability report in 2017. Management approach, talent management, responsible production and consumption, research and growth, innovation and digitalization, sustainability management in value chain, and social development are among the topics covered in the report. In this report, it is stated that the company will continue to improve its sustainability performance and its initiatives help address global problems. The main objective of its works is to help create sustainable living and this responsibility shapes its work. Hakan Bulgurlu, Arçelik's CEO, says "we analyse the social and environmental impact of our business from climate change to (….) urbanized population" (Arçelik, 2017).

Arçelik's website contains a wealth of information about its compliance with various requirements as well as its positive impact on society. Under the headings of social responsibility, detailed information about education project and culture, arts and sports sponsorships are included. The principles and policies related to climate change, products and production, GHG emission, energy efficiency, environmental friendly

products and projects that realized are given under the headings of "sustainable life". Putting the environmental considerations on its focus, the company realized various projects such as "TEMA 10 Billion Oak Campaign", "Our Environment is Clean", "Erosion Documentary", "NTV Green Screen Project Sponsorship" and "Energy Efficiency Project". All of these projects aims to raise public awareness on environmental problems. Related to climate change, Arçelik, has Climate Change Coordination Working Group (CCC WG). This group is responsible to integrate climate change efforts and ensures that all efforts comply to the company's strategy and policy. Arçelik became a member of the climate platform in 2011. The company participated several work groups related to climate change in Lima (2014) and Paris (2015) to represent Turkey. It also made commitments to "Paris Pledge for Action" of Cambridge University and "Responsible Corporate Engagement Policy" of "Road to Paris 2015 Project (Arçelik, 2018).

With the its new vision "Respects the Globe, Respected Globally", Arçelik performs its business operations in line with "sustainability" approach. The organization began implementing the ISO 14001 Environmental Management System Standard in 1996. It was accredited by an independent international body in 2012 for its operations in Turkey to handle and use energy efficiently in compliance with ISO 50001 Energy Management System Standard. It is also a member of International Chamber of Commerce and Turkish Sustainable Development Association.

Arçelik also gives importance to gender equality. It is one of the signatories of UN Women Empowerment principles in 2017. In its sustainability report, it is stated that to promote equality and avoid gender discourse, it aims to leverage technology. It introduced "Equal dictionary" project with the motto of "tongue slips, dictionary equals" (Arçelik, 2017).

The company also supports various cultural and artistic activities. It has sponsored various festivals (Eskişehir Arts and Culture Festival), music albums (İdil Biret – famous pianist, Şefika Kutluer-famous flute player), documentaries (Turkish Economic History Documentary), exhibition (Leonardo: Universal Genius).

The company carries out all these projects regarding expectations of all stakeholders. It designs and implements initiatives to raise social expectations and remove obstacles to sustainable development with the aim of global leadership and productive growth.

Mobile Communication Sector

Turkcell

Turkcell is a Turkish-owned integrated communication and technology services business that offers audio, video, television, and value-added individual and corporate services over mobile and land networks. The company provides services to a total of 50.1 million customers in a total of 9 countries including Turkey, Ukraine, Belarus, Northern Cyprus, Germany, Kazakhstan, Georgia, Moldova and Azerbaijan. It has a total of 31.6 billion TL in assets throughout the world. Turkcell's shares have been on both the NYSE and BIST stock exchange since 2000. The company is the only Turkish company listed on the New York Stock Exchange. Since 2014, it has also been included in the BIST Sustainability Index (Turkcell, 2016).

Turkcell defines corporate responsibility as an approach integrated with its operations rather than just philantrophic activities. In its sustainability report (2016), the company emphasizes the role of tele communication sector as an important leverage for achieving equal opportunity for people living in both urban and rural areas. Ahmet Akça, Chairman of the Board of Directors, highlights that "we as the telecommunication sector are in the position of being able to guide technological process, digitalization and innovation and create a multiplier effect for the other sectors and societies". Being aware of this reality, Turkcell tries to carry out its responsibilities in this regard. Creating common values for all stakeholders in all operations, it questions how it can access more people and creates more impact.

On Turkcell's website, there is a lot of information about the company's profile, goods and services, jobs and human resources, economic action, social action, environmental action, and public relations. Turkcell has specific section that are devoted to corporate responsibility and denominated as "corporate social responsibility" on the web site. Under this heading, the company disseminates information about its projects on different issues like education, entrepreneurship, women empowerment, the global goals, support for disadvantageous group and sustainability. Its sponsorships and campaigns also took part in this section. According to the company's website, the company's view of social responsibility is based on its sense of responsibility to shareholders, consumers, staff, vendors, non-governmental organisations, colleges, and the social stakeholders that media has developed (Turkcell, 2018).

Turkcell publishes its annual sustainability report on its corporate website. The report includes the corporate profile, its economic impact, social impact and environmental impact. The report is prepared by reference

to the international reporting standard, the Global Reporting Initative (GRI) G4 sustainability reporting principles. Within the corporate profile section, corporate governance, code of conduct and ethical principles and sustainability parts took part. The company places transparent, honest and accountable operations at the center of its way of doing business. In 2016, it created the donations policy which was approved by board decision. Donations policy organizes the voluntary support of activities that are beneficial to the community in the fields of education, health, culture-arts, sports, technology and reintegrating disabled individuals into the community for the purpose of responding to public needs and contributing to the development of Turkey with a social and corporate responsibility approach (Turkcell, 2016).

The company carried out various social responsibility projects on different issues. To support the educational activities and to develop the quality of education "Whiz Kidz", " Developers of the Future", and "Snowdrops" projects carried out. Turkcell developed special laboratories aimed at technical efficiency as part of the Whiz Kids initiative, channeling the "builder" community in science and art centers (BİLSEM), where especially talented students from seven regions of Turkey received post-school project-based training. The project started in 2006 and realized under the charge of Ministry of Education. It targeted the talented students who show a high level of performance compared to their peers in one or more of the subjects like intelligence and creativity.

The company unveiled the "Developers of the Future" initiative in 2013, with the aim of bringing together university students, individual software developers, and experienced software developers, or anyone currently employed in application development. The main goal is to assist 50.000 mobile application developers in receiving technical training and developing apps, commercializing those applications, and ultimately increasing skilled human capital for both themselves and their ecosystem.

Turkcell launched the "Women Empowerment in Social Life" program in 2012 to improve the roles of women in social life. The program realized with the cooperation of the Turkish Foundation for Waste Reduction (TİSVA). 150 thousand women with low income have been reached and helped them achieve their dreams. This project realized with the notion of empowering everyone regardless of age, gender, disability, race etc. It aims to make everyone participate in social, economic and politic life.

Snowdrops (Kardelenler) is the other important project carried out by the company with the support of NGO, ÇYDD. It aimed to support the education of young and underprivileged girls. The project provided

scholarships to 29.000 girls. The program not only supported the girls, it also aimed to improve the lives of their families (Turkcell, 2016).

Turkcell also employ 500 disabled individuals within call centers structure. Its goal is to allow disabled people to participate fully in modern professional life by providing them with opportunities for training and career advancement, as well as equal rights. The company started the "No Barriers" program in 2015 with the cooperation of the Ministry of Education to provide support for the education of disabled children. The technology and vocational education classrooms created in the scope of the project were designed according to the needs of disabled kids and have been equipped with special equipment.

The environmental strategy and policy also included in the company's corporate website. When this approach analyzed, the rights of future generations comes to forefront. Turkcell adopts and implements environmental policies social responsibility awareness. It is the first mobile operator in Turkey to be ISO 50001 Energy Management System Standard and ISO 14064 Accounting and Verification Of Corporate Greenhouse Gas Emissions certified. The company also focuses on water consumption and waste management. It declares making efforts to reduce paper and printer in in its buildings and separates paper, plastic and domestic waste. It also aims to disseminate environmental awareness to its customers by encouraging the use of e-bills and SMS bills to reduce the use of paper and carbon emissions (Turkcell, 2018).

Within the scope of all the social responsibility projects, Turkcell seems to take responsibility for the development of society and targets all the people.

Automotive Sector

Doğuş Otomotiv

Doğuş Otomotiv was founded in 1994. With approximately 2,500 employees, it is a major player in the Turkish automotive industry. According to corporate credibility polls, it is one of Turkey's most respected and valued brands. Douş Otomotiv has the most diverse brand portfolio in the market, as well as the largest service network in Turkey. As the representative of 12 foreign brands, each of which is a market leader in its own category, including passenger cars, light commercial vehicles, heavy vehicles, automotive and marine engines, and cooling systems, Doğuş otomotiv provides a diverse brand range to its customers and corporate clients, including Volkswagen passenger cars, Volkswagen

commercial vehicles, Audi, Seat, Skoda, Bentley, Lamborghini, Bugatti, Porsche, and Scania, with a total product portfolio of over 85 models.

Doğuş Otomotiv has been publishing Corporate Sustainability Reports that follow the GRI Sustainability Reporting Guidelines since 2009. It has issued its ninth report covering 2017. Since 2015, the company has disclosed its sustainability performance in a dedicated section of its corporate website at www.dogusotomotiv.com.tr. Its sustainability reports also included on the web site and by this way all of the stakeholders can access easily to the reports.

In the last report, the company highlighted its corporate sustainability approach as being aware of all of the company's success depends on the health and safety of its employees, the continuity of efficient and honest cooperation with all business partners and its contributions as a community to a healthier environment. With this approach, the company integrates social, environmental and economic risks and opportunities into all business processes across its entire operations (DoğuşOtomotiv, 2017). Code of ethics and policies related business ethics also included in the report.

Since 2009, Doğuş Otomotiv has built its corporate sustainability strategy on the basis of stakeholder engagement. The company therefore believes in the importance of collaborating with various organizations in determining its social, environmental and economic priorities and driving its performance in these areas further.

In the environmental responsibility section, the company mentions the efforts making to reduce energy consumption, water consumption and waste management. It continued its efforts for reducing energy consumption in line with its environmental responsibility policy in 2017. As of September 2017, it has started to work on improving energy efficiency in partnership with a 3rd party energy manager with the aim of taking actions according to monthly energy efficiency reports and creating energy saving areas. For the waste management, the company works with the organizations like ÇEVKO (Environmental Protection and Packaging Waste Recovery and Recycling Fundation), PETDER (Turkish Oil Industry Association), and AKÜDER (Association of Accumulator and Recycling Industrialists). The company also realizes awareness raising activities for its employees. In 2017, Mercan Yurdakuler Uluergin, writer, gave a seminar on "Non-toxic homes, Non-toxic lives" to raise environmental awareness among the employees. Other environmental awareness raising activities included the "Born Environmentalist" project, carried out by the employees hired as part of the new graduate recruitment program (Doğuş Otomotiv, 2017).

The policies related to human rights, safety and health of the employees, diversity and equal opportunities also took part in the last report. Doğuş Otomotiv was one of the first businesses to announce a mother-infant policy in 2010, and it complies with all laws and regulations relating to female jobs in order to become a working mother-friendly organization. The organization is one of the active and leading members of the 'Equality at Work Platform,' developed within the context of the World Economic Forum's 'Closing the Gender Gap Program,' with the aim of encouraging women's participation in economic life. Within the scope of the equality at work project, so far it provided 5,408 hours of coaching and mentoring training with the participation of 90 women manager candidates with the coaching and mentoring programs created for female employees.

Doğuş Otomotiv also focuses on community engagement activities. Within the scope of these activities, "traffic for life" platform is created. The platform conducts activities aimed at improving the attitudes and habits of people of all ages about traffic safety, raising community awareness, and increasing awareness among various target segments. The project was named among the top 10 CSR projects in the best CSR survey by Capital Magazine.

On its corporate web site, social responsibility activities are given under the headings of "Sustainability". It has sub headings; sustainability reports, governance, risk management and ethics, economic responsibility, environment, employees, human rights, community engagement and product and service responsibility. The company's social responsibility activities cover most of the corners of CSR. By publishing sustainability reports and making them visible and accessible for its stakeholders, the company points out that how it is successful CSR policies has helped it to be the retail leader in the market (Doğuş otomotiv, 2018).

Retail Sector

Migros

Migros offers a complete grocery and general merchandise selection in a single store. It offers modern, reliable and high quality service to its customers compatible with the principles of transparency and accountability since 1954. The company expanded its market share further and kept its fast growth with the acquisition of the modern retailer KİPA on March 1st, 2017. Migros is the first and only retailer in Turkey to be listed in the Borsa Istanbul Sustainability Index (BIS) for four years in a row. This index assesses companies in terms of their contribution to combating climate change, efficient use of natural resources, business health and safety, corporate governance etc.

In 2017, the company received the "CDP Turkey Climate Leaders" award for the second time. CDP is the most well-known international initiative for reporting greenhouse gas emissions. The company was also listed in the FTSE4 Good Emerging Markets Sustainability Index for the second time in a row.

Migros published its second sustainability report in 2017. This report reflects and assesses its sustainability performance in 2017 and sets goals for the future. In the report, Migros has identified its key stakeholders as customers, employees, shareholders, investors, suppliers and business partners, government agencies and legislators. The report, which adheres to the Global Reporting Initiative (GRI) Standards, aims to inform all stakeholders about the company's economic, environmental, and social performance. Throughout the whole report, the importance of its stakeholders is emphasized. The company is committed to creating value for its stakeholders and set its development goals with the sense of responsibility regarding the society, economy and environment. It identified its key topics related to sustainability by the demand of its stakeholders, these topics include reliability, public health, product safety, access to product and services, dialogue with stakeholders and environmental impact. For instance in terms of environmental impact, the company commits to reduce electricity consumption, carbon emissions, and water consumption (Migros, 2017).

Code of ethics and Anti-Bribery and Anti-Corruption policy also has a place in the report. In 2017, Migros received the Most Ethical Companies of Turkey award for the fourth consecutive year in ETİKA Turkey Ethics Awards.

Migros is a member various non-governmental organizations and forums. It collaborates with these organizations in terms of sustainability, environmental protection and consumer protection. These organizations include, ÇEVKO (Environmental Protection And Packaging Waste Utilization Foundation), CGF(Consumer Goods Forum), TURMEPA (Marine Environment Protection Association), TEİD (The Ethics And Reputation Society, And GGD (Food Safety Association).

The company's sustainability strategy considers environmental, social, and economic factors, and all of its operations are measured against national and international key performance indicators. It established a sustainability committee with the participation of senior managers representing the main functions of the company. The committee works for the management, monitoring and execution of sustainability projects (Migros, 2017).

The company also committed itself to providing its employees with a safe, healthy and secure working environment, standing against human rights violations, taking a stand against child labor.

In addition to these commitments, the company is focused on making the healthiest, most reliable, and best quality products accessible at the best prices through both physical and digital platforms. It has started to donate food to social markets and food banks through its "Respecting Food Project" and it has sent 138,095 meals to the people in need in a very short time period. By selling food that is close to its expiry date at a discount, it saved food corresponding to the revenue of 3 Migros stores only in 2017.

Family Clubs is another community development project realized by Migros. Within the scpe of project, the company bring people together, especially women, who would like to participate in free vocational and personal development courses 12 locations in 9 cities. These Clubs has reached 36,200 people since it was established to the end of 2017. The Family Clubs also focuses on the development of children. It offers courses like chess, painting and guitar for children.

The first retail store in Turkey to receive LEED Gold certification is Migros Bodrum Maya Migros, which was designed in compliance with LEED (Leadership in Energy and Environmental Design) requirements. The Alaçatı Macrocenter store was also awarded a LEED Gold Certificate in the category of Operations and Maintenance. (Migros, 2017).

Lots of information about all these projects also can be found on the company's corporate web site under the heading "sustainability" (Migros, 2018).

Dıscussıon and Conclusıon

Social responsibility projects are important means for the companies to be used as a public relations strategy to satisfy the needs of society. By using technology companies have an opportunity to communicate with public and disseminate their activities. It is possible to communicate corporate responsibility messages to stakeholders by using different communication tools such as advertisements, social reports and corporate web sites.

This study aims to understand the nature of CSR practices in different sectors in Turkey. 5 companies from different sectors were chosen and analyzed in terms of the content of their CSR activities, availability of these activities by their stakeholders, reporting activities, targeted groups and motivating principles employed by the companies.

Unsurprisingly, there is not any sector being affected by the expectation of society to be act responsibly in all operations. Even so, the characteristic of the sector could affect the nature of CSR activities realized by company. While a company mostly focuses on their environmental impact, the other can focus on the issue like food safety. In other words, the characteristics of a sector differentiate the norms and required CSR activities among different sectors (Saraç et. al, 2016).

From the analyzed CSR activities, it can be concluded that all of the companies consider CSR as a public relation practice. In other words, these activities are instruments of corporate reputation management and brand building practices. All of the companies transformed CSR activities into larger projects with the participation of senior manager and reached too many people.

All of the five companies have an extensive CSR report. Arçelik is the company with the longest history of implementing what it is called as CSR now. Its first sustainability report published in 2007. From this year, Arçelik has published the report regularly every year. Doğuş Otomotive and Opet are the ones that emphasizing the work for better future in their reports' cover as "Running to the Future" (OPET) and "Inherently a Better future" (Doğuş Otomotiv). Migros published its first report in 2016. The current report is the company's second report. It is the least extensive one among the other companies. All of the companies placed sustainability reports on their corporate web sites. All of the companies prepared their reports using GRI guidelines. It means the report is verified by a third party.

All of the companies are transparent about their policies and operations. They indicated this principle under the heading "Our principles" and mentioned transparency and accountability are the main principles they adopted. Only Turkcell did not mention these principles in its last report. However, the company's all operations are accessible by its stakeholders. It is important for a company to be transparent in order to uphold sustainability standards. Especially Arçelik gives an importance to these principles and believes that leading multi-stakeholder initiatives to be an important part of its sustainability approach and supported this by realizing Arçelik Suppliers Business Transparency Project (BTP) with The Global Reporting Initiative.

In terms of stakeholders dialogue and engagements, it can be easily seen that all of the companies communicated with their stakeholders and established cooperation with them. Arçelik and Turkcell defined their stakeholders as all individuals and institutions influenced by or have an impact on corporate operations. The stakeholders has been listed as

customers, employees, suppliers, shareholders and investors, public agencies, NGO's, International Associations, Trade Unions, Media and social media and universities. All of the companies valued their stakeholders expectations and placed their communication with them in their reports as "stakeholder engagement", "stakeholder dialogue", "stakeholder communication". As it is expected cooperation with NGO's and public bodies are common in the companies CSR activities.

The content of CSR activities is also analyzed within the scope of this chapter. It can be concluded that education, health and environment tend to attract more CST initiatives regardless of the sector. Culture-art projects have strong connection with educational processes. Related to their sectors, Opet and Doğuş Otomotiv are the only ones that realized a project on Traffic Rules and safety. Once again related to its sector, Migros is the only company carried out a project related food safety and food sharing. Unfortunately, it is also the only one having a project about animals. Turkcell and Migros are both realized activities for the benefits of disabled people. (Accessible store project (Migros) and No Barriers project (Turkcell)). Arçelik and Turkcell placed special emphasis on gender equality and empowerment of women and carried out projects on these issues. Being aware of its responsibility related to technology use, Turkcell is the only one that combines technology with its projects. All of the companies stated that they do not tolerate child labor and any human rights discrimination. Besides, all of them sponsored music festivals, sport activities and cultural activities. Occupational health and safety is also the most common issue valued by all companies. Opet is the only company having an interest in hygiene, gender equality, history, environment and safety in traffic.

When it comes to the motivations for CSR activities of the companies, the companies mentioned creating sustainable living, meeting stakeholders expectations and creating common value for everyone in society. They identified their activities as a solution to the problems of society.

As it seen sectoral differences did not affect a company's CSR initiatives. There is only a slight difference between companies' main interests. Companies in different sectors may have same concerns and interests in terms of their CSR activities. Based on these analyses, it is possible to say that sector specific factors do not seem to be decisive on CSR activities of companies.

Companies in Turkey seems to perform CSR activities in order to maintain their legitimacy and also gain reputation. But they also value their stakeholders and care for their sustainable and healthy living. This chapter aims to analyze CST activities in Turkey in terms of different

sectors. It can be summarized that sectoral differences do not have a strong impact on companies' activities. 5 companies from different sectors that are listed in the Capital most powerful corporations list (all of them are listed in the first 20 companies) are analyzed in terms of content of their CSR activities. In the future sample size should be expanded and also different sectors can be included to the scope of study.

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Chapter 17

PREDICTORS OF UTILIZATION OF DENTAL CARE SERVICES AND COST BARRIERS TO DENTAL CARE

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1. Introduction

The study of health care utilization is of great importance to reduce inequities in health outcomes. Specifically, dental care has become an increasingly significant phenomenon as dental caries might have a negative impact on the quality of life of individuals (Guney et al., 2018). The behavioral model proposed by Andersen (1995) has been applied in the dental care context (Andersen, 1995; Guiney et al., 2011; Pizarro et al., 2009).

Andersen's (1995) behavioral model argues that some aspects such as predisposing, enabling, and need factors need to be considered in explaining the utilization of health care services (Andersen, 1995). Predisposing factors consist of demographic characteristics such as age, gender, and marital status. Predisposing factors also include information on social structure such as employment status, household size, and educational attainment. Furthermore, enabling factors are composed of health insurance and income. Finally, need factors are related to one's perceived or evaluated health, such as overall health status and activity limitation.

The Turkish health care system has undergone many improvements since 2003 with the introduction of the Health Transformation Program (HTP). The HTP aimed to provide better health care access to everyone, reduce inequities in health outcomes, and improve financial protection for all individuals (Atun et al., 2013). Prior to the HTP, individuals had to obtain oral and dental health care services from private dentists by making out-of-pocket health expenditures. There were 16,371 dentists registered in 2002 in Turkey. However, only about 20% of them were employed in Ministry of Health affiliated hospitals and centers. Furthermore, there was also an inadequate supply of dental units in Turkey at the time, which were 1,071 units in 2002.

The HTP introduced both demand and supply-side interventions in the health system of Turkey. A demand-side intervention in this process was to expand insurance coverage for the Green Card program, which is a non-contributory social health insurance scheme for the poor. As a result of this expansion, the Green Card insurance covered tooth extraction and dental prosthesis free of charge. A supply-side intervention was to introduce a campaign in 2005, named "At least one oral and dental care center to each province," and the last center was opened in Şırnak province in 2008. Another demand-side intervention was to expand the Green Card insurance coverage to include dental filling and canal treatment in 2010 without making any payment.

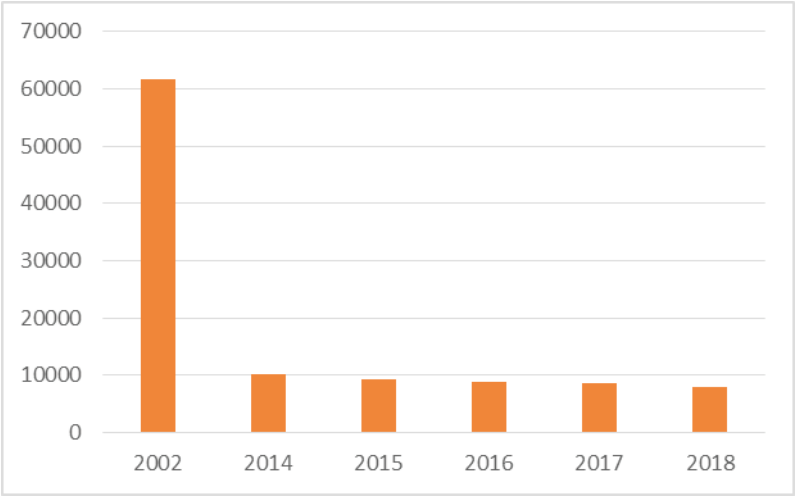

Figure 1: Population per dental care units, Ministry of Health
Source: Health Statistics Annuals, Ministry of Health

Figure 1 illustrates the change in the number of populations per dental unit across the country by years. From 2002 to 2014, there is a sharp decline by 84% in the population per dental care unit dedicated to supply-side interventions in this period.

In this study, we identify the predictors of utilization of dental care services in Turkey over a long period by applying Andersen's (1995) behavioral model (Andersen, 1995). We also shed light on the predictors for avoiding a dental professional in the past year due to cost. To the best of our knowledge, this is the first study that investigates the predictors of and difficulties in obtaining dental care services covering more than 10 years before and after the HTP.

2. Related Literature

Guiney et al. (2011) studied the determinants of dental care utilization in Ireland (Guiney et al., 2011). They used a 2007 cross-sectional survey conducted on 10,364 individuals and implemented a multivariate logistic regression model to investigate the predictors of utilizing dental care services by gender. Their findings showed that for both genders, the common predictors of visiting a dentist in the past year were educational attainment, residence location, higher income, use of a car, and brushing frequently.

Thompson et al. (2014) investigated the dental treatment needs of individuals in Canada reporting cost issues when reaching dental care services (Thompson et al., 2014). They utilized 2007/2009 Canadian

Health Survey administered to 5,586 individuals aged 6 to 79 to examine the predictors of cost barriers by implementing logistic regression methods. According to their findings, those who reported cost barriers in accessing dental care services indicated poorer oral health conditions than their counterparts.

Ikenwilo (2013) examined the impact of free dental check-ups on the utilization of dental check-ups by using a nationally representative dataset in Scotland by implementing a difference-in-differences analysis (Ikenwilo, 2013). Their findings indicated a 3-4% increase in free dental check-ups in Scotland in comparison to the rest of the UK.

Şahin and İlgün (2018) studied the efficiency of dental care services by implementing a Data Envelopment Analysis method. Their unit of analysis was all hospitals and dental centers affiliated with the Ministry of Health across 81 provinces in Turkey. According to their findings, when the CCR method is used, 18 provinces were efficient. However, when the BCC option was chosen, 32 provinces became efficient. Based on these results, there were statistical differences between efficient and inefficient provinces with respect to input and output variables (Şahin & İlgün, 2018).

Furthermore, Kesim et al. (2016) examined the link between obesity and oral health status for 6-17 years old children and adolescents in Turkey by implementing multiple binary logistic regressions. To measure the oral health status of the sample, they used some index measures such as Community Periodontal Index (CPI) and a number of decayed, missing, and filled teeth in the permanent dentition (DMFT) and deciduous dentition (dmft) and found that dental status is correlated with obesity (Kesim et al., 2016).

Bozdemir et al. (2016) investigated the relationship between oral health and general health status and medication utilization among elderly aged 60 and above in Isparta province in Turkey. According to their findings, patients about 84% of the patients had poor oral hygiene, and the mean DMFT score was 19.1 for the sample. Besides, the prevalence of systemic diseases was high among the sample. They concluded that dentists need to consider patients' disease and medication background while making dental interventions (Bozdemir et al., 2016).

Onur et al. (2020) evaluated the relationship between the prevalence of dental caries and its associated risk factors for children in Edirne in Turkey. Their dataset consists of 704 children aged 7-to-12 years old. To understand the dental caries status of children, they used DMFT and DMFS indices in their analysis. After the examination or treatment, a questionnaire related to kids' oral hygiene habit and diet history were conducted to their parents. Their findings reported 69% of dental caries

prevalence. They found that dental caries are related to mothers' and fathers' education levels, family income, and gender.

Moreover, Li et al. (2018) studied inequality in the context of dental care service utilization by Chinese middle-aged and senior adults (Li et al., 2018). They used a longitudinal dataset for the study and a concentration index to quantify the magnitude of inequality in dental care services. They employed a decomposition method to root the determinants of inequality such as living standards, need, and non-need variables. They reported that the probability of using dental care services by the better-off is higher than the worse-off. They also found that inequality grew between the better-off and the worse-off in dental care service utilization.

Hosseinpoor et al. (2012) reviewed 52 countries to gauge the socioeconomic inequality in oral health care coverage using data from the World Health Survey (Hosseinpoor et al., 2012). They analyzed the period 2002-2004 by examining 60,332 individuals aged 18 years or older. According to their findings, most countries reported pro-rich inequality in terms of oral health care coverage. Furthermore, the degree of inequality in lower-income countries was higher than that of high-income countries.

3. Data and Methods

We obtain the data for this paper from the Turkey Health Surveys (THS), a nationally representative and cross-sectional survey of individuals in Turkey since 2008. Surveys are conducted biennially by the Turkish Statistical Institute (TurkStat) since 2008 using face-to-face interviews with adults aged 15 years or over. Interviewed households have been chosen from a sample based on the Address-Based Population Registration System. Moreover, the questionnaire was conducted by professional interviewers in the respondents' houses.

Questionnaires also include information regarding respondents' age groups, employment status, gender, household size, educational attainment, marital status, and household income level. The 2008 and 2010 surveys cover more than 14,000 individuals each, and more than 28,000 individuals are included in the 2012 survey. While more than 19,000 observations occurred in the 2014 survey, more than 17,000 observations occurred in the 2016 survey. Finally, the 2019 survey includes more than 17,000 observations.

We have two dependent variables in this study. The first one is whether the interviewed person received service from a dentist, a dichotomous variable taking the value 1 if the respondent visited a dentist in the last 12 months and 0 if visited more than 12 months. For this outcome variable, we can study the years 2008 through 2019. The question elicited dental

care utilization in the past year, "When was the last time you received service from a dentist for yourself?" The other dependent variable that we utilize in this study is related to the forgone treatment of dental care due to payment difficulty, which was elicited by the question, "In the last 12 months, have you ever needed dental care that you could not receive due to payment issues?" The outcome variable here is a discrete variable that takes a value of 1 if the person gave up a dental treatment due to payment difficulties in the last 12 months although she needed it and 0 otherwise.

Table 1 reports descriptive statistics for the sample. 35% of the sample visited a dental professional in the last 12 months. Avoiding dental professionals due to cost barriers was 13% in our sample. Furthermore, 55% of our sample is composed of females, and 38% are employed. 94% of the sample was insured, and 62% had a good and very good health condition. While 12% reports activity limitation in our sample, 64% stated that they had no activity limitation.

Table 1. Descriptive statistics

	(1)	(2)
	Mean	SD
Dental care utilization in the last 12 months	0.347	0.476
Avoiding a dental professional in the last 12 months due to cost	0.134	0.341
Age groups		
15-24	0.178	0.382
25-34	0.195	0.396
35-44	0.198	0.398
45-54	0.173	0.378
55-64	0.129	0.335
65-74	0.080	0.271
75+	0.048	0.214
Educational level		
Illiterate	0.162	0.368
Primary	0.360	0.480
Middle school	0.173	0.378
HS or similar	0.184	0.387
Undergraduate or Graduate	0.121	0.327
Marital Status		
Single	0.218	0.413
Married	0.690	0.462
Divorced	0.025	0.156
Widowed	0.067	0.249
Female	0.548	0.498
Employed	0.378	0.485
Household size	3.574	1.757
Log income	7.217	0.737

Insured	0.935	0.247
Health status		
Very good	0.103	0.304
Good	0.516	0.500
Moderate	0.275	0.446
Bad	0.093	0.290
Very bad	0.013	0.115
Presence of an activity limitation		
Seriously limited	0.117	0.321
Not seriously limited	0.244	0.430
Not limited	0.639	0.480
N	110612	

Mean coefficients; standard deviations in second column.

The behavioral model proposed by Andersen (1995) has been applied in dental contexts such as Kiyak (1986) and Pizarro et al. (2009), which models dental care utilization as a function of predisposing, enabling, and need factors. For example, predisposing factors are listed as gender, age, marital status, education, occupation, and the number of individuals in the household. Furthermore, enabling factors are related to one's ability to reach health care services such as health insurance and income. Need factors include the individual's health status.

Following Andersen's (1995) behavioral model, we select the covariates used in our multivariate analysis. We include demographic factors such as age, gender, and marital status and social factors such as employment status, household size, educational attainment as predisposing factors in the analysis. Besides, we add the level of income and health insurance status of individuals as enabling factors. Since we do not have the need factors such as the number of teeth remaining, perceived oral health, and wear of complete or partial dentures due to data limitation, instead, we include individuals' health status in our analysis. Health status is measured by five categories such as very good (reference category), good, moderate, bad, and very bad. Our analyses also control year dummies since our data was collected over the years to control how our outcome variables change over time. We also include 26 regional dummies in our analysis since there could be unobserved changes in different regions, which must be considered.

In this study, we examined two outcomes: first, we evaluated the predictors of dental health care utilization following the behavioral model suggested by Andersen (1995). Second, we looked at the determinants of avoiding dental treatment due to financial reasons. To analyze the predictors of dental care utilization and forgone dental treatment due to financial issues, we apply a standard probit model by which we provide

coefficient estimates and marginal effects of covariates. Having described the details of our data and the empirical method used, we present the estimation results in the following subsection.

4. Results

To examine the predisposing, enabling, and need factors on dental care utilization, we provide the coefficients and marginal effects of a standard probit regression in Table 2. The marginal effects in column 2 indicate a negative correlation between age and dental care utilization. In other words, dental care service utilization declines with age relative to younger cohorts, which may indicate younger individuals care more about their teeth health. Results suggest no indications of correlations between some predisposing factors such as employment status and the number of people in the household, and dental care utilization. Moreover, people with higher education are more likely to utilize dental health care services. While married individuals do not show a significant relationship with dental care services, divorced individuals are likely to use more dental care, single being the reference category. Interestingly, widowed individuals show a negative correlation with dental care utilization relative to single people, although the coefficient is significant at a 10% level, indicating that widowed individuals experience some difficulties in reaching dental care. Female individuals are more likely to have visited the dentist in the past 12 months than male individuals by about 3 percentage points more likely.

We also shed light on the relationship between the need factors such as health status and an activity limitation, and dental care utilization. The probit marginal effects in column 2 suggest that dental care utilization increases as individuals' health deteriorate. Besides, if the person reports no activity limitation, their dental care utilization declines relative to those with serious activity limitation.

Enabling factors, including household income and individuals' insurance status, are positively and significantly related to more dental care utilization. The magnitudes of the correlations suggest that insurance is more critical than income to consume dental health care services.

We control year dummies in our regression analysis to see changes over time in dental care utilization. Compared to 2008, probit marginal effects in column 2 of Table 2 suggest that dental service utilization has been increased since 2014 through 2019, which is important because these are the years after the Health Transformation Program implemented between 2003 and 2013 in Turkey.

Table 2. Predictors of utilization of dental care services, 2008/2019

	(1) Coefficients	(2) Marginal Effects
Predisposing factors		
Age groups		
15-24	Ref.	Ref.
25-34	0.005	0.002
	(0.019)	(0.007)
35-44	-0.065***	-0.025***
	(0.020)	(0.008)
45-54	-0.154***	-0.057***
	(0.022)	(0.008)
55-64	-0.255***	-0.093***
	(0.023)	(0.009)
65-74	-0.384***	-0.135***
	(0.027)	(0.009)
75+	-0.644***	-0.211***
	(0.033)	(0.010)
Employed	-0.016	-0.006
	(0.011)	(0.004)
Female	0.080***	0.029***
	(0.010)	(0.003)
Household size	0.004	0.002
	(0.003)	(0.001)
Educational level		
Illiterate	Ref.	Ref.
Primary	0.063***	0.022***
	(0.015)	(0.005)
Middle school	0.133***	0.047***
	(0.019)	(0.007)
HS or similar	0.199***	0.071***
	(0.019)	(0.007)
Undergraduate or higher	0.330***	0.120***
	(0.021)	(0.008)
Marital Status		
Single	Ref.	Ref.
Married	0.021	0.008
	(0.016)	(0.006)
Divorced	0.069**	0.025**
	(0.030)	(0.011)
Widowed	-0.044*	-0.015*
	(0.026)	(0.009)
Need factors		
Health status		
Very good	Ref.	Ref.

Good	0.046***	0.016***
	(0.016)	(0.005)
Moderate	0.128***	0.046***
	(0.018)	(0.006)
Bad	0.124***	0.044***
	(0.024)	(0.009)
Very bad	-0.027	-0.009
	(0.044)	(0.015)
Presence of an activity limitation		
Seriously limited	Ref.	Ref.
Not seriously limited	-0.020	-0.007
	(0.017)	(0.006)
Not limited	-0.087***	-0.031***
	(0.018)	(0.006)
Enabling factors		
Log income	0.060***	0.021***
	(0.009)	(0.003)
Insured	0.137***	0.049***
	(0.020)	(0.007)
Year dummies		
year=2008	Ref.	Ref.
year=2010	-0.028	-0.010
	(0.019)	(0.007)
year=2012	-0.003	-0.001
	(0.017)	(0.006)
year=2014	0.139***	0.050***
	(0.018)	(0.006)
year=2016	0.106***	0.038***
	(0.019)	(0.007)
year=2019	0.138***	0.050***
	(0.021)	(0.008)
N	95858	95858

Standard errors in parentheses. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. *We cluster standard errors at the household level.*

To investigate avoiding dental treatment due to cost barriers, we provide the results of a standard probit regression in Table 3. Respondents aged 25 to 44 reported avoiding a dental care professional in the past year due to cost. Respondents aged 55 to 75 reported fewer difficulties in obtaining dental care due to cost. Employed individuals and females reported foregoing dental treatment because of financial difficulties. Those with undergraduate or more degrees report avoiding dental care less often compared to illiterate individuals.

Interestingly, married, divorced, and widowed respondents report avoiding dental care more often due to cost. Since we do not know individuals' oral health status, we use overall health status instead. Our findings here indicate that those with less good health are more likely to report avoiding dental care due to financial difficulties. There is a negative and significant correlation between avoiding dental care and income and insurance status. In other words, insured people and those with higher income are less likely to forego a dental treatment when needed it. The magnitudes of the correlation suggest that insurance has more impact relative to income.

Table 3. Predictors for avoiding a dental professional in the past year due to cost, 2014/2019

	(1) Coefficients	(2) Marginal Effects
Age groups		
15-24	Ref.	Ref.
25-34	0.102***	0.021***
	(0.037)	(0.007)
35-44	0.137***	0.028***
	(0.039)	(0.008)
45-54	0.037	0.007
	(0.042)	(0.008)
55-64	-0.161***	-0.029***
	(0.046)	(0.009)
65-74	-0.409***	-0.065***
	(0.055)	(0.009)
75+	-0.624***	-0.088***
	(0.066)	(0.009)
Employed	0.050**	0.010**
	(0.020)	(0.004)
Female	0.102***	0.021***
	(0.037)	(0.007)
Educational level		
Illiterate	Ref.	Ref.
Primary	-0.011	-0.002
	(0.028)	(0.005)
Middle school	-0.051	-0.010
	(0.035)	(0.007)

HS or similar	-0.070**	-0.013*
	(0.035)	(0.007)
Undergraduate or higher	-0.126***	-0.023***
	(0.041)	(0.008)
Marital Status		
Single	Ref.	Ref.
Married	0.140***	0.025***
	(0.033)	(0.006)
Divorced	0.246***	0.047***
	(0.052)	(0.010)
Widowed	0.130**	0.023**
	(0.051)	(0.009)
Health status		
Very good	Ref.	Ref.
Good	0.204***	0.030***
	(0.037)	(0.005)
Moderate	0.489***	0.084***
	(0.039)	(0.006)
Bad	0.657***	0.124***
	(0.045)	(0.008)
Very bad	0.979***	0.214***
	(0.067)	(0.018)
Log income	-0.324***	-0.061***
	(0.017)	(0.003)
Insured	-0.427***	-0.081***
	(0.038)	(0.007)
Year dummies		
year=2014	Ref.	Ref.
year=2016	-0.203***	-0.037***
	(0.025)	(0.005)
year=2019	0.008	0.002
	(0.027)	(0.005)
N	45280	45280

Standard errors in parentheses. * *p < .1,* ** *p < .05,* *** *p < .01. We cluster standard errors at the household level.*

We also investigated year dummies to look at changes over time regarding cost barriers to dental care. In 2016, people reported avoiding dental care less often compared to 2014. However, the impact does not seem to be continuing until 2019.

5. Discussion

Turkey implemented the HTP to improve its citizens' health outcomes and reduce inequities in access to health care services. To assess the importance of the HTP, in this study, we have examined the determinants of dental care utilization and forgone treatment in dental care services due to cost barriers. We also looked at the dental care utilization and forgone dental treatment due to cost issues over time. Specifically, we applied Andersen's (1994) behavioral model to understand predisposing, enabling, and need factors on dental care utilization. We used a nationally representative rich dataset by combining repeated cross-sections of Turkey's Health Surveys, covering the period from 2008 through 2019. Our analysis covered the period from 2014 to 2019 due to a lack of data for earlier years for cost barriers to dental care treatment.

Looking at predisposing factors, we have found that older people are less likely to use dental care services in the past year than 15-24 years old. The magnitudes of marginal effects reported a higher probability of less utilization as age increases. Our results are consistent with the findings of Pizarro et al. (2020), which states that 65 years or older people had less likely to visit a dental professional in the last year (Pizarro et al., 2009). As another predisposing factor, being employed did not seem to be a significant determinant of dental care utilization in the past 12 months.

Furthermore, females were more likely to have visited a dental professional in the last year, which is consistent with the current literature (Fernández-Mayoralas et al., 2000; Mumcu et al., 2004; Pizarro et al., 2009). According to some studies, women are more prone to utilize any kind of health care services, and in the case of dental care services, it is no different (Cleary et al., 1982; Verbrugge, 1985). The likely channels for females using more health services are hormonal differences or social roles (Graham, 1993; Pitts & Phillips, 2002).

Educated people are more capable of utilizing dental care services. Compared to illiterate individuals, those with higher education were more likely to have used dental care services in the past year, consistent with the current literature (Guiney et al., 2011). For example, Mumcu et al. (2004) found that education is a significant predictor of dental care utilization (Mumcu et al., 2004). In addition, Mayoralas et al. (2000) argued that people with a higher level of education are predisposed to use dental care services.

Following Andersen's (1995) behavioral model, we choose health status and activity limitation as need factors in our analysis (Andersen, 1995). Our findings showed that worsening health conditions were associated with higher utilization of dental care services. Activity

limitation seems to have a positive and significant impact on dental service utilization as in other studies (Pizarro et al., 2009).

Regarding enabling factors, higher income and being insured led to higher utilization of dental services in the past year. Among of which, having insurance was more important than higher income in using dental care. The magnitude of marginal effects indicates a 5-percentage point increase in insured individuals' dental care utilization compared to uninsured. Mumcu et al. (2004) found no evidence of a relationship between health insurance and dental visit in the last year (Mumcu et al., 2004). Pizarro et al. (2009) found evidence of a correlation between double health insurance and dental care service utilization in Spain (Pizarro et al., 2009). Finally, by looking at year dummies, compared to 2008, between 2014 and 2019, people were more likely to have visited a dental professional, which shows better access to dental services in Turkey over the studied period.

Reducing the financial barrier to dental care would improve the oral health of the society, and further damage to teeth would be avoided (Locker et al., 2011; Ramraj & Quinonez, 2013). In this study, we also aimed to analyze predictors for avoiding dental treatment in the past year when needed due to cost barriers. 25-44 years old seems to have financial barriers in access to dental care and forego dental treatment compared to 15-24 years old. Older adults (55-75 years old or above) were less likely to report avoiding a dentist than younger cohorts. Further, people with undergraduate or higher education reported less likelihood of cost barriers. In the questionnaire, we do not have information about one's dental health status. Instead, we utilized the general health status of individuals as a proxy measure to dental status. Findings indicated evidence of a positive and significant correlation between bad health and cost barriers to forgone dental treatment, which is consistent with the literature (Thompson et al., 2014). The magnitude of marginal effects for those with very bad health conditions indicated a 21-percentage point increase in forgone treatment due to financial barriers. In addition, income and social insurance are good predictors of less forgone dental treatment. Magnitudes of marginal effects reported negative and statistically significant association a 6 and 8 percentage points, respectively. Also, year dummies indicated a decline in forgone dental treatment due to cost in 2016, a 4-percentage point. However, in 2019, the effect faded away.

Our study has some limitations. We did not have a longitudinal dataset to observe the same individual over time to remove the individual level unobserved fixed effects. However, our cross-sectional dataset covers a long period of about 13 years, which makes the study important. Also, we do not have information about respondents' dental health status.

Therefore, we had to use general health status and activity limitation as proxies in the analysis.

Notwithstanding limitations, our results covering the period after the HTP would provide lessons for Turkey and similar countries that are in the way to introduce health reforms. We especially found that while Turkey successfully provided dental care treatment to its citizens after the HTP, there is still room to improve cost barriers to dental care in the country. Our findings showed that insurance was an effective tool to reduce cost barriers to dental care. Therefore, focusing on offering insurance to everyone may help to alleviate the foregone dental treatment.

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Chapter 18

INVESTIGATING THE VALIDITY OF POLLUTION HAVEN HYPOTHESIS FOR TURKEY FOR THE ERA OF 1970-2016[1]

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1 The study has been derived from the Master Thesis, written in Turkish and called "The Relationship Between Foreign Direct Investment and CO2 Emissions: The Case of Turkey (1974-2010)", which was submitted by Gözde Yılmaz under the Supervision of Assoc. Prof. Dr. Murat Can Genç at Karadeniz Technical University.

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1. Introduction

By the disappearance of the economic borders through the globalization process, Foreign Direct Investment (FDI), which has been emerged as a driving force in economic development, attracted the attention of both developing and developed countries. In this regard, in order to benefit from the globalization outcomes such as development attempts in economic, social and technological arenas, the countries have started to compete with each other in terms of the policies and incentives towards FDI. However, due to the relatively weak bargaining powers of countries, especially the developing ones, compared to Multinational Companies (MNCs) such competition, which can be regarded as "race to the bottom", brought long-lasting hazards, such as environmental pollution, to the economies.

Although, the environmental pollution issue, which was a result of rapid industrialization, has been in the agenda since the end of the 1970s, it got attention mostly by the globalization in the 1990s which accelerated the industrialization process. In this regard, it is maintained that a considerable amount of greenhouse gases (CO2, CH4, N2O, HFC, PFC, SF6), which were caused by industrial sector, led to global warming by creating a greenhouse effect in the atmosphere and caused environmental problems in a global scale rather than local one. Such increased greenhouse gases, which have caused to long-term climate change, accepted as one of the most important challenges facing humanity in the development process, sea level rise, increased temperatures, forest degradation, biodiversity loss, desertification and more extreme weather conditions, do not show any signs of improvement. In this regard, the industrialized countries, which are also the home countries of the most of the FDI, have been accused of over-exploiting the resources of both their own countries and the other countries due to their consumption, production and pollution facilities leading to threaten the future of the world. So, the demand for clean environment has increased especially in the developed countries by the governments and international organizations. Therefore, in the developed countries a serious increase in the number and imposition of environmental regulations has been observed. In this regard, such "dirty" industries, which got more costly due to such legal regulations, in the developed countries started to look for new areas to shelter, like developing countries, since they had relatively low environmental sensitivity and weak environmental regulations by ignoring "pollution issue" with the aim of development or catch up the developed countries. In the literature, the act of relocation of the dirty industries from developed countries to developing ones is referred to "pollution haven hypothesis".

This study aims to investigate the validity of such "pollution haven hypothesis" through a new approach, Residual Augmented Ordinary Least Squares Engle and Granger (RALS-EG) Cointegration Test Approach, which is maintained as more successful than the conventional cointegration tests, for Turkey for the era of 1970-2016. In order to reach the aim, the study is organized as follows. After the introduction part, a brief literature review is tackled and then the Methodology part including the Model and Data, Unit Root Tests and RALS-EG Cointegration Test is handled before the conclusion part.

2. Literature Review

The relationship between FDI and CO2 emissions has been analyzed by many studies in the economics literature, which is summarized in the following Table 1. In this regard, some of these studies have detected a positive impact of FDI on CO2 emissions as argued in "Pollution Haven Hypothesis", by conducting cointegration and causality tests. On the other hand, some of them have proved that there is a negative effect of FDI on CO2 emission, as argued in "Pollution Halo Hypothesis". In this regard, it is maintained that FDI inflows to host countries tend to decrease the level of CO2 emissions thanks to the fact that FDI has brought eco-friendly advanced production technologies into the host countries. The relationship between FDI and CO2 emissions seems controversial in literature.

According to Table 1, it can be said that the "Pollution Haven Hypothesis", the positive impact of FDI on CO2 emissions, has been tested by many studies in the literature. In this regard, these studies in the literature have generally employed time series analyses using cointegration and causality tests. On the other hand, the negative impact of CO2 emissions on FDI, the "Pollution Halo Hypothesis", has also been detected by some other studies. However, it has not been found out any study conducted RALS-EG approach for Turkey in literature. In this regard, it can be said that the study with its analysis for Turkey by a new approach tries to fill the relevant gap in the literature.

Table 1: Summary of the Empirical Studies Examining the Relationship between FDI and CO2 Emissions in Literature

Authors	Countries	Methods	Period	Results
Hoffmann *et al.* (2005)	112 Countries	Panel Granger Causality Tests	1971-1999	The Pollution Haven Hypothesis is valid for Middle Income countries.
Cole and Elliott	US, Brazil and Mexico	Panel Fixed Effects	1989–1994	The Pollution Haven Hypothesis is valid.

He (2006)	China's 29 Provinces	Panel GMM Estimations	1994–2001	The Pollution Haven Hypothesis is valid.
Merican *et al.* (2007)	5 ASEAN Countries	ARDL Bound Test Approach	1976-2002	The Pollution Haven Hypothesis is valid for Malaysia, Thailand and Philippines. The Pollution Halo Hypothesis is valid for Singapore.
Tamazian *et al.* (2009)	BRIC Countries	Panel Random Effects	1992–2004	The Pollution Halo Hypothesis is valid.
Halicioglu (2009)	Turkey	ARDL Bound Test Approach	1960-2005	The Pollution Haven Hypothesis is valid.
Acharyya (2009)	India	Engle and Granger Cointegration Test	1980-2003	The Pollution Haven Hypothesis is valid.
Jorgenson (2009)	30 Less Developed Countries	Panel Regressions	1980–2000	The Pollution Haven Hypothesis is valid.
Lee (2009)	Malaysia	ARDL Bound Test Approach and Granger Causality Test	1970-2000	The Pollution Haven Hypothesis is valid.
Pao and Tsai (2011)	BRIC Countries	Panel Pedroni Cointegration and Panel Granger Causality Tests	1980-2007	The Pollution Haven Hypothesis is valid.
Atici (2012)	ASEAN Countries	Panel Fixed and Random Effects	1997-2006	The Pollution Haven Hypothesis is not valid.
Al-mulali (2012)	12 Middle Eastern Countries	Panel Pedroni Cointegration and Panel Granger Causality Tests	1990-2009	The Pollution Haven Hypothesis is valid.
Al-mulali and Tang (2013)	GCC Countries	Panel Pedroni Cointegration and Panel Granger Causality Tests	1980-2009	The Pollution Halo Hypothesis is valid.
Blanco *et al*. (2013)	18 Latin American Countries	Panel Granger Causality Test	1980-2007	The Pollution Haven Hypothesis is valid.
Chandran and Tang (2013)	ASEAN-5 Economies	Johansen Cointegration Test and VECM	1971-2018	The Pollution Haven Hypothesis is valid.
Lee (2013)	19 Nations of the G20	Panel Fixed Effects	1971-2009	The Pollution Haven Hypothesis is not valid.
Lee and Brahmasrene (2013)	European Union Countries	Panel Pedroni and Kao Cointegration Tests and Panel Driscoll–Kraay Estimation	1988-2009	The Pollution Halo Hypothesis is valid.

Asghari (2013)	6 MENA Countries	Panel Fixed and Random Effects	1980-2011	The Pollution Halo Hypothesis is valid.
Dick and Jorgenson (2014)	44 Countries	Cross-National Ordinary Least Squares		The Pollution Haven Hypothesis is valid.
Sbia *et al.* (2014)	United Arab Emirates	ARDL Bound Test Approach and VECM	1975Q1–2011Q4	The Pollution Haven Hypothesis is not valid.
Lau *et al*. (2014)	Malaysia	ARDL Bound Test Approach VECM Granger Causality Test	1970-2008	The Pollution Haven Hypothesis is valid.
Kivyiro and Arminen (2014)	6 Sub-Saharan African Countries	ARDL Bound Test Approach VECM Granger Causality Test	1971-2009	The Pollution Haven Hypothesis is valid for Kenya and Zimbabwe. The Pollution Halo Hypothesis is valid for DRC and South Africa.
Jiang (2015)	China's 28 Provinces	Panel Fixed Effects	1997–2012	The Pollution Haven Hypothesis is valid.
Tang and Tan (2015)	Vietnam	Johansen Cointegration Test and VECM	1976-2009	The Pollution Haven Hypothesis is valid.
Shahbaz *et al.* (2015)	99 High, Middle and Low Income Countries	Panel Pedroni and Johansen Fisher Cointegration Tests and Dumitrescu and Hurlin Causality Test	1975-2012	The Pollution Halo Hypothesis is valid (High Income Countries). The Pollution Haven Hypothesis is valid (Middle and Low Income Countries).
Seker *et al*. (2015)	Turkey	ARDL Bound Test Approach, Hatemi-J Cointegration VECM Granger Causality	1974-2010	The Pollution Haven Hypothesis is valid.
Hao and Liu (2015)	China's 29 Provinces	Panel Fixed Effects and Panel GMM Estimations	1995-2011	The Pollution Halo Hypothesis is valid.
Gokmenoglu and Taspinar (2016)	Turkey	ARDL Bound Test Approach and Toda and Yamamoto Causality Test	1974-2010	The Pollution Haven Hypothesis is valid.
Zhang and Zhou (2016)	29 Chinese Provinces	Panel Pedroni and Kao Cointegration Tests and Panel Regressions	1995-2010	The Pollution Halo Hypothesis is valid.
Mert and Boluk (2016)	21 Kyoto Countries	Panel Pedroni Cointegration Test, PMG Estimations and VECM Granger Causality	2002-2010	The Pollution Halo Hypothesis is valid.

Baek (2016)	5 ASEAN Countries	Panel Pedroni Cointegration Test, PMG Estimations	1981-2010	The Pollution Haven Hypothesis is valid.
Salahuddin *et al.* (2018)	Kuwait	ARDL Bound Test Approach and VECM Granger Causality Test	1980-2013	The Pollution Haven Hypothesis is valid.
Behera and Dash (2017)	17 South and Southeast Asian Countries	Panel Pedroni Cointegration Test, PMG Estimation and VECM Granger Causality	1980–2012	The Pollution Haven Hypothesis is valid.
Bakhsh *et al*. (2017)	Pakistan	Simultaneous Equation Model	1980-2014	The Pollution Haven Hypothesis is valid.
Ozturk (2017)	9 Latin American Countries	Panel Pedroni Cointegration, Pooled Seemingly Unrelated Regression, VECM Granger Causality	1975-2013	The Pollution Haven Hypothesis is valid.
Paramati *et al.* (2017)	G20 Countries	Fisher Johansen and Westerlund Cointegration Tests, FMOLS Estimation and Dumitrescu Hurlin Panel Causality Tests	1991-2012	The Pollution Halo Hypothesis is valid.
Koçak and Şarkgüneşi (2018)	Turkey	Maki cointegration test, Stock and Watson DOLS and Hacker and Hatemi-J Causality Test	1974-2013	The Pollution Haven Hypothesis is valid.
Rahman *et al.* (2019)	Pakistan	Nonlinear ARDL Approach	1975-2016	The Pollution Haven Hypothesis is valid.
Shao *et al*. (2019)	BRIC and MINT Countries	Johansen Fisher Cointegration test, Panel FMOLS and VECM Granger Causality	1982-2014	The Pollution Haven Hypothesis is not valid.
Balsalobre-Lorente *et al*. (2019)	MINT Countries	Panel Pedroni and Kao Cointegrations Tests and Panel FMOLS and DOLS Estimations	1990–2013	The Pollution Haven and Halo Hypotheses are valid.
Destek and Okumus (2019)	Ten Newly Industrialized Countries	Panel Westerlund Cointegration Test and Panel Correlated Effect (CCE) Estimator	1982-2013	The Pollution Haven and Halo Hypotheses are not valid.

Sarkodie *et al.* (2020)	47 Sub-Saharan African Countries	Panel Pedroni, Kao and Westerlund Cointegration Tests and Panel Dynamic Heterogeneous Parameter Model	1990-2017	The Pollution Haven Hypothesis is valid.
Assamoi *et al.* (2020)	Cote d'Ivoire	ARDL Bound Test Approach and Johansen Cointegration	1980–2014	The Pollution Haven Hypothesis is valid.
Guzel and Okumus (2020)	ASEAN-5 Countries	Panel CCEMG and AMG Estimations	1981–2014	The Pollution Haven Hypothesis is valid.
Khan and Ozturk (2020)	17 Asian Countries	Pedroni and Johansen Fisher Panel Cointegrations and Panel FMOLS Estimations	1980-2014	The Pollution Haven Hypothesis is valid.
Caglar (2020)	9 countries	Bootstrap ARDL Approach and Bootstrap Granger Causality	1970-2014	The Pollution Haven Hypothesis is valid for India and Morocco.
Yilanci *et al.* (2020)	BRICS Countries	Fourier ARDL Cointegration Test	1982-2014	The Pollution Haven Hypothesis is valid for India. The Pollution Halo Hypothesis is valid for China.
Xie *et al.* (2020)	Emerging Economies	Generalized Panel Smooth Transition Regression Model	2005-2015	The Pollution Haven and Halo Hypotheses are valid.
Omri and Tarek (2020)	23 Emerging Economies	Panel GMM Estimations	1996-2014	The Pollution Haven Hypothesis is valid.

3. Methodology

3.1. Model and Data

This study examines the relationship between CO2 and FDI in Turkey with annual data from 1970 to 2016 due to the data limitation regarding CO2 emissions. The empirical model used in this study can be described as follows:

$$lnCO_{2t} = \beta + \gamma lnFDI_t + \varepsilon_t \quad (1)$$

Where CO2 is the Carbon Dioxide Emissions and FDI is Foreign Direct Investment Inflows. γ, which denotes the coefficient of FDI variable,

is expected to be positive. Therefore, it is expected that a rise in FDI inflows results in higher carbon dioxide emissions. In this regard, it can be said that if coefficient of FDI is positively estimated, then it means that "pollution haven hypothesis" is valid for Turkish economy. CO2 and FDI series have been obtained from the World Bank's Development Indicators online database, which is available on http://www.worldbank.org.

The natural logarithms of all variables are considered. Table 2 below contains descriptions of the Variables in the context of their Symbols, Definitions, Scales and Sources.

Table 2: The Descriptions of the Variables

Symbols	Definitions	Scales	Sources
$\ln CO_2$	The natural logarithm of Carbon Dioxide Emissions	The natural logarithm	World Bank's Development Indicators http://www.worldbank.org
lnFDI	The natural logarithm of the Foreign Direct Investment Inflows	The natural logarithm	World Bank's Development Indicators http://www.worldbank.org

3.2. Unit Root Tests

In time series analyses, it is firstly determined that whether the series have a unit root or not since the estimation using non-stationary series can have spurious regression problem. In this respect, the reliability of the findings obtained from conventional unit root tests ignoring structural breaks is controversial. Unit root tests, which take structural breaks into account, were first discussed in the literature by Perron (1989). This test allows for an externally defined structural break. Zivot and Andrews (1992) have developed a test procedure that suggests that structural breaks may be endogenous rather than exogenous. Lumsdaine and Papell (1997) have suggested a test that allows two structural breaks in the series. Among the unit root tests, Fourier KPSS test was developed by Becker, Enders and Lee (2006), suggesting that there is no need to determine the number and location of structural breaks using fourier functions. The procedure by Becker, Enders and Lee (2006) begins with the estimation of the Equation (2) presented below.

$$y_t = \alpha + \gamma_1 \sin\left(\frac{2\pi kt}{T}\right) + \gamma_2 cos\left(\frac{2\pi kt}{T}\right) + e_t \qquad (2)$$

In the Equation (2) above, the notations of π, k, t and T denotes pi number, frequency value, trend and observation number, respectively. By estimating Equation (2) through the ordinary least squares method for the

frequency values from 1 to 5, the optimal frequency value is determined by the minimum value of the Sum of Squared Residuals (SSR) that is obtained from the estimations. The statistically significance of trigonometric terms are determined by F test. If F test is significant and Fourier KPSS test is insignificant then conventional KPSS test is conducted (Becker, Enders and Lee, 2006: 391). The group significance of the trigonometric terms in the estimations is determined according to the F statistics, which is presented below.

$$F_{\tau}(k) = \frac{(SSR_0 - SSR_1(k))/2}{(SSR_1(k)/(T-q)} \tag{3}$$

In the Equation (3) above, the notations of τ, SSR_1, SSR_0, T and q denote the model with constant, the Sum of Squared Residuals of the Equation (2) that is estimated by ordinary least square method for the k optimal frequency, the Sum of Squared Residuals of the Equation (2) that is estimated by the ordinary least square method without trigonometric terms, observation number and the number of variables, respectively. If the calculated F statistics is bigger than the Table Critical Values of Becker, Enders and Lee (2006:389) then it is agreed on that the trigonometric terms are statistically significant and the Fourier KPSS test is valid. Fourier KPSS test is done by conducting conventional KPSS test to error terms that are obtained from Equation (1). If the F statistics is not statistically significant then the conventional KPSS test is relevant. In this respect, the Fourier ADF test which is developed by Christopoulos and Leon-Ledesma (2010) also works with the same procedure. The only difference of Fourier ADF test from the Fourier KPSS test has been the conducting conventional ADF test to error terms that are obtained from Equation (2).

3.3. Residual Augmented Ordinary Least Squares Engle and Granger Cointegration Test

In the study, "pollution haven hypothesis" is tested for the era of 1970-2016. FDI and CO_2 emission series were determined from WDI data base. The stationary levels of the series are investigated by the Fourier ADF and conventional ADF Unit Root Tests. In the study, in order to determine the long term relationship of the series Engle and Granger Cointegration test based on Residual Augmented Ordinary Least Squares (RALS E-G), which is developed by Lee *et al.* (2015) in order to utilize information about non-normal errors that they think it has been ignored in the literature, is conducted. This is due to it is accepted as "more powerful than the usual cointegration tests that do not utilize information on non-normal errors" (Lee *et al,* 2015). In this regard, the difference of RALS E-G from the Engle and Granger (1987) is the fact that the equation in

which the existence of cointegration is agreed on is estimated by residual augmented ordinary least squares developed by Im and Schmidt (2008) rather than the ordinary least squares method. It starts with the estimation of the following equation:

$$Y_t=\alpha_0+\alpha_1 X_t+\varepsilon_t \quad (4)$$

The Equation (4) is estimated by the ordinary least squares method first. By using the residuals that have been obtained the existence of cointegration is investigated through the following Equation (5).

$$\Delta\hat{\varepsilon}_t = \mu_0 + \mu_1\hat{\varepsilon}_{t-1} + \sum_{i=1}^{n}\pi_i\hat{\varepsilon}_{t-i} + u_t \quad (5)$$

The Equation (5) is estimated by the ordinary least squares method. By using the residuals that have been obtained from this estimation, the Equation (5) is augmented by the term that has been indicated in the following Equation (6).

$$\widehat{w}_t = h(\hat{u}_t) - \widehat{K} - \hat{u}_t\widehat{D}_t, \quad t=1,2,3,\ldots,T \quad (6)$$

In the Equation (6);

$$h(\hat{u}_t) = [\hat{u}_t^2, \hat{u}_t^3]', \widehat{K} = \frac{1}{T}\sum_{i=1}^{T} h(\hat{u}_t) \text{ and } \widehat{D}_t = \frac{1}{T}\sum_{i=1}^{T} h'(\hat{u}_t)$$

Moreover, the term $\widehat{w}_t$ can be indicated as shown in the following Equation (7)

$$\widehat{w}_t = [\hat{u}_t^2 - m_2, \hat{u}_t^3 - m_3 - 3m_2\hat{u}_t]' \quad (7)$$

In the Equation (7);

$$m_2 = \frac{1}{T}\sum_{t=1}^{T}\hat{u}_t^2 \text{ and } m_3 = \frac{1}{T}\sum_{t=1}^{T}\hat{u}_t^3$$

The cointegration is tested through the Equation (8), which is constituted by adding the term $\widehat{w}_t$ to the Equation (5).

$$\Delta\hat{\varepsilon}_t = \mu_0 + \mu_1\hat{\varepsilon}_{t-1} + \sum_{i=1}^{n}\pi_i\hat{\varepsilon}_{t-i} + \widehat{w}_t'\gamma + e_t \quad (8)$$

The Equation (8) is estimated by the ordinary least squares method and then the t statistics of the coefficient of $\hat{\varepsilon}_{t-1}$ variable is compared

with the critical value of the relevant Table of Yilanci and Aydin (2018) (Yilanci and Aydin, 2018:105-106).

4. Empirical Findings and Their Interpretation

In the study, Fourier ADF Test which is developed by Christopoulos and Leon-Ledesma (2010) and conventional ADF Test are used in order to determine the stationary of the series. The results of the Fourier ADF and conventional ADF Tests are presented in Table 3.

Table 3: *Fourier ADF and ADF Unit Root Test Results*

Series	Min SSR	k	Fourier ADF	F(k)	ADF
lnFDI	77.67634	1	-1.939469 (0)	45.67411[a]	-0.476133 (1)
lnCO2	7.016559	1	-0.249276 (4)	31.46315[a]	-2.018103 (0)
ΔlnFDI	22.00524	3	-10.08381[a] (0)	0.491324	-9.600251[a] (2)
ΔlnCO2	0.098321	4	-7.083173[a] (0)	3.396705	-6.265527[a] (0)

Notes: The superscript a denotes significance at the 1% critical level. The values in the parentheses denote the optimum lag lengths.

As seen in Table 3 the stationary of the series at their levels are determined according to Fourier ADF Test. This is due to the trigonometric terms are statistically significant according to F test. It is seen that both FDI and CO2 series have unit roots at their levels. The stationary of the series at their first differences are determined according to conventional ADF Test since the trigonometric terms are found statistically insignificant according to F test. According to the ADF test results, both FDI and CO2 series are stationary at their first differences. In this regard, RALS Engle-Granger test, which is developed by Lee *et al*. (2015), has been used for cointegration as a more powerful cointegration test that utilize information on non-normal errors. The findings are indicated in Table 4.

Table 4: *RALS Engle Granger-Cointegration Test Results*

	RALS-EG test statistics	n	P2	For Model with Intercept, Table Critical Values of Yilanci and Aydin (2018)		
				%1	%5	%10
CO2=f(FDI)	-3.342887[b]	0	0.9418	-3.91747	-3.33996	-3.00461

Notes: The superscript b denotes significance at the 5% critical level. P2 indicates the correlation between the error terms of the Equations (5) and (8).

As seen in Table 4, FDI and CO2 series are found cointegrated. Namely, the series move together in the long run. In order to find the impact of FDI on CO2 emissions Dynamic Ordinary Least Square (DOLS) and Fully Modified Ordinary Least Square (FMOLS) estimates are conducted. The findings obtained are presented in Table 5.

Table 5: *Long-Run Estimate Results*

	DOLS	**FMOLS**
Constant	6.918388[a] (0.364152)	6.740018[a] (0.395523)
FDI	0.247101[a] (0.017917)	0.254928[a] (0.019340)

Notes: The superscript a denotes significance at the 1% critical level. The values in the parentheses indicate the standard errors.

As seen in Table 5, according to the estimation results of Dynamic OLS when there is 1% increase in FDI then CO2 emissions increase by 0.25%, on average, and according to the estimation results of FMOLS when there is 1% increase in FDI then CO2 emissions increase by 0.26%, on average. Since the sign condition (plus) of FDI is satisfied and it is statistically significant at the 1 per cent level, then it has long-term effects on increasing the CO2 emissions. It can be concluded that the "pollution haven" hypothesis is valid for Turkey for the relevant era. In this regard, it can be said that all these are consistent with both the "pollution haven" literature telling that more investment in non-environment friendly conditions under the weak environment regulations produce more CO2 that is hazardous to environment and the relevant FDI characteristics of Turkey.

5. Conclusion

Since the study aims to investigate the validity of "pollution haven hypothesis" through a new approach, Rals-EG Cointegration Test Approach, for Turkey, it can be said that the aim was reached within the framework of the empirical findings. In this regard, the impact of FDI on CO2 emissions is found statistically significant and positive in the long run for the case of Turkey pointing to the pollution haven hypothesis.

All the findings of the study confirm both the "pollution haven" literature and the relevant FDI characteristics of Turkey for the relevant era. In this regard, it is noted that for the era of 1990-2010 most of the FDI in Turkey in terms of the entry mode of FDI realized as Brownfield FDI, namely, via cross-border Merger and Acquisitions (M&As), rather

than new FDI, namely, via Greenfield investment, on contrary of the rest of the developing world due to the mass privatizations especially after 2005 (Sarialioglu Hayali, 2012: 293-296). It can be said that such kind of FDI, which does not increase a new productive capacity and/or develop the existing technology in the host country by only leading to a change of ownership without adding to productive capacity or productivity especially compared to the "Greenfield investment", then it can be concluded that it is more likely to produce more CO2 through a non-environment friendly investment. Moreover, it can be said that for the era of 2011-2016 the entry mode of FDI totally differs from the previous era by also dominating the whole period of 1990-2016 since most of the FDI in Turkey in terms of the entry mode of FDI has realized as Greenfield FDI. However, when the empirical findings are considered it seems that it could not create the expected eco-friendly results in terms of CO2 emissions, too, contributing to the "pollution haven" hypothesis. Due to the available data regarding the entry mode of FDI begins with the year 1990 the evaluation can be done for the years after 1990, as a matter of fact it is known that before 1990 the FDI in Turkey was in low levels. It can be said that it is also an important starting point for the future studies about the issue and can be regarded as a contribution of the paper as highlighting the fact.

Last but not least, it can be said for especially policy measures, which should be taken by the policymakers, that it is not enough for FDI to be good in "development", it should be good in "sustainable development" pointing to the "pollution haven" issue. Otherwise, as in Turkish case it turns into a kind of "vicious circle" in which FDI increases CO2 and CO2 as a proxy of growth increases FDI, and at last it is likely that all the "circle" will collapse when the resources will end.

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Chapter 19

ARGUMENT FROM IGNORANCE FOR EXTERNAL WORLD SKEPTICISM

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Introduction

In this article, I evaluate the argument from ignorance for external world skepticism. I argue that the premise that we do not know that we are not in a global deception scenario is problematic. I discuss three strategies for the skeptic to defend this premise. I conclude that none of these strategies work and ultimately the argument from ignorance is not a good argument. It is either unsound or redundant; and, either way, it has no persuasive power.

The argument from ignorance for external world skepticism can be formulated as follows:

(1) If I know that p, then I know that not-D.

(2) I don't know that not-D.

Therefore,

(3) I don't know that p.

In the above argument, D is the proposition that a global deception scenario (henceforth GDS) such as being in a life-like dream, being deceived by an evil demon, being a brain in a vat, etc. is the case. If D is true, then we are globally deceived and what we perceive in the external world are not real. And, p is any proposition about the external world, such that if p is knowable at all, it is knowable by a method which involves sense perception.

This argument is deductively valid. Now let's examine the premises.

The first Premise of the Argument from Ignorance

(1) is based on an epistemic closure principle. According to this principle, knowledge is closed under known entailment: if I know that p and I know that p entails q, then I know that q. (In the consequent of this conditional it is assumed that I have the belief that q and in the remainder of the paper I will omit this detail).

We can rewrite (1) as an intermediary conclusion from two separate premises:

(1a) I know that if p then not-D.

(1b) If I know that p and I know that if p then not-D, then I know that not-D.

Therefore,

(1) If I know that p, then I know that not-D.

(1b) is an instance of the closure principle. Although denying this closure principle is an option, it is better to avoid this maneuver if we can have other reasons to reject the argument from ignorance, since closure principle is very intuitive and it is part of our ordinary practice. And I will argue that even if we grant the closure principle to the skeptic, the argument from ignorance is still not a good argument.

(1) follows from (1a) and (1b). (1b) is true according to the closure principle. However, according to Leite (2004) and Roush (2010), even if we grant the closure principle to the skeptic, it cannot do the work that the skeptic needs it to do. Roush and Leite argue that (1a) is not true, because p might be true even if D is also true. For example, let p be "I have hands." Even if I am in a GDS, I can still have hands: I can be a brain in a vat with hands seamlessly attached to me, or I can have a normal body and dreaming in my bed, or I can even be deceived by an evil demon and can still have hands. None of these scenarios entail that I don't have hands. So, I don't know that if p is the case then I am not in a GDS, and hence (1a) is false. On the other hand, if we modify the scenarios and add my handlessness to their descriptions, then p (my having hands) does entail that the modified GDS is not the case. Let's call that new kind of GDS that includes my handlessness in its description "handless-GDS" and the proposition that a handless-GDS is the case "HD." I know that if I have hands, then not-HD, by logical entailment from the description of a handless-GDS. But, then, all I know is this: If I have hands, then it is not the case that I don't have hands and not-D. This has the following structure: If p, then not-(not-p & q).

But, q is just a free-rider, since this is equivalent to: if p, then (p or not-q). So, if we want to make (1a) obviously true, all we can get is this:

(1a*) I know that if p then either p or not-D.

(1b*) If I know that p and I know that if p then either p or not-D, then I know that either p or not-D.

Therefore,

(1*) If I know that p, then I know that either p or not-D.

But, of course, if we replace (1) with (1*), then the argument from ignorance becomes invalid.

In short, the objection is this: (1a) is not true because p does not entail not-D. And, if we include not-p in the description of the D in order to create a logical entailment, then the resulting premise will be logically equivalent to (1a*) and we will not get (1) from it.

This objection, however, is not tenable. (1a) is true, and p does entail not-D. To see this, let's look at Moore's *Proof of an External World*. He concludes that he is not in a GDS from the fact that he has hands. But, he also concludes that he has hands from a prior premise:

I can prove now, for instance, that two human hands exist. How? By holding up my two hands, and saying, as I make a certain gesture with the right hand, 'Here is one hand', and adding, as I make a certain gesture with the left, 'and here is another'. (1959: 166)

So, his argument is:

(M1) Here is a hand (combined with a certain gesture with the right hand) and here is another hand (combined with a certain gesture with the left hand)

Therefore,

(M2) I have hands

Therefore,

(M3) (Given that hands are material things) material things exist (and hence, D is not the case)

If I am in a GDS, any GDS, even in a GDS in which I am a brain in a vat with seamlessly attached hands, then (M1) is false. Roush and Leite's objection rightly argues that D, unless the GDS is specifically described, does not directly entail the falsity of (M2). However, it does entail the falsity of (M1) and that is sufficient to show that sense perception is not reliable. Because, my sense perception directly justifies (M1), not (M2). So, (1a) is plausible, if we take p as a proposition which is supposed to be directly justified by sense experience. And, even if p is an empirical proposition which is not directly justifiable by sense experience, such as (M2), we still need to rely on some directly justifiable empirical beliefs, such as (M1), in order to be justified in believing that p is the case.

The Compatibility Defense for the Second Premise

(1a) is plausible and (1b) is also plausible; therefore, (1) is plausible too. This means, if (2) is plausible as well, then it would be reasonable to regard the argument from ignorance as sound.

But, how can the skeptic convince us that (2) is in fact true? Descartes seems to think that the mere possibility of a GDS implies that we do not know that not-D. He writes, in the *First Meditation* "I see so clearly that waking can never be distinguished from sleep by any conclusive indications that I am stupefied; and this very stupor comes close to persuading me that I am asleep after all" (2008:14). Also, in *Principles of Philosophy* he

writes that there are "no marks by means of which we can with certainty distinguish being asleep from being awake" (2007b: paragraph 4).

It is important to note that the possibility of dream that Descartes is concerned with is not just the contingency of the empirical facts. After all, "I exist" is also contingently true since I don't exist in some possible worlds, but still, Descartes maintains that "I exist" is indubitably true. What justifies (2), according to Descartes, is not the mere possibility of D's being true, but the possibility of my being wrong about not-D. In other words, it is the compatibility of my justification and falsity of my belief. My justification for believing that I exist, namely, that I think, and the falsity of the proposition are not compatible, that is why I know that I exist. But, according to Descartes, my justification for believing that I am awake, namely, my sense perceptions (unless God guarantees their reliability), and falsity of the proposition that I am awake are compatible, therefore, Descartes claims, I don't know that I am awake.

So, we can formulate the Compatibility Defense of (2) as follows:

(C) You don't know that not-D, because the possibility that D is true is compatible with your evidence/reasons/justification for not-D.

However, this is just infallibilism, according to which one cannot know that p unless her justification logically entails p. Accordingly, the argument from ignorance with the compatibility defense would be:

(1) If I know that p, then I know that not-D.

(2a) A belief is not knowledge unless it is logically entailed by the justification.

(2b) My belief that not-D is not logically entailed by my justification.

(2) I don't know that not-D. [from (2a) and (2b)]

Therefore,

(3) I don't know that p.

(2a) rests on infallibilism. So, facing the Compatibility Defense, one can deny (2a) by simply rejecting infallibilism. In fact, infallibilism is generally discarded in contemporary epistemology because of its unrealistically high standards for knowledge. In the ordinary practice, we take ourselves to know things even though our justifications do not entail the truth of our beliefs. So, why wouldn't we reject (2)?

Of course there are replies from infallibilists. The ordinary practice can be criticized or its relevance to philosophical inquiry can be questioned. But, we don't even need to get into a discussion on infallibilism and fallibilism in order to see that the argument from ignorance with the

Compatibility Defense is a bad argument. It is a bad argument, because it is redundant and hence cannot do any persuasive work. The argument is concerned with empirical propositions that we believe on the grounds of our sense perceptions. Any such proposition is contingent and its falsity is logically compatible with our sense experiences. So, (3) follows directly from infallibilism. We do not need to entertain the possibility of GDS at all. Given infallibilism, the skeptic can simply propose the following argument:

(2a) A belief is not knowledge unless it is entailed by the justification.

(2b*) My belief that p is not entailed by my justification.

Therefore,

(3) I don't know that p.

The argument from ignorance can be relevant only if it is regarded in the fallibilist framework, but then (C) would be false and (2) cannot be shown to be true by the Compatibility Defense.

The skeptic can concede that the Compatibility Defense does not provide sufficient basis for undermining a knowledge claim about not-D and she might claim that we do not know that not-D for other reasons than the mere possibility of D. One strategy would be to argue that D is not merely possible, but it is probable enough to be taken seriously as an alternative to the anti-skeptic scenario. Another strategy would be to argue that since a vicious circularity which stems from epistemic priority requirements is inevitably involved in any attempt to justify the belief that not-D, we can never know that not-D. Neither significant probability nor epistemic priority defenses for (2) presuppose infallibilism.

I will first discuss the Epistemic Priority defense and argue that it in effect boils down to the Probability Defense, and then I will evaluate the Probability Defense.

The Epistemic Priority Defense for the Second Premise

Epistemic Priority Defense can be formulated as follows:

(E) You don't know that not-D, because your justification for believing that not-D presupposes that not-D, and this violates epistemic priority requirements and causes vicious circularity.

The Epistemic Priority Defense for (2) depends on the observation that D is not like any scenario that is incompatible with p, but a special kind of alternative to p. For example, let p be "That bird is a robin". Then, "That bird is a sparrow" (let's call this proposition "q") would be an alternative to p; p and q are incompatible. However, even if q is true

and p is false, this does not undermine the method by which we come to believe that p, which is observing the bird. If q is true and the bird is a sparrow, our belief that it is indeed a sparrow can be justified by further and more careful observation. So, our observation was erroneous when we thought the bird was a robin, but the fact that it is a sparrow does not imply that our observational skills are unreliable altogether, since q is justifiable by observation too. This is not the case with D. If we take D as an alternative to p, then D is incompatible not merely with p, but also with any background belief about the empirical world which must be presupposed for regarding observation as (even, only potentially) a reliable method. In other words, there is an impartial and reliable empirical method (observation/sense perception) for deciding between p and q, because neither p nor q is incompatible with that method, but there is no impartial and reliable empirical method for deciding between p and D, because any empirical method presupposes the falsity of D in the first place.

We can formulate this justificatory epistemic priority requirement as follows:

JEPR: Any belief p cannot be justified by a method that is reliable only if p is true, unless the reliability of the method can be established independently of p (without presupposing that p is true).

The skeptic, then, argues that any justification for the belief that not-D would inevitably (and at least partially) involve an empirical method (any method that depends on sensual perception) which is reliable only if not-D, and it is not possible to establish the reliability of any empirical method without presupposing that not-D. From this and JEPR it follows that not-D cannot be justified, and hence cannot be known.

One possible response to skeptic's Epistemic Priority Defense of (2) is that the reliability of the empirical methods that we use in our ordinary practice are not in need of a non-empirical justification. Pryor (2000) argues that we are already justified in taking our empirical methods to be reliable, albeit it is only *prima facie* justification. So, unless we have reason to doubt the reliability of our empirical methods, we are justified in using them (and justified in believing that the presuppositions that our empirical methods rely on are true).

Leite (2010) illustrates the intuition behind this reply with the following example:

> Brunet Hypothesis: Children of at least one brunet parent are massively bad at evaluating and responding to evidence, both in conscious deliberation and in non-deliberative belief formation, and they also suffer from widespread

> and significant deficits and distortions in sensory processing (compensated for by "infilling" and confabulation). (Leite 2010, p. 53)

If you are a person who has at least one brunet parent, you cannot justifiably reject this hypothesis according to JEPR, because the hypothesis calls your mental competence in question and in order to have any justification you will have to use your reasoning and presuppose that you are mentally competent. There is no way to establish that you are mentally competent without first dismissing the brunet hypothesis. However, it is obvious that the brunet hypothesis is not something that we should be worried about. If you have at least one brunet parent you still have enough evidence against the brunet hypothesis even though your evidence does not establish your mental competence independently of the falsity of the brunet hypothesis.

But, why is this the case? Why is it so obvious that people with at least one brunet parent are (or, at least, can be) justified to reject the brunet hypothesis even though they violate JEPR by doing so? Let's consider another scenario. Suppose that both of your parents are blond and suppose there is scientific evidence in favor of the brunet hypothesis. Scientists, let us say, report that they have discovered a virus which effects the mental capacities in humans and only the people who have at least one brunet parent are genetically vulnerable to this virus. Now, let's consider four scenarios:

(i) The evidence that the scientists offer is in fact substantial and it shows that the Brunet Hypothesis is true, and you believe that the hypothesis is true, and based on the scientific justification, you take yourself to know that the hypothesis is true.

(ii) Scientists are wrong and the Brunet Hypothesis is false, so there is no actual evidence for the hypothesis, and when you read about this virus you realize that there is no real evidence for the hypothesis, so you dismiss the hypothesis and take yourself to know that the hypothesis is false.

(iii) There is some evidence for the Brunet Hypothesis. The evidence is not substantial enough to establish the truth of the hypothesis but it is substantial enough to make the Brunet Hypothesis a relevant possibility, and, relying on the evidence, you do not take yourself to know that the Brunet Hypothesis is false, but you think that it is likely that the hypothesis is false.

(iv) There is some evidence for the Brunet Hypothesis. The evidence is not substantial enough to establish the truth of the hypothesis but it is substantial enough to make the Brunet Hypothesis a relevant possibility,

and you dismiss the hypothesis and take yourself to know that the brunet hypothesis is false.

Your attitude towards the hypothesis in the last scenario is not acceptable, because you simply ignore the evidence for the hypothesis in that scenario. However, (i), (ii) and (iii) are all acceptable.

JEPR does not present a problem in your deliberations on the Brunet Hypothesis since, in our example, your parents are both blond. But now suppose you find out that one of your parents is not real blond, but a brunet. Now, scenario (i) becomes problematic, because your believing that the Brunet Hypothesis is true is incompatible with your relying on your reasoning and knowledge in order to justify your belief that the hypothesis is true; your evidence is self-defeating. This would be analogous to coming to believe that a person never tells the truth just because she says that she never tells the truth. If it is true that she never tells the truth, then her claim that she never tells the truth is no more reliable, hence her claim is self-defeating. (ii), however, is not problematic in our ordinary practice even though it violates JEPR, as discussed above. (iii) is also plausible since you recognize the evidence for the possibility that you might be intellectually incompetent, but you also see that the evidence is not substantial enough to justify any belief as to the truth or falsity of the Brunet Hypothesis. (iv) is of course still implausible since you just ignore the evidence in that scenario.

Whether you have brunet parents or not, you can dismiss the Brunet Hypothesis if its being true is only possible but not significantly probable, and you cannot dismiss the hypothesis out of hand if it is significantly probable. JEPR makes no difference in (ii) and (iii) whether you have at least one brunet parent or not.

Whether you have independent evidence for the reliability of your method of justification for p or not, you don't know that p if there is sufficient evidence against p that makes not-p significantly probable.

In the ordinary practice, we can (and do) violate JEPR if the falsity of a belief is not significantly probable, as in (ii). If the negation is significantly probable, then JEPR becomes relevant. For example, suppose I believe that a person is reliable and my justification for this belief is that she says she is reliable. According to JEPR, this is not permissible; and JEPR is relevant here, because, for any person, being an unreliable person is significantly probable.

So, we can include significant probability of the negation as a condition in JEPR and reformulate it as:

PEPR: For any belief that p, if not-p is significantly probable, p cannot be justified by a method that is reliable only if p is true, unless the reliability of the method is established independently of the belief that p (without presupposing that p is true).

PEPR captures our intuitions better than JEPR. After all, in our ordinary practice, we inquire whether p is the case or not only if we believe that not-p is significantly probable. So, in order for the skeptic to convince a fallibilist in the ordinary practice, she must show that a GDS is significantly probable. If we apply PEPR to the skeptic's argument, we get:

SEPR: If a GDS is significantly probable, then the belief that not-D cannot be justified by an empirical method, unless the reliability of the empirical method is established independently of the belief that not-D (without presupposing that not-D).

Both the skeptic and the fallibilist anti-skeptic can accept SEPR. What they disagree about is the probability of a GDS. So, the Epistemic Priority Defense hinges on the Significant Probability Defense. If a GDS is significantly probable, then, by SEPR and the fact that any justification of not-D would involve empirical presuppositions, (2) is true.

But, if GDS is significantly probable, then our empirical evidence for not-GDS is not substantial enough to justify the belief that not-GDS, and hence not-GDS is not knowable through empirical justification. So, if a GDS is significantly probable, then the Epistemic Priority defense would not be needed, because, as we will see in the next section, the Significant Probability defense would be sufficient to show that (2) is true. In other words, the Epistemic Priority defense is only relevant if GDS is significantly probable, but if the GDS is significantly probable then the Epistemic Priority defense is redundant because the fact that the GDS is significantly probable would be sufficient to establish that (2) is true.

The Significant Probability Defense for the Second Premise

Significant Probability Defense:

(SP) You don't know that not-D, because the possibility that D is not only compatible with your evidence/reasons/justification for not-D, but D is also significantly probable.

In order to defend (2) by (SP), the skeptic needs to present some evidence that shows that a GDS is significantly probable.

In his *Discourse on the Method*, Descartes writes:

> Since there are men who make mistakes in reasoning, committing logical fallacies concerning the simplest questions in geometry, and because I judged that I was prone to error as anyone else, I rejected as unsound all the arguments I had previously taken as demonstrative proofs (2007a: part 4).

Descartes seems to think that the existence of people who are fundamentally mistaken in their most basic beliefs is evidence for the claim that Descartes is in fact mistaken in his beliefs too. However, this line of reasoning does not seem convincing, because those people Descartes is talking about can be easily identified; they are not indistinguishable from the rest of us. So, for me, their existence is not evidence for the possibility that I might be one of them. This is similar to the fact that, as I am Turkish, the existence of Japanese people is not evidence for the claim that I am in fact Japanese. If, on the other hand, Descartes would say that it is possible that a person who is fundamentally mistaken in her most basic beliefs might be indistinguishable from us, then the actual people who are fundamentally mistaken can't be taken as evidence for that anymore (since those people in the actual world are not indistinguishable from us), and his defense boils down to the Compatibility Defense. That would be like regarding the robins on the branch of the tree across the street as evidence for intergalactic spying devices just because it is metaphysically possible that the appearance of an intergalactic spying device could be indistinguishable from a robin.

What the skeptic needs is evidence that shows that a GDS which is indistinguishable from anti-skeptic scenario is significantly probable. For example, if there were actual brains in vats in our world, experiencing simulated worlds indistinguishable from the real world, this would make being a brain in a vat a serious and relevant possibility, and hence we could not know that we were not brains in a vats unless we somehow rule out that possibility. We of course would have a strong conviction that we were not brains in vats and we would live our lives according to that conviction, but our belief would not be justified.

However, there is a possible objection to the Significant Probability defense: It can never succeed, because any evidence that is supposed to show that a GDS is significantly probable will be incompatible with D. For example, in a world where actual brains in vats exist, the brains in vats are supposed to be evidence in favor of my being a brain in a vat, but if I am a brain in a vat, then those brains in vats that I take as evidence are in fact just simulations and they do not actually exist. Which means, I don't actually have evidence in favor of my being in a vat. Any actual evidence in favor of a D seems to be self-defeating.

This objection to the Significant Probability defense is not plausible, however. If there is evidence in the actual world in favor of D, then the skeptic who wants to employ the Significant Probability defense for (2) would argue as follows:

(S1) Here is evidence in favor of D (brains in vats in a laboratory, for example)

(S2) Either D or not-D.

(S3) If D, then the evidence in favor of D does not exist in actuality, but you still don't know that not-D, because it is false that not-D.

(S4) If not-D, then the evidence for D is real, which makes D significantly probable; therefore, you don't know that not-D.

Therefore, by proof by case,

(S5) You don't know that not-D.

So, it is possible for the skeptic to rationally defend (2) by presenting evidence in favor of a GDS. And, if she can show such evidence, then the argument from ignorance would be a sound and persuasive argument. But, there is no such evidence that we know of (cf. Bostrom 2003). The Significant Probability defense might become a plausible defense of (2) in the future, but as of now, it fails.

Conclusion

The first premise of the argument from ignorance is acceptable, given the epistemic closure principle. The second premise, however, is false. The three defenses of the second premise that we considered above all failed. The argument from ignorance could be a good argument if there were actual evidence in favor of a GDS, but as things stand right now, the argument from ignorance is not powerful enough to motivate us to take external world skepticism seriously.

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Chapter 20

TURKISH SERVICES EXPORTERS' ASSOCIATION SERVICE PERIOD YEARS INBETWEEN 2016-2019: AN EVALUATION OF CARGO TRANSPORT

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1. Introduction

Service Industry constitutes of seventy percent of gross domestic product and it provides employment and the growth in Turkey's economy. Service sector economy just like a factory production in the growth of domestic exports of services performed abroad.

It not only offers growth in country economy, but it also exports services abroad. Transportation and logistics services, is a part of the service sector and it is the first sector that comes to mind with the tourism sector in exporting services. Transportation and logistics services contribute in international trade of industrial and agricultural products and they deserved to be researched.

Among agriculture, industry and service sectors, service sector develops fast and takes attention. The importance of this sector is increasing both nationally and internationally. Countries have also realized its importance and are making efforts to develop some specific strategies for service sector (Ekinci, 2007).

To gain a share from international trade, countries focus on industries that are suitable for their market structures. In this framework, countries provide some incentives and supports to their industries with strategic characteristics and try to increase income with activities carried out in the international arena (Ekinci, 2007).

The World Trade Organization General Agreement on Services Trade (GATS) became valid in 1995. Initially, the restrictions on the services trade continued to change shape and size, but a certain level of liberalization was achieved and the services trade began to grow rapidly. In this process, although developed countries have the greatest benefit, emerging market economies have also made gains, increasing their share in the world service trade to over 35% (Aydın, 2018).

As an emerging market economy, Turkey has benefits from the general trend in the world. Since the establishment of Republic, the service sector has the greatest weight in its economic structure, with the effect of its social, cultural and economic dynamics.

2. Service Export and its Importance

In international trade, the first thing that comes to mind is the exchange of goods between countries. Except recently, the concept of "international trade" has been considered within the scope of "commodity trade". In this process, "service trade" has been a neglected issue (Ekinci, 2007).

With the intense competition in commodity trade and the decrease in profit margin for companies, the future way of earning foreign currency inflow through commodity trade is to export advanced technology products or country's economies can be developed with service trade as a different alternative.

The service sector plays an important role in the economy. Some studies show that services are at a key point between agriculture and industry. In addition, studies also reveal that the service sector plays a kind of intermediary role between other sectors and consumers in an economy. When viewed from this perspective, the place of the sector in the economy and therefore its contribution to growth can be better understood (Ekinci, 2007).

The covid-19 epidemic, which affected the whole world as of the end of 2019, has also shown obviously how critical the service sector is for the economies of all countries. Lockdown decisions affecting the service sector with the Covid-19 measures revealed a situation where not only the closed sector but also many related sectors and eventually the whole country economy were negatively affected.

The service sector has an important contribution in increasing economic efficiency. The concept of "efficiency" has a special importance for the service sector, as it is in other sectors. A service sector where relevant activities are carried out on suitable way also has the feature of facilitating economic growth. In fact, a society that has a high level of education and value research and development is a more productive society. Likewise, a healthy society will also be economically healthy, therefore, it is productive. In addition, transportation and communication infrastructure, which is considered within the scope of services, is effective in increasing efficiency (Ekinci, 2007).

Together with the technological developments of transportation vehicles and the areas of capacity, speed and distance have a positive effect on productivity, and growth by significantly increasing the international mobility of the services.

3. Service Export Issues

Today, the importance of service areas related to economic and social developments has shown necessity to classify the services sector. Among the classifications made according to different criteria, the most accepted classification is the classification created by the World Trade Organization under the General Agreement on Trade in Services (GATS). In this classification, there are 12 service sub-sectors listed as follows:

1. Professional services
2. Communication services
3. Construction and related engineering services
4. Delivery services
5. Education services
6. Environmental services
7. Financial services
8. Health and social services
9. Tourism and travel related services
10. Entertainment, cultural and sports services
11. Transportation services
12. Other services not included (Özsağır, Akın, 2012).

According to the World Trade Organization, transportation services are in the eleventh place in the classification and it includes all service branches in the field of passenger transportation and freight transportation.

Although they are specified in different articles in the classification of the World Trade Organization, considering that distribution services, tourism, especially travel-related services, and a part of entertainment, culture and sports services cannot be realized without transportation activities, the importance of transportation and transportation services is revealed.

4. Development of Service Sector in Turkey

The first years of the young Republic of Turkey, which was established after the collapse of the Ottoman Empire are examined. It is seen that the economic structure was established on the agricultural sector. The industry and service sector has remained at a rather limited level compared to the agricultural sector in these years.

As a country that later caught up with the industrial revolution, it was quite natural for Turkey to construct its economic structure over the agricultural sector. As the years progress, it can be easily observed that the share of the industrial sector in the economy has increased systematically.

Since it takes a long time to develop the industrial sector and it is necessary to allocate large financial resources to this area, the development of the industrial sector has not been at the desired level. Because of the urbanization, the share of the agricultural sector has reduced.

Large groups of people who migrated from the village to the city could not be fully employed in the limited number of industrial jobs in the cities, which forced people who had to work in various branches of the service sector. This is how the service sector filled the huge gap left by the agricultural sector.

5. Development of Service Export in Turkey

It is accepted that the service sector, which is dominant sector in the Turkish economy, with exports started with the opening up and liberalization movements as of the 1980s.

Service exports, which have been identified with tourism until the 2000s, have changed in the last two decades. Tourism, of course, maintains its importance in service export.

In addition to the internationalization of transportation services since the 1990s, the increasing construction and related engineering services have emerged as service export issues that provide foreign currency inflow to our country today.

Today, with our universities, the number of which is increasing, the export of educational services, the export of globally accepted health and aesthetic services, and the Turkish TV episodes, which are our cultural ambassadors by exporting them to other parts of the world, are bringing billions of dollars in foreign exchange revenues to our country as service exports.

6. Importance of Service Exporters' Association

Considering the complex and unique structure of the international arena in particular, the need for service export actors of our country for the individuals and organizations that are experts in their business has increased with every day in order to ensure that the service delivery is performed correctly with physical evidence, process and personnel as a result, it has become mandatory to establish Service Exporters Association.

General Secretary of the Istanbul Mineral and Metals Exporters Union (IMMIB) with the Ministry of Trade's Notification of Export 2018/3 published in the Official Newspaper dated 24.03.2018 and numbered 30370 established the Service Exporters Association (hib, 2021).

The Service Exporters Association aims to coordinate the issues, especially the service export strategy, with the sectoral sub-committees consisting of the relevant sector representatives who will meet periodically in general service activities with its committees.

In workshops and trainings held with the participation of the members, while sectoral strategies for service export are determined, it is aimed for our member companies to find an address in the international market and gain experience with trade-procurement committees, fairs and various organizations, which are among the leading activities of market entry practices (hib, 2021).

The main function of the Service Exporters Association is to assist Turkish companies, which are parties to international service trade, to achieve the highest level of foreign exchange earnings by performing their service exports in the most appropriate way.

7. Importance of Freight Transportation and Logistics Services in Service Export

Although there are many subjects in service export, the two main areas are tourism and transportation activities. Transportation and logistics services in tourism services makes these activities the most important item of service exports.

It is clear that both the diversity of the transportation services and the share of the service exports have increased rapidly with the local transportation actors, the weighted operations in the transportation of the country's products to be exported to all over the world, especially to the European market, as Turkey has placed its economic development strategy after 1980 on the growth based on exports.

Operating in the sector that has strategic importance for our country's service export and indirectly for the export of goods;

- Motor Carriers
- Shipping companies
- Air cargo companies
- Intermodal / combined transporters

• Forwarders etc. companies are in the field of activity of the service exporters association (hib, 2021).

The performance of the service providers mentioned above in providing freight transportation and logistics services in total service exports years between 2016-2019 is summarized in the table below.

Table 1

Total Service Exports and Transport Values by Years

Years	Export(Million $)	Transportation(Million $)	Transportation/Export(%)
2016	27587	19734	71,53
2017	31001	22123	71,36
2018	33403	24340	72,86
2019	33759	24197	71,67

Considering the total service exports and transportation values by years, the increase in service exports is also reflected in transportation activities years in between 2016-2018. However, the year 2019 is the only exception.

While the total value of service exports increased this year compared to the previous year, the transportation service decreased compared to the previous year. On the other hand, the share of transportation services in service exports does not fall below seventy-one percent, proving every time it is an important point to consider for the service activity.

The table below has summarized the performance of only freight transport and logistics services in total transportation services between the years 2016-2019, excluding passenger transport and other transport activities included in transport services.

Table 2

Export of Freight Transport and Logistics Services

Years	Export(Million $)	Freight(Million $)	Freight/Export (%)
2016	19734	8208	41,59
2017	22123	8954	40,47
2018	24340	9102	37,39
2019	24197	9037	37,34

This table shows the export values of freight transportation and logistics services by years. Total service exports and transportation values over the years are also observed here. The essential point is here that the percentage of freight transport and logistics services in total transport export value is decreasing yearly.

Although this movement is not very observable, its continuity has the potential to pose a problem for the freight transport and logistics service sector in the future.

8. Results and Evaluations

After the industrial and agricultural sectors, service sector has a great share in Turkish economy. Additionally, Services Exporters Union has an aim of to make better activities overseas and it is also known for providing green passport to the export companies.

However, in this study apart from the advantages provided above, Service Exporters Union not only exports service and increases the income of the countries, it also protects the companies from the risks.

The Association of Service Exporters have the ability to produce quality services to be preferred Turkey on a global scale services sector stakeholders; They have gained a partner that will help them in international trade, provide them with solution alternatives to the problems they may experience abroad, and guide the service exporters in their international marketing activities. In the long run, it will be possible to observe what the Service Exporters' Association means for service exporters.

This study shows the share of the transportation and logistics services sector in the transportation service export has been decreasing in the years evaluated. It is clear that the reasons for this situation should be investigated by the non-governmental organizations of the sector on behalf of the organizations providing transportation and logistics services.

The research limits itself by focusing on freight transport and logistics services. In addition, when looking at the foundation year of the Service Exporters Association and the next year, it has been made to make inferences from the situation of service exports over a four-year framework by looking at the two years of service exports before the union.

Since the Covid-19 pandemic, which has affected the whole world as of 2020, caused great deviations in all international trade data, it is not appropriate to include the data of the year 2020 in the evaluation.

In future research, other studies can be carried out on other service export branches. Again, apart from the establishment of the Service Export Association, researchers can evaluate which elements have an effect on service exports. Furthermore, they can make detailed studies on the sub-subjects of the export branches in the field of service export.

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Chapter 21

THE KEY FACTOR FOR ORGANIZATIONS: HAPPINESS FOR HAPPINESS

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INTRODUCTION

After the Industrial Revolution, the subject of management in organizations started to be considered scientifically and one of the first studies on this subject, "The Principles of Scientific Management" was published by Taylor (1911). Taylor focused more on production issues in scientific management approach and studies conducted in the period called classical period in the literature were criticized for neglecting the human factor. (Litter, 1978).

However, after the Hawthorne Studies, which was initiated by Elton Mayo (1933) with the intention of verifying Taylor's views, but resulted in the discovery that the social aspect of man has a more dominant role in determining the amount of work he does, a new era began in management science. With the aforementioned new period, the human factor has started to be dealt with in its social and psychological aspects in studies related to the scientific management of organizations.

With the Total Quality Management (TQM) understanding, which is widely emphasized in the period referred to as the modern management period (post-1980), the human element has been centered as both customers and employees, and the importance of highly motivated (happy) employees for satisfied (happy) customers is emphasized (Garwood et al., 1999).

The happy person has peace of mind that prevents negativity in his feelings and thoughts. Peace makes the person who is spiritually empowered to be stronger mentally and physically also (Goleman, 1996: 23).

Being successful and happy in life has been important to many people. The belief that the prime factor between these two situations is success has prevailed in traditional psychology for many years. Positive psychology, on the other hand, argued that happiness brings success and handled the issue from a different perspective (Achor, 2013: 17).

Today, customers have the opportunity to choose more due to the variety of food and beverage businesses. Consumers, who have been eating and drinking outside for many years, are now specialized in a way and thus behave more sensitive and selective. For this reason, when a business cannot fully meet the demands and needs of consumers, consumers can easily tend to buy towards another brand / business. In this case, it is normal for the business to lose income. Over time, the determinants of excellent service have changed. Businesses such as restaurants operating in the field of food and beverage are now asking the real bosses, namely

customers, and trying to determine the quality of service that should be (Stevens et al., 1995: 56).

For example, Kim and Kim (2005) found a positive relationship between firm performance and components of consumer-based brand equivalence. It was emphasized that perceived quality should be managed carefully in order to have a good financial outcome. Again, Hyun and Kim (2011), in their studies conducted with five chain restaurant brands in South Korea, reported that brand image and perceived quality are mediating variables in the formation of brand loyalty.

So, where is the attitude of the employees among the variables that express the elements such as brand image and perceived quality when viewed from where customers stand? When considered within the scope of this question, the concept of happy employee or the happiness of employees emerges as an issue that needs to be taken into account. Because it has been revealed that employees whose emotions are not taken into account and who are seen as just a machine are negatively affected physically and mentally over time, and with this effect, their productivity and performance also begin to decline (Davies, 2016: 106-107).

In this study, the question of whether there is a relationship between *the proposition (from management literature) that happy employees are more efficient/successful* and *the perception of service quality, which is emphasized in the marketing literature for happy customers*, will be evaluated with the data collected from the employees and customers of Helvacı Ali, a franchise brand. If the relationship between them turns out to be positive and strong, suggestions will be made on what can be done in the organizations for the happiness of the employees.

HAPPINESS

Although happiness is a concept that varies from person to person; positive emotions can be defined with different meanings such as joy and pleasure (Buettner, 2012: 27).

Researches with the theme of happiness show themselves in many fields, especially psychology (Warr, 2011: 8). The concept of happiness can be philosophically defined from two different perspectives: One of them is hedonism and the other is eudaemonism (Dewe & Cooper, 2012: 100; Deci & Ryan, 2008: 3).

According to hedonism, people are happier when they get more pleasure from any situation (Martin, 2013: 17).

On the other hand, the edamonic point of view suggests that happiness cannot be completely proportional to pleasure and that happiness is

a deep concept beyond pleasure (Ryff, 1989). According to Page and Vella-Brodrick (2009), people are happy when components such as self-assimilation, having a purpose in life, dominating the environment, establishing positive social relationships, autonomy and personal development come together.

After the Second World War, psychology, which focused especially on healing the emotions that people could not cope with, analyzed the souls of people. Thus, despite showing success and benefit in diagnosing and curing diseases in the human psyche, it was insufficient in determining the criteria that make human life worth living. Positive psychology, which comes into play in overcoming this inadequacy, focused on positive emotions that pave the way for their development, rather than negative emotions that limit people (Smith et al., 2016: 17).

Happy people are more active and productive than other people. This situation brings with it features that affect the development of the person, such as the desire to research. In other words, positive emotions trigger each other and contribute to positive gains. Happiness is a relative experience that makes unforeseen contributions (Gilbert, 2008: 47).

Each person has a different point of happiness inside, set up like an alarm clock. The level of happiness, which rises from time to time and decreases from time to time, sooner or later returns to the point where it is set up in every person (Plotnik, 2009: 366).

According to the "World Values Survey" conducted by Minkov and Bond (2017) with participants from 97 countries, the most influencing factors on people's happiness levels are their control over their own lives and their perception of freedom.

When happiness ceases to be a defacto emotion and becomes the goal of people, people only live with the desire to be happy. However, whether people are happy or not is determined by their mental and emotional reactions to the conditions they live in, not the results of their efforts. The formula of happiness is relative and the key is in everyone's own hands (Lama and Cudler, 2008: 7).

Happiness creates a domino effect. A happy person gives happiness to his environment, and similarly, a person with a happy environment also receives happiness from his environment (Hefferon and Boniwell, 2014: 49).

When the happiness criteria of the people are examined, it is seen that the social relationships people establish with their enviroments take the first place. In fact, this social phenomenon comes before the success of the person both in business and private life. People consider their social

relations before their material and spiritual possibilities. The goodness of these relationships brings happiness and the bad ones cause stress and unhappiness (Burger, 2006: 221).

Ryff (1989: 1071) says that happiness can exist not only by not having psychological problems, but also by having some positive characteristics. As in other studies on the subject, in Ryff's work, the existence of situations such as self-actualization, having a purpose in life, developing positive relationships with the environment, and personal development are important in the happiness of people.

From this point of view, organizations should choose happy employees from the very beginning according to the above criteria and more importantly, they should establish an environment that will increase and sustain the happiness of the employees.

WHY IS THE HAPPINESS KEY FACTOR FOR ORGANIZATIONS

Many studies have shown that happy people are more efficient at their jobs than unhappy people, as well as defining their jobs more positively (Connolly & Viswesvaran, 2000; George, 1995; Fisher, 2002; Judge & Ilies, 2004; Mignonac & Herrbach, 2004).

Happiness has consequences beyond people's feelings of positive emotions. Happy people have a healthier and stronger social life besides being more energetic and creative (Diener & Chan, 2011; Lyubomirsky, et al., 2005).

Moreover, workers who experience positive emotions do not just go beyond job descriptions. They invest more in their work and internalize their work more (George, 1995).

In various studies, it has been determined that there is a direct and strong relationship between customer satisfaction and perceived service quality (Prameka et al., 2017; Fleming, 2017, DeNeve et al., 2013). According to the Dineserv scale (which is a scale developed especially for the food and beverage sector), which is one of the scales developed to measure perceived service quality and consists of five dimensions, there are items related to the psychological status or performance of employees in four dimensions (reliability dimension, responsiveness dimension, assurance dimension and empathy dimension).

These are items such as the correct and reliable performance of a service, the responsiveness of employees to help customers and provide a fast service, their knowledge and experience about the business, having

reassuring abilities, and showing personalized interest and interest in customers.

The Dineserv scale used in our study leads us to the concept of happiness, which directly affects employees' performance and behavior. Because there are quite a few studies, some of which have been given above, that reveal the relationship between the concept of happiness and employees' performances and behaviors.

For example, according to Judge and Klinger (2009: 107), work, which has most of the time a person spends outside of sleep, has an important ration in life. Therefore, the happiness of individuals in their work and family lives mutually affects each other.

Being unhappy and indifferent to what they do means a loss of productivity for organizations. According to the research conducted by Gallup in the USA, the cost of unrelated employees to organizations is between 450 and 550 billion dollars per year (Fleming, 2017: 57).

Happy employees are sharing, accommodating and productive people who can establish more positive and effective relationships with their environment, considering the criteria of perceived service quality (McKenna, 2006: 296).

The superior performance of happy employees is not limited to the tasks clearly stated in the job position. The presence of positive influence refers to behavior that goes beyond a job description and benefits both other individuals and the organization itself.

AN APPLICATION ON RELATIONSHIP OF HAPPINESS AND SERVICE QUALITY

The Purpose and Scope of the Study

The main differences that separate services from industrial products are described in the literature as: intangibility, inseparability, inconsistency and inventory/perishability.

Intangibility: It is the most basic feature that separate services and goods. It refers to an action or performance rather than features that appeal to the sensory organs such as seeing and tasting (Zeithaml et al., 1985: 33).

Inconsistency: The quality of service varies as a natural consequence of the situations where people are involved. That is, it has a heterogeneous structure (Parasuraman, 1985: 48).

Therefore, it can be said that the psychological climate within the organizations has an important ration in order to have a high perception of service quality, which is directly affected by employee performance (intangibility) and attitude (inconsistency). Considering the role of positive psychological climate in organizations to increase organizational citizenship (George, 1995), the concept of "happy employee" becomes more important. According to Hyun (2009), relationship management is an element that enriches consumer perception and includes actions such as altruism and kindness based on positive emotions such as happiness.

As Borman et al. (2001) stated, there are many behaviors that will improve the functioning of an organization in relation to positive emotions such as happiness: making extra effort, volunteering for optional tasks, helping and cooperating with others, protecting the organization, offering improvement suggestions, personal skills, development and dissemination of goodwill, etc.

Indeed, happy people are more likely to help customers than unhappy people (Thoits & Hewitt, 2001). Therefore, happiness is directly related to the working life of individuals (Cotter and Fouad, 2011: 52).

In this context, this relationship, which has been handled directly or indirectly in various studies, has been investigated and consequently, recommendations have been made to the organizations regarding the happiness of the employees.

Measurement

As a measurement tool; Oxford Happiness Scale Short Form (OHS-S) was used to measure the happiness levels of the employees. This scale is a form developed by Hills and Argyle (2002). The scale, which was adapted to Turkish by Doğan and Çötok (2011) and whose validity / reliability analyzes were made, is an 8-item scale developed to evaluate the happiness level of individuals.

Dineserv Restaurant Service Quality Scale was used to measure customers' perceptions of service quality. Developed by Stevens et al. (1995) and known as Dineserv in its abbreviated form, the scale is used to measure the service quality of restaurants, etc., operating in the field of food and beverage. This scale, which includes many items about the personality and attitudes of the employees, is a 26-item scale under 5 dimensions.

Both scales are 5-point Likert Type scales consisting of "strongly agree (1)" and "strongly disagree (5)".

The data were analyzed using IBM SPSS 23.0 package program. Simple linear regression analysis was used to analyze the data collected through the survey technique. For this purpose, the averages of the happiness levels of the employees in each branch and the service quality perceptions of the customers were taken. By calculating the regression coefficient between the averages obtained, the level of explanation of the happiness levels of the employees on the service quality perception was determined.

Sample and Data Collection

Within the scope of the research, data was collected from 34 franchisee branches of Helvacı Ali Brand, headquartered in Bursa. It was used survey method. Surveys were distributed to 50 branches in total. 20 surveys were sent for customers per branch, and 5 surveys were sent to employees. The results of the research were reached with the remaining survey data when the invalid surveys (34 branches) were removed from the returned surveys (39 branches).

Branches/Provinces where valid data are collected; Bursa1, Bursa2, Istanbul1, Istanbul2, Istanbul3, Istanbul4, Ankara1, Ankara2, Manisa, Akhisar, Duzce, Ordu, Tokat, Tekirdag, Canakkale, Sakarya, Iskenderun, Batman, Diyarbakir, Zonguldak, Trabzon, Antalya, Izmir1, Izmir2, Van, Kırsehir, Burdur, Isparta, Sivas, Amasya, Kayseri, Afyon, Corum, Yalova. The number of employees and customers reached for each branch in the sample is given in the findings section.

There are various acceptances and calculations when determining the sample size. For example, Kline (2011: 12) states that in a non-multivariate application, 10 times the number of expressions used in the scale, not less than 100, is sufficient. This quorum has been reached in both the employee survey and the customer survey.

Findings

The average of the evaluations obtained from the participants for the number of employees and customers participating in the study, the happiness levels of the employees and the service quality perceptions of the customers are given in Table.1. Accordingly, data were collected from a total of 135 employees and 489 customers from 34 branches, and the average of employee and customer data for each branch was taken. Also, looking at the branches that provide return, it is seen that there is a geographically balanced distribution.

Table.1: *Number of employees and customers for which data were collected for each branch included in the sampling*

	Branches	Employee (N)	Customer (N)	Happiness x̄	Dineserv x̄		Branches	**Employee (N)**	**Customer (N)**	**Happiness x̄**	**Dineserv x̄**
1	Bursa1	4	15	3,66	3,81	18	Batman	5	18	4,66	4,58
2	Bursa2	5	12	4,2	4,41	19	Diyarbakir	4	15	3,67	4,09
3	Istanbul1	4	18	3,71	4,32	20	Zonguldak	3	12	3,17	3,57
4	Istanbul2	5	11	4,83	4,51	21	Trabzon	4	16	4,23	3,62
5	Istanbul3	3	19	4,18	4,02	22	Antalya	5	11	4,21	3,91
6	Istanbul4	4	15	3,92	4,22	23	Izmir1	5	10	4,66	4,58
7	Ankara1	4	12	4,36	4,66	24	Izmir2	5	19	4,71	4,63
8	Ankara2	5	16	3,66	4,01	25	Van	4	15	3,25	3,01
9	Manisa	5	11	4,32	4,68	26	Kırsehir	3	16	4,38	4,22
10	Akhisar	3	12	4,7	4,52	27	Burdur	3	16	3,87	3,52
11	Duzce	3	18	3,23	3,86	28	Isparta	4	11	3,33	4,01
12	Ordu	4	18	4,56	4,03	29	Sivas	4	18	3,46	3,65
13	Tokat	3	16	3,33	3,98	30	Amasya	3	17	4,39	4,21
14	Tekirdağ	4	12	4,33	4,22	31	Kayseri	5	10	4,53	4,95
15	Canakkale	5	10	3,5	3,74	32	Afyon	4	13	4,76	4,28
16	Sakarya	3	19	4,82	4,26	33	Corum	3	10	3,85	3,96
17	Iskenderun	4	16	4,31	4,3	34	Yalova	3	12	3,66	3,45

Total Number of Employees: 135 – Total Number of Customers: 489

Simple linear regression analysis was performed on the aforementioned data and it was tried to determine to what extent the happiness levels of the employees explain the service quality perceptions of customers.

Table.2: *The linear regression analyze result for relationship between happiness and perceived service quality*

R^2	F	p
.510	33,340	.000

According to the linear regression analysis result obtained, it can be said that the happiness levels of the employees explain 51% of the service quality perceptions of the customers. This ratio indicates a high positive relationship between the two cases.

CONCLUSION AND RECCOMENDATIONS

Dávila and Finkelstein (2013) concluded in their study that perceiving organizational citizenship behavior as a role increases happiness. For this reason, it is important for the employees to see themselves as a citizen of the organization and identify themselves with the organization. According to Bakker and Oerlemans (2010), happiness consisting of high efficiency and high pleasure increases the performance of the organization. The low happiness of the employees is expressed as an indicator that there is a problem in their job roles, rewarding system, interpersonal relations and working conditions (Joshi, 2010: 25).

The findings obtained in our study also lead us to a conclusion that supports this result. The data collected from 34 branches of the Helvacı Ali Brand, which works with the franchise system, show that the customer satisfaction is significantly higher in the branches where the happiness level of the employees is high. Therefore, organizations (especially in the context of management approaches) certainly have responsibilities in increasing this feeling, which is closely related to environmental factors as mentioned earlier:

Above all, it should be ensured that employees have autonomy regarding their work and their participation in decisions. It should be clear about what is expected from the employees and feedback should be given about performance evaluations (Bryson et al. 2014: 13).

Opportunities should be provided for employees to use and develop their skills and their positive relationships with the business environment should be supported (Joshi, 2010: 25).

In order for the employees to have a sustainable happiness, it is important to follow the relationships they establish with their colleagues and managers. The nature of the work (workload, flexibility, change, limitations, type of work, how the job is perceived) should be analyzed and it should not be forgotten that the work life of the employee is connected with other living areas (Shier and Graham, 2010: 416).

These recommendations for the happiness of the employees in the organization are important because the results obtained in this study also show that the way to happy customers passes through happy employees.

Moreover, the benefits of happiness at the individual and organizational level are not limited to happy customers.

According to DeNeve et al. (2013: 56-57), happy employees are more productive. They behave cooperatively and harmoniously in jobs that require team play. In addition, happiness can increase feelings such as curiosity, creativity, and motivation among employees.

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Chapter 22

MULTICULTURALISM IN AMY TAN'S *THE JOY LUCK CLUB* AND SANDRA CISNEROS' *CARAMELO*

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Introduction

To the extent that people are affected by society, they affect the environment and society in which they live. It is inevitable for a multicultural society to emerge, with the transportation and communication means between countries becoming more accessible thanks to the developing technology in recent years. As different cultures meet in the same society due to exile, war, brain drain, and revolution, the individual who reflects his own culture to the society is also affected by the opposite culture.

Multiculturalism has defined the unity of cultural differences -identity, belonging, and values- living with specific boundaries. Today, multiculturalism shows that people who have grown up in different cultures are in contact with each other and should be interested in and accept each other. All multicultural people focus on understanding, analyzing and living with cultural and social differences. Throughout the history of America, all literature is multi-ethnic and multicultural.

Multicultural literature is the way for those oppressed in the past, who have no sense of belonging, to show themselves and make their voices heard. The literature will inevitably reflect society. This relationship of culture and literature gives the opportunity to witness, understand and accept the experiences of multicultural people. Multiculturalism and education in multicultural societies overcome all obstacles, instill unity and provides the opportunity to celebrate joy with others. (Pratiwi, Sili, & Wati, 2017, p. 104). America is the primary of multicultural countries. However, the fact that America has hosted different cultures throughout history has also affected the literature. That is why minority literature formed by various ethnic groups has emerged. Multiculturalism uses often neglected aspects of social history to highlight the histories of women and minorities. Multicultural people do not accept the concepts of race, class, culture, gender and ethnicity and want their multicultural lives respected. For, just as the west sees them as “others”, their society also calls them “others”. In this case, multiculturalism emerges when they blend the emptiness of belonging with what they experience. All multiculturalists focus on understanding and living with cultural and social differences. (Akyiğit, 2020, pp. 203-204). According to Saroj Bala the advantages of multicultural literature are:

- It can be used to weaken, examine and remove racial discrimination. It generates goodwill among multiethnic communities and respect for different cultures.

- It reflects the cultural diversity within the society which leads to the acceptance and recognition of the heterogenous nature of society.

- It gives primacy to equal rights and duties for all the people living in a heterogenous society.
- It motivates people to know their culture and assimilate elements of other cultures. (Bala, 2015, p. 9)

Mexican American Sandra Cisneros and Chinese American Amy Tan are essential names of American minority literature and multicultural society. Both authors have impressions from their own lives in their works. Both Amy Tan and Sandra Cisneros have struggled to survive as a migrant in America without losing their own identity and languages.

In 1952, Amy Tan was born in the USA as a Chinese girl. *The Joy Luck Club* is the most important book written by Chinese American writer Amy Tan in 1989. This novel was also adapted into a film four years after its publication.

In *The Joy Luck Club*, Amy Tan mentions four families who immigrated to America. Tan focuses on the mother-daughter relationship by emphasizing multiculturalism in the book. Tan desires to display how the characters have a dilemma in their life with both their Chinese heritage and American surroundings. Mothers who migrate from China to America with many hopes experience the pain of not teaching Chinese culture to their daughters born in America. As a result, mothers' communication problems with their daughters launch here. Mothers who grow up in China always tell their daughters who grow up in America about their culture and China. But the differences between what their mothers narrate and what daughters see and experience pushes them into identity confusion in a multicultural society and leads to a communication problem with their mothers. As a result, they refuse to speak and learn Chinese. Besides, they tease with their mothers' English accent. Because daughters are incompetent and unwilling to speak Chinese, while mothers think the same about English, their lack of communication is also due to language differences.

Mexican-American writer Sandra Cisneros was born in 1954 in Chicago, America. Cisneros and his family have always lived in schizophrenia that lives in American society but does not belong to either culture. They're not actually Mexican, but they're not American either. The recognition of the Latins as the second-largest group in the United States and the continued growth of the Latin population provides an increase in border studies in the wider areas of American minority literature and cultural studies.

In her book, *Caramelo*, the protagonist and narrator are Celaya – she is also called 'Lala'- observes and narrates about her family and

grandmother. Celaya is the only and youngest daughter of the family with seven children like Sandra Cisneros. She describes a story about a Mexican family who travels a lot between Mexico City and Chicago. Throughout the Mexican American journey, Cisneros concerning America and Mexico border as a specific site and focuses on migrant's contested identities. Cisneros highlights the importance of multigenerational myth-making in diasporic and migratory communities. So, In *Caramelo*, she describes the cultural conflict between borders. Cisneros tries to show the reader the grandmother-mother-daughter relationship at the same heritage but in different countries –Mexico and America-. Cisneros uses Spanish terms and her characters speak Spanish in some parts. The language limit is more flexible than *The Joy Luck Club*. One of the reasons for this is that Celaya and her family constantly travel between Mexico and America.

Multiculturalism in *The Joy Luck Club* by Amy TAN

The Joy Luck Club consists of four sections. Each section reflects the experiences of four mothers and their daughters in San Francisco, America, as immigrants. Tan has succeeded in reflecting her multicultural conception and life in her novel. Huntley states Amy Tan's situation with these words:

Amy Tan was a young American girl who disagreed with the rules of her Chinese parents at home. At school, he was usually the only Chinese student in his class. He was a Chinese foreigner who looked different from anyone with his slanting eyes in the world of white Americans (1998, p. 26).

Tan's cultural conflict that lives multicultural environment can be realized. In the first section of the book, mothers narrate their mothers and their relationship with them. In the second section, daughters describe their childhood and what is expected of them by their mothers. In the third section, daughters narrate their adulthood and dilemma by focusing on their marriages or careers. Finally, in the last area, the daughters begin to understand and take their mothers' advice to save themselves.

Four Mothers build up *The Joy Luck Club* in order to protect their own identity in America. They immigrate to America with good wishes and for good opportunities. Tan shows their good desires by saying, "You could be anything you wanted to be in America" (1990, p. 132) because the mothers believe American dream. One of the mothers, Suyuan Woo, tells about Joy Club:

As Asians living in America, we decided to hold parties and act as a new beginning every week. We forgot the mistakes made to us in the past. We feasted, laughed, played games, lost and won, told each other good

stories. We founded The Joy Luck Club to protect our hope and joy (Tan, 1990, p. 22).

Nevertheless, they encounter different challenges in San Francisco. They have the anxiety to comply with their Chinese heritage with their American surroundings. Unfortunately, their concerns come true, and they could not resist the dominant culture. They forget why they have come to the USA and what they have left behind in China (Tan, 1990, p.17). Tan states that they launch to lose their own identity and heritage. According to Jing, By creating the club, Tan empowers the characters to struggle against the dominant white culture and produce their unique Chinese American culture, contri77buting to the multicultural society (2015, p. 7). However, Amy asserts that they lose this struggle.

After Suyuan Woo passed away, her husband and aunties ask her daughter -Jing-Mei- if she takes her mother's place or not in Joy Luck Club. However, Jing-Mei –their friends call her June- thinks that this club is unnecessary and ridiculous. She says that Joy Luck was a shameful club was found her mothers and aunties (Tan, 1990, p. 23). June does not accept her Chinese heritage. It can be understood from her new American name 'June'. She begins to lose her identity by using a different name. Suyuan Woo forces her daughter Jing-Mei to be the best pianist at her young age, but Jing-Mei decides to quit playing the piano. It makes her disobeyed child in Suyuan's view. However, there Are differences between Chinese and American culture. While this was a massive disrespect for Suyuan as a Chinese mother, it is a natural situation for June, who grows up in America. According to American culture, a person should be free, individual and do whatever she or he wants. For Chinese-Americans, living in America was difficult in terms of prejudice, cultural, social and linguistic differences against them. (Matas, 2012, p. 304). As Matas confessed, this situation launches to force mother and daughter relationship. June ignores her mother. Because his mother always thinks she is right herself, June claims that she is not her slave and did the wrong thing when she listens to him. (Tan, 1990, p. 304). It can be realized that June rejects her cultural heritage. Especially by saying this was not China. There is a significant cultural clash in her words. According to Golchin:

June not only feels that her mother is not enough and is wrong, but she is also against the American culture and principles she learned at school. Despite all this, he has no control over his own future and life. (2011, p. 14)

However, the dominant American culture seen in June's character is balanced, and her multiculturalism emerges when she finally accepts her own culture and learns about her family background.

Lindo, like her best friend, Suyuan, desires her daughter to be the best. Her daughter is Waverly, who thinks her mother takes credit for her success at chess. She tells her mother:

She kept telling me about my chess games and achievements as if he had developed strategies. I told my daughter to develop a strategy using the horses on the chessboard. He won because of my tactics—just a few of the thousands of unnecessary things he said about my winning. I'm not too fond of it when it takes all my success for herself. And one day, I couldn't stand and told my mother that she didn't understand chess, she didn't know anything, and therefore she shouldn't be showing off because she should shut up now. (Tan, 1990, p. 170).

There is a cultural conflict here as well. This conflict between mother and daughter stems from the cultural difference and their living in a multicultural society. While American culture promotes individualism, Chinese culture emphasizes family ties and the importance of collectivism. (Golchin, 2011, p. 8). Lindo and Waverly have conflict because of cultural differences like Suyuan and her daughter June's conflict.

Lindo's conflict comes up; she says, How more American? How and which one is more Chinese? If I hold one of them, the other is left in my hand. I always have to sacrifice one side of me. (Tan, 1990, p. 153). Here, Tan tries to message that no one maintains only her/his own culture in a different culture and they have to realize their multicultural identity and world.

Although Lindo initially sees the closeness and nostalgia of Chinese culture predominant in its character, over time, she begins to make sense of her inevitable hybridity and multi-cultural ethnicity. (Wang, 2017, pp. 121-122). They try to get used to this multicultural place to live. Like Lindo, Waverly also knows that she loses her Chinese heritage. She worries if they think I have adapted very well to my own culture and prevent me from returning to the United States (Tan, 1990, p. 253). When Lindo hears her thoughts, she thinks she couldn't teach her Chinese culture and realizes that her daughter is embarrassed about being Chinese. She reflects her this feeling by saying:

As a Chinese mother, I failed to teach my daughter how to respect parents and not interrupt their words. I could not teach our emotions to recognize the hidden thoughts, how we do not hide our emotions, why easy things are not worth pursuing, how you need to know your own worth, why Chinese thought is the best (Tan, 1990, p. 254).

She has the pain that her daughter is losing her identity just like herself. That's why Lindo tells her that only her hair and skin are Chinese, inside it

is entirely American-made. At this point, she realizes that her daughter has lost her self-identity (Thambi, p. 50). So, Lindo gives up teaching Chinese culture to Waverly and tries not to think about her behavior.

One of the mothers is An-Mei Hsu, who tries to communicate and establish a relationship with her daughter Rose. When she realizes her daughter's marriage problems, she narrates her own story to her so that she doesn't make her grandmothers' mistakes. Because of her Chinese identity, Rose always feels humiliated. She confesses:

What furniture should we buy, where we should go on vacation, my husband Ted always decided. Sometimes we exchanged ideas, but in the end, I always said: "You decide for Ted". We didn't even exchange ideas afterward, Ted decided. So I ignored everything around me and focused only on what was in front of me: my T-square, my X-acto knife, my blue pencil (Tan, 1990, p. 117).

Rose always stays passive in her marriage. Because she is Chinese, but Ted is American. She always tries to please Ted, and she acts according to his desires:

Ted is the incarnation of America. The sovereign is the American Ted, and the background Chinese Rose. But Rose chooses to embrace the American identity and act according to their culture, which convinces Americanism. However, when she starts to see the facts, he realizes her true identity and finds the true "Rose" in her Chinese identity. (Tanrıtanır & Görürüm, 2017, p. 124).

When Rose's mother An-Mei realizes her daughter's thoughts, she tries to support her, and Rose finds her identity and saves her marriage as a strong Chinese-American woman.

Ying Ying St.Clair -mother of Lena- marries Clifford St.Clair in America. For years she lets Clifford mistranslate her sentences with a Chinese accent, gestures, and silences. Then, finally, she tells about her unhappy situation:

St. Clair took me to America, where I live in smaller houses than the house in China. I wore the big clothes of the Americans. I did all the housework like a house servant. I learned how to live in the West. I tried to speak in a thick language so that my Chinese accent would not be evident. I raised a girl but taught her the American ways, not Chinese (Tan, 1990, p. 241).

When she realizes Lena's marriage problems, she tries to help her so that she doesn't make the same mistakes. Ying Ying St. Clair tries to explain to her daughter that she always tries to please her because she

married an American, but there is no end to it. When Ying accepts herself as a multicultural one, then she gets out of this situation. When her daughter experiences the same situation, she tries to help her to notice this situation early. When the daughter understands her mother, the bond of communication between them gets stronger.

Amy Tan in *The Joy Luck Club* gives multicultural effects with language differences as well. The novel focuses on the relationships between intercultural mothers and daughters…There is a lack of communication between mothers and daughters because of linguistic barriers. They try to communicate with each other, still, in circumstances, it results in misunderstanding (Latha & Primlyn, 2018, s. 270). When the daughters want to speak English with their mothers, mothers talk with them in Chinese. It is clear what Lena says:

Since my mother was born near Shanghai, she could speak Mandarin and a little bit of English. My father, who hardly speaks Chinese, wanted my mother to learn English. Together, my father and mother communicated with moods and gestures, gaze and silence, hesitant The Chinese and English words are confused in my mom's mouth 'Show Buchulai'. My father fixed them. (Tan, 1990, p. 106). The multicultural family structure, which makes it difficult for Lena to communicate within herself, makes it difficult for her to find her own identity and communicate.

Jing-mei complains that they cannot communicate properly in the family. Although my mother is Chinese, we couldn't get along, and we tried to make sense of what we wanted to say and translated it ourselves. While I seemed to hear less than what my mother said, my mother would hear more than I said. (Tan, 1990, p. 37). Like cultural differences, language differences are also barriers to their communication and understand of each other. According to Thambi:

Tan emphasizes the embarrassment, emotional and cultural separation of her daughters from the traditions of Chinese mothers. The girls say they hate their mother's bragging about their bright and Chinese clothes and their savings. (51).

The daughters are embarrassed because of their Chinese mothers and heritage. The mothers have similar behavior. For example, they try to find their daughters' flaws and be harsh to fix and teach them. Nevertheless, their American-born daughters' don't understand them. Even they do not know or want to speak Chinese with them. However, towards the end of the book, girls realize their mothers feel and how they want the best for them. As the novel progresses and children learn about their cultural heritage and their history while experiencing their own problems, they realize that what their mothers taught them is for their benefit (Pratiwi,

Sili, & Wati, 2017, p. 110) and they become more at peace with their multicultural identity.

Nevertheless, Amy Tan reflects that you can't resist assimilation if you live as an immigrant with a multicultural identity. In *The Joy Luck Club*, even if mothers and daughters begin to understand each other, they cannot escape being assimilated with their multicultural structure. When they accept their multicultural identity, the problem has been solved. Moreover, their communication problems with each other disappear and they start to understand each other.

Multiculturalism in *Caramelo* by Sandra Cisneros

Sandra Cisneros was born in 1954 in Chicago, America. She is a poet, author, and lecturer. She reflects her multicultural life in her works. *Caramelo* was written in 2002 by Mexican-American writer Sandra Cisneros. One of the critics Madsen has described, the effort to make sense of an intercultural identity in Cisneros' works is complicated by the effort to challenge the values of deep-rooted patriarchal families. (Madsen, 2010, p. 77). However, although there are parts in Cisneros Caramelo where she opposes the patriarchal order, he emphasizes searching for identity across borders. Cisneros and his family have always lived schizophrenia lives in American society as Mexican but do not belong to either culture. They are not Mexicans, but they're not Americans either. She feels that she couldn't live in Mexico because her ideas are too Americanized. But, on the other hand, she feels she can't live in America as well, or she does live here but, in some ways, almost like a foreigner. She confesses it's extraordinary straddling these two cultures to define some middle ground so that you don't commit suicide or don't become so depressed or don't self-explode. In *Caramelo*, Cisneros mentions a family stuck between two cultures.

The protagonist of the story, also known as "Lala" Celaya, is the only daughter of a family with seven children like Cisneros. Cisneros describes the story from the eyes of Celaya. Celaya and her family always travel from Chicago, where they live, to Mexico City, where they are from and where their Awful Grandma lives – Soledad-. Celaya's narrative is the struggle between the past and the present in search of his cultural heritage, family history, and his own identity. Lala uses a traditional caramel-colored family shawl (reboza Caramelo) worn by her grandmother as a meeting point and metaphor of her family background, multiculturalism and her personal experiences. (Szeghi, 2014, p. 177). *Caramelo* also includes many footnotes because it also touches on the turbulent history of Mexico –the Mexican-American war in 1848-. Cisneros also includes the history of Mexico in *Caramelo* to understand and reflect her multiculturalism. However, she focuses more on finding and interpreting identity across

borders. Celaya tells about her Awful Grandmother that nobody loves her and her Americanized children.

The main reason why Cineros' works differ from Chicano texts that try to preserve their other cultural differences is that they reveal the difficulties and important differences within the Mexican / Chicano community. Caramelo in particular emphasizes the conflict between Mexican American people and the attitudes of Mexicans. (Estil, 2016, p.47). Cisneros accomplishes this by having his characters travel physically and spiritually between Mexico and America.

As Estil asserts, Cisneros tries to depict the community's struggle and multiculturalism effects on society. In the novel, Celaya's father Inocencio says, And the Mexicans from over here more American than anything and us Mexicans from over there even more Mexican than Zapata (Cisneros, 2002, p. 217). He tries to show his dissatisfaction about assimilation.

In the novel, there are also border issues. The constant travel of Celeya and her family to and from Mexico makes their sense of identifying and belonging very difficult. Moreover, traveling across the border reminds Celaya and her family of their own identity and heritage. According to Popa:

Although Celaya's intercultural travels are not short, her family and herself are accustomed. This journey strengthens his ties with Mexico and enables Celaya to make sense of his hyphenated and multicultural identity (Popa, 2010, p. 34). This journey Celaya makes with his family is a journey of realizing and digesting his own multiculturalism.

In the beginning, Celaya’s doubleness (Mexican-American and English-Spanish) seems as a disadvantage, but after she realizes her multiculturalism and identity.

Amy Tan builds up Joy Luck to keep on their cultural heritage. As for Cisneros, she keeps on their cultural heritage with the journey between Mexico and America. In the last section of the book, Celaya states her feeling about coming from a Mexican family. When she refers, she is embarrassed for being Mexican and asks her father, Inocencio Reyes, about his past. He says, You don't want people to think we're shameless, do you? (Cisneros, 2002, p. 430). It can be understood that he also has under the pressure of the American culture.

Cisneros, like Tan, uses language differences effects to show multiculturalism and cultural diversity as well. For example, in *Caramelo*, There are many Spanish words, and Cisneros doesn't feel that these Spanish words need to translate into English because she tries to keep on her own identity and heritage:

In the novel, Soledad speaks mainly Spanish and occasionally English. Cisneros does not translate the sentences he has set up in Spanish that lead Soledad to his past. It offers Celaya the opportunity to understand its history and language. In a way, Celaya represents the hybrid character Cisneros has included in its entire works. Celaya and Soledad use English differently, and Cisneros uses it to address the multicultural society. (Peart & Lecher, 2016, p. 5)

It can be argued that Cisneros uses both her multicultural identity and bilingualism to show how an immigrant lives in America with her Mexican heredity in *Caramelo.* At the same style but with slight differences, Amy Tan does it in *The Joy Luck Club*.

Conclusion

America has hosted different cultures throughout history and has become one of the multicultural countries. The multicultural structure of America has also affected its literature. Thus, there are lots of authors from different cultures, such as Amy Tan and Sandra Cisneros. Both of them have been affected by their own multicultural lives, and they have reflected their observation about culture and their own heritage to their works with slight differences.

Amy Tan and Sandra Cisneros use Chinese/Mexican-born mother/s and American-raised daughter/s to show multicultural effects. While Amy Tan emphasizes multiculturalism by focusing on the relationship between mothers and daughters, Sandra uses the multigenerational family relationships to emphasize. Unlike Cisneros, Tan gives the reader a chance to know what mothers and daughters feel separate by making every character a narrator. It is clear that their relationship efficiency and understanding what they are feeling about their Chinese heritage. However, Cisneros tells the story only in the eyes of Celaya. It is only known her feeling and thoughts according to her observation. Both writers also show how they connect with their own heritage and culture. Amy does this by building up the Joy Luck Club. Sandra does this by traveling between Mexican-Americans. These journeys and clubs give a chance to heroes to keep on and not forget their culture in America. Both Tan and Cisneros emphasize differences between the first generations born in their homeland and the second generations born in America. Both think that second-generation have a problem accepting their own heritage and culture. They have stuck between two cultures. They are even ashamed of their own culture and heritage.

The language differences in the novels are adequate to show multicultural effects. This situation is reflected by not only Tan but also

Cisneros. Tan states in her second-generation characters –daughters- don't want to speak and learn Chinese. Tan emphasizes that when they have different languages with their mothers, they cannot understand each other and their own culture. In *Caramelo*, when one of Celaya's brothers speaks Spanish, she warns him about speaking only English. Cisneros in *Caramelo* also uses many Spanish words that Cisneros does not translate into English because she wants to connect with her heritage and emphasizes her multiculturalism.

It does not seem possible for the daughters growing up in America to understand the Chinese or Mexican culture only through the stories told by their mothers or only through their visits. In the beginning, It seems that neither Tan nor Cisneros is optimistic about the solution to this problem. However, they emphasize that when characters stop trying to define the concept of their own identity, where they belong and accept their multiculturalism, they can solve the problems of culture, language and identity more easily.

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Chapter 23

FORECASTING FOREIGN TRADE FLOW OF TURKEY IN TERMS OF GEOGRAPHICAL COUNTRY GROUPS WITH HIERARCHICAL TIME SERIES APPROACHES

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1. Introduction

Trade flow of a country is an important subject for economists, politicians, companies and academicians. Trade flow is the value of goods and services traded of a country, consisting both imports and exports. It influences other economic indicators of the country, hence influences the economic policy. Since trade flow is an important economic indicator for countries, modeling and predicting trade flow is a significant research area.

Most of the foreign trade literature pay attention to bilateral trade modeling or trade flow modeling with multivariate approaches. Gravity model developed by Tinbergen (1962) is usually used for bilateral trade researches. Although gravity model is popular for its empirical power, some economists are controversial because of its insufficient theoretical justification. Most of the economics literature about gravity equation of bilateral trade is filled with theoretically justifying or disproving studies of the model (Circlaeys, Kanitkar and Kumazawa, 2017). On the other hand, trade flow literature is filled with multivariate macroeconomic models, searching for causal relationships mostly with other economic indicators. There are very few studies using time series analysis for foreign trade modeling and forecasting.

Time series modeling uses past (lagged) values of a variable to predict the future values. On the other hand, macroeconomic models relate the variable with some other variables. However, time series analysis does not need to be based on economic theory. Also, while it is unable to state a causation, time series approach could produce quite accurate forecasts. Especially when causal relations are less clear, time series analysis might be an effective methodology. Since causal relationships in the international economics are various and multidirectional, time series modeling could be a better way to model and forecast trade flow (Keck, Raubold and Truppia, 2010).

Recently some researchers have been used time series approaches to explain the trade behavior and make forecasts. Keck et al. (2010) employ a time series model to foreign trade growth data, which is an autoregressive distributed lag model of imports with GDP as an additional predictor using a GARCH estimation. Wong, Tu and Wang (2010) uses fuzzy time series methods for Taiwan export data and compares the results with ARIMA and Vector ARMA models. Wang (2011) applies fuzzy time series and ARIMA models to Taiwan export. Farooqi (2014) models annual total import and export data of Pakistan with ARIMA. Al-Zyoud and Elloumi (2017) analyses trend and direction of exports and imports of Canada using log-linear regression in conjunction with ARIMA model.

In some cases, time series are hierarchically organized and can be aggregated at several different levels in groups based on some features. These time series are called hierarchical time series (Hyndman, Ahmed, Athanasopoulos and Shang, 2011). Besides standard univariate time series models, hierarchical time series modelling needs an approach for aggregation consistency of the hierarchy. Therefore, researchers developed and used different approaches to model and forecast hierarchical time series data. Main models for hierarchical time series in the literature are top-down, bottom-up, middle-out and optimum combination models. Researchers use hierarchical time series models for different areas, i.e. tourism (Hyndman et al., 2011; Athanasopoulos, Ahmed and Hyndman, 2009), inflation (Capistran, Constandse and Ramos-Francia, 2010), spare parts (Moon, Hicks and Simpson, 2012), oilseeds and pulses (Mitra, Paul and Pal, 2017), electricity consumption (Silva, Souza, Oliveira, Lourenco and Calili, 2018), mortality (Li, Li and Lu, 2019) etc. Also, Mahkya, Ulama and Suhartono (2017) applies bottom-up hierarchical time series approach to export data of Central Java. In the study, export data is disaggregated into 21 commodities and a bottom-up approach is used to forecast with three different base models.

Geographic proximity and sharing a common geography of countries have significant effects on foreign trade, not just trade between these countries, but also trading of these countries with others. Gravity equation of trade suggests that economic size, distance, political and institutional similarities (or distance), as well as cultural similarities (common religion, common language etc.) are important parameters of bilateral trade (Armstrong, 2007; Anderson and Wincoop, 2003). While neighbor countries sharing same geography might have similarities in all above parameters, grouping countries in terms of geography and analyzing trade characteristics with these group of countries is a common practice.

The purpose of the proposed study is applying hierarchical time series models to Turkey's trade flow data, and comparing the results of different hierarchical time series approaches with different base models. Trade flow data, which is total of imports and exports, is disaggregated into five time series according to geographical country groups traded with. Four hierarchical time series approaches are used with three base models, namely, ARIMA, exponential smoothing and naïve models. Forecasting target is chosen as twelve months of year 2018. One, three, six, nine and twelve steps further forecasting performances are compared for the same forecasting target. Also forecasting performances of hierarchical time series approaches and base models are compared individually.

2. Methodology

2.1. Hierarchical Time Series Approaches

Time series sometimes can be disaggregated into sub-series according to some attributes to make better analysis. These disaggregated series also might be disaggregated further into finer sub-series. A group of time series in a hierarchical structure with aggregation consistency is called hierarchical time series. In Figure 1, a representation of one level disaggregated hierarchical time series having five sub-series in level 1 is presented.

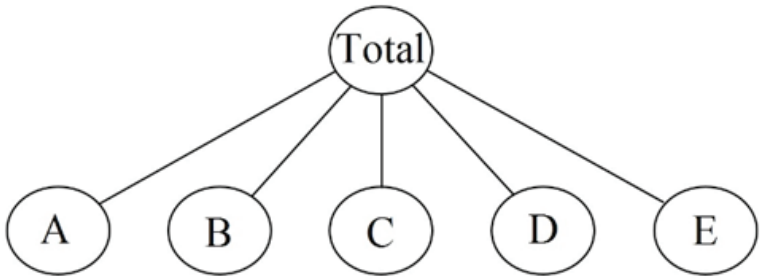

Figure 1. *Representation of one level hierarchical time series structure with five sub-series.*

The aggregation consistency of the series structure presented in Figure 1 is, $Y_t = Y_{A,t} + Y_{B,t} + Y_{C,t} + Y_{D,t} + Y_{E,t}$. Y_t is the total time series and $Y_{A,t}, Y_{B,t}, Y_{C,t}, Y_{D,t}, Y_{E,t}$ are disaggregated time series data at time t. The aggregation consistency also could be represented in matrix form as shown at Eq. 1.

$$\begin{bmatrix} Y_t \\ Y_{A,t} \\ Y_{B,t} \\ Y_{C,t} \\ Y_{D,t} \\ Y_{E,t} \end{bmatrix} = \begin{bmatrix} 1 & 1 & 1 & 1 & 1 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} Y_{A,t} \\ Y_{B,t} \\ Y_{C,t} \\ Y_{D,t} \\ Y_{E,t} \end{bmatrix} \tag{1}$$

Or, in a more compact form,

$$y_t = S.y_{K,t} \tag{2}$$

In Eq. 2, y_t is a vector of observations in the hierarchy at time t, S is the summing matrix and $y_{K,t}$ is the vector of observations in the bottom level. Main constraint in hierarchical time series modeling is that final forecasts of all series should provide hierarchical aggregation consistency of the series. Most of the time, obtained individual

forecasts of the series do not maintain aggregation consistency of the hierarchy. Therefore, researchers have developed and used some approaches to be able to model and forecast hierarchical time series that preserve the hierarchical consistency in the data. In this study, bottom up, top down and optimal combination approaches are used.

Bottom up approach first gets the time series forecasts of the hierarchically lowest disaggregated level. After obtaining the bottom level forecasts, upper level forecasts are found by summing the forecast. Therefore upper forecasts are simply aggregates of the bottom level forecasts. Bottom up approach could be represented as in Eq. 3.

$$\hat{y}_t = S \cdot \hat{y}_{K,t} \tag{3}$$

In Eq. 3, $\hat{y}_t$ is the upper level forecast, $\hat{y}_{K,t}$ is lower level forecast and S represents the summing matrix.

In contrast of bottom up approach, in top down modelling, first step is to obtain the hierarchically highest level forecast. After finding the most aggregate forecast, lower level forecasts are found by disaggregating the upper forecast using some proportions through hierarchically lowest level. There are different approaches to top down model in terms of how to disaggregate the upper level forecasts. Most used top down approaches are top down gross-sohl method a (TDGSA), top down gross-sohl method f (TDGSF) and top down with forecast proportions (TDFP). TDGSA and TDGSF methods are based on the work of Gross & Sohl (1990). In TDGSA model, proportions of the lower level forecasts are obtained by taking the average of the historical proportions of the lower level series. First, historical proportions of the series are calculated, then the average of historical proportions are taken. Opposite of the TDGSA approach, TDGSF model first takes the historical averages of the series, and then calculates the proportions using the averages. Unlike the two former approaches, TDFP model (Athanasopoulos et al., 2009) does not use historical values directly. Instead, for each lower level series the proportions of univariate time series forecasts of lower level series are used. Top down approaches could be written as in Eq. 4.

$$\hat{y}_t = S \cdot \hat{y}_{K,t} \cdot p_j \tag{4}$$

In Eq. 4, p_j is the proportions of the series, $\hat{y}_t$ is the upper level forecast, $\hat{y}_{K,t}$ is lower level forecast and S represents the summing matrix.

Optimal combination approach uses all available information to get optimal forecasts for all levels. In this approach, first, independent univariate forecasts for all series in all levels are obtained. The forecasts found are not in aggregation consistency of the hierarchical structure. This problem is solved by changing the forecasts such that new forecasts are as close as possible with independent forecasts and at the same time consistent with the hierarchical aggregation rules. Presented in the study of Hyndman et al. (2011), optimal reconciliation process uses linear regression and a weighted least square solution to find optimal forecasts. Optimal reconciliation approach is represented with Eq. 5. For a detailed information one can refer to the work of Hyndman et al. (2011).

$$\hat{y}_t = S(S'S)^{-1} S' \hat{y}_t \tag{5}$$

2.2. Base Forecasting Models

- ARIMA

Autoregressive integrated moving averages (ARIMA) model is based on ARMA model, in which autoregressive (AR) and moving averages (MA) models are used together. ARMA model assumes a time series data is dependent to lagged values of the data and also lagged error values of the time series. ARMA model cannot be applied to non-stationary time series. Different from ARMA, ARIMA model transforms a non-stationary time series into a stationary one by differencing process. The degree of differencing to transform the time series into a stationary one, is shown with d.

In ARIMA modelling process, the non-stationary time series is converted to a stationary one by successive differencing processes. Then, ARMA model is used for this stationary time series. For a d degrees differenced stationary time series, w_t, of a non-stationary time series, x_t, where $\nabla^d x_t = w_t$, p, degrees of autoregressive and q degrees of moving averages ARIMA (p,d,q) model is presented in Eq. 6.

$$w_t = \varphi_1 w_{t-1} + \ldots + \varphi_p w_{t-p} + a_t + \theta_1 a_{t-1} + \ldots + \theta_q a_{t-q} \tag{6}$$

where, a_t is error term for time t, $\varphi_1, \varphi_2, \ldots, \varphi_p$ are coefficients of lagged values and $\theta_1, \theta_2, \ldots, \theta_q$ are coefficients of lagged error values.

- Exponential Smoothing

Exponential smoothing is a smoothing technique mostly used for time series data. Different from simple moving average,

in which, past observations are weighted equally, exponential smoothing process assigns exponentially decreasing weights to the past observations. A representation of the exponential smoothing is in Eq.7.

$$s_t = \alpha x_t + (1-\alpha) s_{t-1} \tag{7}$$

where, $t>0$, $0<\alpha<1$ and α is called the smoothing factor.

Over the years, numerous study have been done on exponential smoothing modeling and forecasting of time series data. According to studies of Hyndman, Koehler, Snyder and Grose (2002) and Hyndman, Koehler, Ord and Snyder (2008), in exponential smoothing methodology it is assumed that the time series have three underlying data components: error, trend and seasonality. Error could be additive or multiplicative, whereas, trend and seasonality could be additive, multiplicative or none. Best known exponential smoothing methods are simple exponential smoothing (no trend and no seasonality), Holt's linear model (additive trend, no seasonality) and Holt-Winters' additive model (additive trend, additive seasonality).

- Naïve Model

Random walk without a drift, so called, naïve model is used as a benchmark in this study. Random walk without a drift is actually ARIMA (0,1,0) model, which assumes that time series follow a random walk and best possible forecast is the last value of the time series. Therefore the naïve forecast is the last value of the series.

Another naïve model that can be used as a benchmark for seasonal time series is seasonal naïve (SNaïve) model. For this model best forecast is the same value of the last season. For example, in a monthly time series data, seasonal naïve forecast of the month May is the value of the May of the last year (Hyndman and Athanasopoulos, 2018)

3. Data

Data set consists of six time series, such that one of level 0 and five of level 1. Level 0, the aggregate time series, is monthly foreign trade flow data of Turkey, which is total value of imports and exports. Level 1 time series are monthly trade flow between Turkey and partner geographical country groups. Five geographical country groups are organized as Europe, Africa, America, Asia, Oceania and others. All data is gathered from official website of Turkish Statistical Institute (www.turkstat.gov.tr). Turkish foreign trade statistics are presented according to two

different systems: general and special trade systems. Special trade system is a narrower concept. Customs warehouses, all types of free zones and premises for inward processing are excluded from the statistical territory by the definition; thus only imports and exports of the free circulation area are recorded. In this study all trade flow data is in terms of special trade system. In Table 1, abbreviations of the bottom level time series, consisting data and statistical codes of the country groups.

Time series data starts from January 1969 and ends with December 2018. Forecasting target is the twelve months of year 2018. Descriptive statistics of the time series data excluding forecasting target is in Table 2.

Table 1. *Abbreviations of the Bottom Level Time Series*

ABBREVIATION	COUNTRY GROUP	CONTENT	CODE
TOT	TOTAL	Total Trade Flow	-
EUR	EURO	European Union 28	5114
		Other Europa (Exc. EU)	5190
AFR	AFRICA	North Africa	5210
		Other Africa	5290
AME	AMERICA	North America	5310
		Central America And Caribbean	5320
		South America	5330
ASI	ASIA	Near And Middle Eastern	5410
		Other Asia	5490
OCE	OCEANIA AND OTHERS	Australia and New Zealand	5510
		Other Countries of Oceania and Polar	5590
		Countries not Specified and Military Zones	5990
		Free Shops	5991
		Free Zones	5992
		Border Trade Center	5993

Table 2. *Descriptive Statistics (Data is in thousands of USD)*

	EUR	AFR	AME	ASI	OCE	TOT
No of Data Points	588	588	588	588	588	588
Min	61239	188	11390	6269	159	87514
Max	19400204	1982961	3296225	12023519	1958691	36930242
Median	2138157	162299	392834	779381	43047	3436761

Mean	5311862	441701	752294	2501135	366031	9373022
Std. Dev	6184336	546614	849825	3456267	503387	11421070
Skewness	1,0076	1,2935	1,2064	1,4217	1,2272	1,1426
Kurtosis	-0,5679	0,1856	0,2200	0,4726	0,2746	-0,2529

4. Results

In this study, hierarchical time series models are applied to Turkey's foreign trade flow data. Monthly trade flow time series data is disaggregated into five bottom level time series according to geographical partner country groups. In level 0 of the hierarchical structure there is total trade flow, whereas in level 1 there are five trade flow time series in geographical groups.

All hierarchical time series modeling and forecasting processes are done with R statistical software (2016). Package hts presented in the studies (Hyndman, Athanasopoulos and Shang, 2013; Hyndman, Wang, Lee, and Wickramasuriya, 2016) is used for hierarchical modeling and forecasting. The hierarchical forecasting approaches used are bottom up (BU), top down gross-sohl a (TDGSA), top down gross-sohl f (TDGSF), top down with forecasted proportions (TDFP) and optimal combination/ reconciliation (COMB) models. Since hierarchical structure has only two levels, middle out (MO) approach cannot be used.

Base forecasts are obtained from ARIMA, exponential smoothing (ETS) and random walk (RW) models using the settings as implemented in the forecast package for R (Hyndman, 2017) and described in Hyndman and Khandakar (2008). Random walk base model is used for benchmark forecast purposes. For naïve forecasting standard random walk model with same forecast horizon is used, whereas, for seasonal naïve forecast twelve step further naïve model is employed since data is in monthly frequency.

Table 3. *Average MAPE Values of Forecasts for Different Forecast Horizons*

Forecast Horizon	**Hierarchical Level**	**Base Model**	**BU**	**TDGSA**	**TDGSF**	**TDFP**	**COMB**
1 Step Further	Level 0	ARIMA	5,30%	4,92%	4,92%	4,92%	5,01%
	Level 1		9,17%	19,83%	11,88%	8,94%	8,98%
	Level 0	ETS	6,05%	5,61%	5,61%	5,61%	5,73%
	Level 1		11,43%	19,75%	11,73%	11,13%	11,24%
	Level 0	Naïve	9,18%	9,18%	9,18%	9,18%	9,18%
	Level 1		12,16%	20,77%	13,39%	11,89%	12,16%
	Level 0	SNaïve	10,57%	10,57%	10,57%	10,57%	10,57%
	Level 1		13,94%	21,44%	14,04%	13,94%	13,94%

3 Steps Further	Level 0	ARIMA	7,45%	6,89%	6,89%	6,89%	7,14%
	Level 1		11,18%	19,85%	11,62%	10,72%	10,87%
	Level 0	ETS	7,88%	7,57%	7,57%	7,57%	7,65%
	Level 1		12,27%	19,78%	11,37%	12,09%	12,12%
	Level 0	Naïve	8,51%	8,51%	8,51%	8,51%	8,51%
	Level 1		14,23%	20,92%	14,00%	14,23%	14,23%
	Level 0	SNaïve	10,57%	10,57%	10,57%	10,57%	10,57%
	Level 1		13,94%	21,44%	14,04%	13,94%	13,94%
6 Steps Further	Level 0	ARIMA	10,89%	10,34%	10,34%	10,34%	10,58%
	Level 1		12,84%	20,09%	11,79%	12,44%	12,53%
	Level 0	ETS	10,41%	10,51%	10,51%	10,51%	10,47%
	Level 1		13,00%	20,39%	12,32%	13,02%	13,03%
	Level 0	Naïve	8,74%	8,74%	8,74%	8,74%	8,74%
	Level 1		13,16%	20,41%	11,98%	13,16%	13,16%
	Level 0	SNaïve	10,57%	10,57%	10,57%	10,57%	10,57%
	Level 1		13,94%	21,44%	14,04%	13,94%	13,94%
9 Steps Further	Level 0	ARIMA	12,36%	12,86%	12,86%	12,86%	12,52%
	Level 1		14,38%	21,41%	13,60%	14,57%	14,42%
	Level 0	ETS	11,81%	12,00%	12,00%	12,00%	11,91%
	Level 1		14,76%	21,06%	14,87%	14,87%	14,78%
	Level 0	Naïve	10,33%	10,33%	10,33%	10,33%	10,33%
	Level 1		14,76%	21,37%	13,37%	14,76%	14,76%
	Level 0	SNaïve	10,57%	10,57%	10,57%	10,57%	10,57%
	Level 1		13,94%	21,44%	14,04%	13,94%	13,94%
12 Steps Further	Level 0	ARIMA	13,10%	14,23%	14,23%	14,23%	13,70%
	Level 1		15,29%	21,82%	14,41%	15,63%	15,27%
	Level 0	ETS	12,59%	12,19%	12,19%	12,19%	12,37%
	Level 1		16,43%	21,70%	14,36%	16,27%	16,28%
	Level 0	Naïve	10,57%	10,57%	10,57%	10,57%	10,57%
	Level 1		13,94%	21,44%	14,04%	13,94%	13,94%
	Level 0	SNaïve	10,57%	10,57%	10,57%	10,57%	10,57%
	Level 1		13,94%	21,44%	14,04%	13,94%	13,94%

Model comparisons are done for five different time horizons, while forecasting target is constant. Each target data is forecasted with one step, three steps, six steps, nine steps and twelve steps further forecasting. All lagged data points are used for one step further forecasting, whereas, presumably lesser data points are used for multistep forecasts for the same forecasting target. There are 12 forecasting target data, which are monthly trade flow data of 2018 from January to December. Five hierarchical time series approaches, three base models and five different time horizons are applied to forecast twelve data points for each six time series. Therefore, 3600 forecasts are done for the study.

Table 3 shows average mean absolute percentage error (MAPE) values of forecasts for different time horizons. Performance of the models are evaluated according to levels. Therefore, performance of level 0 total time series forecasts and average performance of five level 1 time series are evaluated individually.

In Table 3, it can be seen that in one step and three steps further forecasting results TDFP approach with ARIMA base model gives best results for both total series and disaggregated series. In six step further forecasting best results for total series are obtained with TDGSF model with naïve model, whereas for disaggregated series TDGSF with ARIMA gives forecasts with minimum error value. In nine steps further forecasting, TDGSF with random walk gives best results whereas, in twelve steps further modeling best models are BU, TDFP and COMB approaches with naïve model.

It is also possible to compare the hierarchical time series approaches' performances through different forecast horizons. Average error values of the hierarchical time series (HTS) approaches according to different forecasting horizons are in Table 4 and Figure 2. Average error values are calculated such that the weight of the level 0 is equal to level 1.

Table 4. *Average MAPE Values of HTS Approaches for Different Forecast Horizons*

HTS Approach	1 Step	3 Steps	6 Steps	9 Steps	12 Steps
BU	8,88%	10,25%	11,51%	13,07%	13,65%
TDGSA	13,34%	13,92%	15,08%	16,50%	16,99%
TDGSF	9,45%	10,00%	10,95%	12,84%	13,30%
TDFP	8,61%	10,00%	11,37%	13,23%	13,81%
COMB	8,72%	10,09%	11,42%	13,12%	13,69%

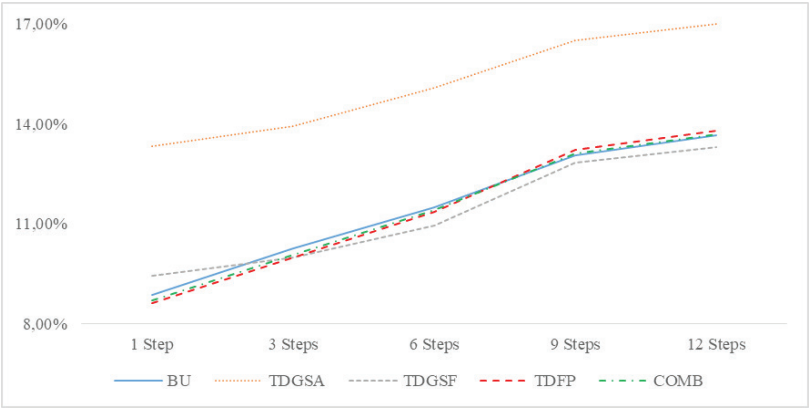

Figure 2. *Average MAPE Values of HTS Approaches for Different Forecast Horizons*

It is observable from Table 4 and Fig.2, TDGSA approach's performance is very low with respect to other approaches. Also in short horizons TDFP approach is the best, whereas for long horizons TDGSA approach shows good performance. Another comparison could be made within the base models ARIMA, exponential smoothing, naïve and seasonal naïve models through different forecasting horizons. Table 5 and Fig.3 show base model performances according to different time horizons.

Table 5. *Average MAPE Values of Base Models for Different Forecast Horizons*

Base Model	1 Step	3 Steps	6 Steps	9 Steps	12 Steps
ARIMA	8,39%	9,95%	12,22%	14,18%	15,19%
ETS	9,39%	10,59%	12,42%	14,01%	14,66%
Naïve	11,63%	12,02%	11,55%	13,06%	13,02%
SNaïve	13,02%	13,02%	13,02%	13,02%	13,02%

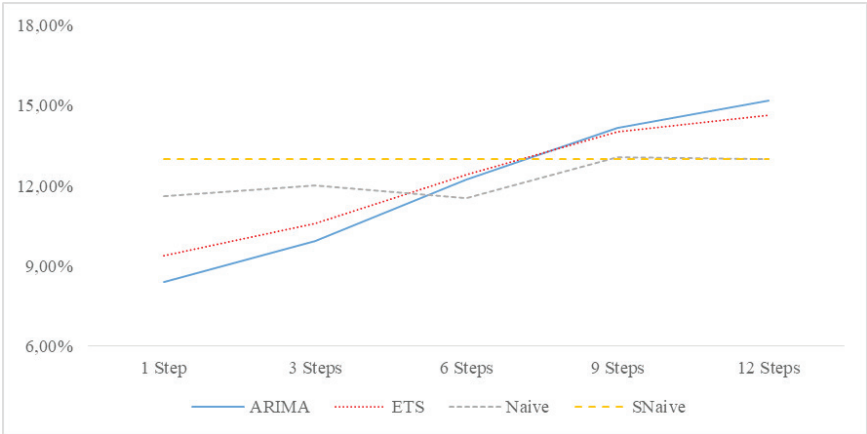

Figure 3. *Average MAPE Values of Base Models for Different Forecast Horizons*

It could be seen from Table 5 and Fig.3 that ARIMA base model gives better results in one step and three steps further forecasts. But for longer forecast horizons first naïve model and then seasonal naïve model takes the lead.

5. Conclusion

Hierarchical time series forecasting is modeling and forecasting multiple time series with a hierarchical aggregation consistency simultaneously. It takes a base time series forecasting model and an approach for constructing hierarchical aggregation consistency between forecasts. In this study, five different hierarchical forecasting approaches

and three base time series models are used for comparison purposes. Hierarchical time series forecasting models are applied to Turkey's trade flow data, where, total trade flow is disaggregated into five time series according to trade flow with geographical country groups.

Time series data is monthly trade flow and forecasting targets are the twelve months of year 2018. Forecasting targets are constant with different forecasting horizons. For example a one step further forecast uses all past data from the forecasting target, whereas, a three steps further forecast uses all past data from the beginning until two lagged past data of the forecasting target. All modeling and forecasting processes are done with R statistical programming language using hts package.

Obtained results show that TDFP model with ARIMA shows great performances especially for short term forecasting horizons. In one step and three steps further forecasting, ARIMA with TDFP approach is superior to all other models. Also, comparing hierarchical time series approaches and base models individually through different forecasting horizons, TDFP approach and ARIMA base model gives best results for short terms individually. While forecasting horizon extends, TDGSF approach and naïve base model performances are getting better than other model and approaches. In nine and twelve step further forecasting, seasonal naïve model shows best performances. Since naïve and seasonal naïve models are used as forecasting benchmarks, proposed study shows ARIMA based TDFP model is an effective forecasting model particularly for shorter forecasting horizons.

An important aspect of the results is the high performances of two top down models in general: TDFP and TDGSF. Since top down models forecast the aggregated level 0 time series directly, showing good performance in total trade flow forecasting is an expected results. On the other hand, top down models use some proportions to calculate the disaggregated series forecasts, which is not direct forecasting of these time series. Bottom up model, which applies base models directly to disaggregated level 1 series, stays behind of the two top down models in terms of forecasting performance for both short term and long term forecast horizons. Another important result of the study is the distinctive low performance of TDGSA model. Since other two top down models show very good performances in different time horizons, TDGSA approach shows bad forecasting performances independent from the forecast horizon.

Foreign trade flow data is a useful subject for hierarchical time series analysis. Trade flow of a country could be disaggregated into different time series in terms of different subjects as well as geographical country groups. Some examples are import-export, economical country groups,

traded goods etc. Therefore it is open for further research of hierarchical time series analysis of foreign trade. Also applying and comparing hierarchical time series models to more different subject areas will give more insight for both hierarchical time series approaches and areas of application.

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Chapter 24

THE ROLE OF HOMELESS SHELTERS IN HOMELESS INDIVIDUALS' SOCIAL LIFE: ISTANBUL SAMPLE*

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1. Introduction

The social isolation of homeless individuals makes it imperative for them to develop new life strategies. These strategies include information sharing, space and security strategies and resource sharing. Each strategy causes homeless individuals to enter a new socialization process during the homelessness process, and social relations belonging to the homeless can take different forms in the homelessness process. Among these forms, the social networks created in the homeless shelters that enable them to undergo the homelessness process in the most favorable conditions and to get rid of the homelessness, provide a positive change in the lives of individuals.

While social networks on the street seem to save the day, the current situation in the homeless shelters should include various strategies in the context of preparing for a better future. The relationship between the homeless shelters at the specified level, the quality of the services provided for homeless individuals and the positive changes in the social life of homeless people turns out to be the most effective tool for ending the homelessness.

1.1. Subject of the Research

The phenomenon of homelessness causes many problems in individuals' lives. Among these, there are problems such as domestic, economic, psychological and medical that affect the life of the individual. In this case, regardless of the degree of the problem's cause, the social life of the individual, which is a social entity, undergoes a negative change. In this study, the subject of the research is how social relationships of homeless individuals are determined and how they change before and during the homelessness process, and what is the place of homeless shelters in this change.

1.2. Purpose and Importance of the Research

The purpose of this study is to determine the level of influence of homeless shelters on the social lives of homeless individuals. Analyzes and results achieved within the scope of the findings obtained; makes the research important in terms of creating concrete outcomes such as improving the existent services, ending homelessness and ensuring the integration of homeless individuals into the society.

1.3. Scope of the Research

In the developed and underdeveloped countries, the phenomenon of homelessness has become an increasing social problem. The phenomenon

of homelessness, which has become more visible especially in metropolitan cities, arises due to the reasons such as poverty, unemployment, and family problems in individuals living in the metropolitan area, as well as individuals immigrating from abroad. This study covers the individuals who live in the homeless shelters of Istanbul where the most cases of homelessness phenomenon is seen in Turkey.

1.4. The Question and Hypothesis of the Research

"How do homeless individuals make sense of their social lives?"

"Can the accommodation for homeless individuals whose social ties weaken in the process of homelessness be a tool for reconstructing the homeless individuals' ties with the society?"

"The shelter houses serve as a social bonding place for individuals who become homeless with the weakness of their social bonds."

Within the scope of this research, under the first title the definitions of homelessness, the causes of homelessness, the problems experienced by homeless individuals, how social lives of homeless individuals take shape are covered. Evaluations are made in a way that contributes to the purpose of the study and in line with the information obtained from the national and international sources of the literature. Under the second title the method of study is given. Information such as how the study was laid out, how the field research was conducted, how the findings obtained from individuals were classified are included. Within this scope, as a result of the interviews made with 8 homeless individuals, the analyses of how the social lives of homeless people in the homeless process is shaped and homeless shelter's contribution to social life in this process is included.

2. The Nature of Homelessness

Homelessness is the situation where individuals are deprived of a physical space to accommodate or are unable to survive in the context of bad living conditions. If homelessness is defined as not having a place to shelter in, it is understood that there is no meeting place, which can be seen as the severance of family ties and can be explained by the concept of release. According to Avramov (1996), homelessness is defined as the deprivation of the individual from a permanent residence. But in Springer (2000), the house is defined on the basis of a certain classification, and is evaluated in conditions of being left without a shelter, frequency of staying in shelters, duration of staying in shelters, life in poverty, benefiting from welfare systems and belonging to a certain class group.

According to Işıkhan (2002), homelessness is a phenomenon of being deprived of a place to stay during a certain part of the day but mostly during the night, and as a result of this, it causes individuals to stay in places like parks, abandoned buildings, hospital lounges, emergency entrances, public transportation vehicles, etc. In the context of this phenomenon, individuals are disconnected from social relationships, society, and resources, and Glasser (1994) considers this situation on the basis of negative changes in social relations and security that occur in the event of decreasing or disappearing of the bonds that connect individuals to society. According to the U.S. Department of Housing and Urban Development (HUD), homelessness is described in four different ways by associating it with shelter houses:

1. The situation of individuals who stay in the homeless shelter,

2. The situation of individuals who stay with someone they know for 14 days or in places like hotels, motels,

3. The situation of individuals who, although temporarily placed in a house, are unlikely to remain here permanently,

4. Refers to the process in which the individual constantly has to be relocated due to neglect, abuse and lack of security, and a safe sheltering service cannot be reached in the absence of public and environmental support (National Alliance to End Homelessness, 2012).

While the definitions made include general definitions in the context of lack of shelter, specific definitions arising from the complex nature of homelessness must also be made in order to understand the nature of the phenomenon of homelessness. In the stated context, homelessness in literature is also defined by gender, homelessness process, number of people and age.

Homelessness by gender is divided into male homelessness and female homelessness. Homelessness is interpreted at a different level on the basis of both genders. The fact that women are more physically vulnerable than men makes it necessary for them to define homelessness as being open to all kinds of dangers on the basis of security. The experience of homelessness among men, especially married men, emerges as a result of the inability to fulfill their responsibilities and attempts to alleviate the stress of existing problems by getting away from home. While married women experience a change in their daily rituals in terms of the loss of domestic routine in the process of homelessness, male individuals experience status loss and authority weakness.

As stated in Somerville (1992), gender-based homelessness is defined on the basis of privacy and destitution. While the men not being a property

owner confronts them with homelessness at the bottom of poverty in a life away from sustainable economic resources, women, as stated in the KnoxHMIS 2014 report, experience process of homelessness as domestic violence, disintegration of family, and low labor force (knoxhmis.sworpswebapp.sworps.utk.edu). According to Baptista (2010), male individuals are more likely to face the streets when they become homeless, while women experience different levels of homelessness by staying with their relatives for a while in the context of hidden homelessness.

Classifying homelessness **on the basis of age** mostly emphasizes the classification made according to the lifelong course of development. This distinction made in the form of child homelessness, youth homelessness, adult homelessness can also be divided into several subclassifications. Classifications such as homeless children with families or homeless children without families, or middle-age homeless people, elderly homeless people in the context of adult homelessness, are possible. When homelessness is considered as a process, it is not possible to separate the classifications made in the context of the individual's life experience with sharp distinctions. Classifications are mostly made to reveal how each period was affected by the homelessness process.

Child homelessness is mostly evaluated according to the living standards of their peers who have a normal life, and it is defined as a phenomenon that appears in the absence of an environment suitable for the mental, physical, spiritual and social development of the children under the age of 12 years. In the specified context, homeless children experience more growth retardation compared to their peers, get sick more often and cannot continue their education due to permanent displacement (Cutuli, Herbers et al.; 2010: 145-151).

As stated in Smith (2010), **youth homelessness** is not a phenomenon that can be evaluated separately from child homelessness. Children who are deprived of a safe family and home environment in their childhood often fail to complete their education and have to experience many negative life experiences such as drug addiction, low paid jobs, unemployment, lack of secure social ties, and involvement in crime. In addition to this, the problems of homeless young individuals that arise in the level of communication within the family, when the dynamic structure of the youth is evaluated, may cause the young individual to search for the solution outside the home, first enter the secret homelessness process and then fall into a state of living without a roof.

Adult homelessness mostly reflects the general characteristic of homelessness, and individuals from this section are mostly head of the family, they also cause the general order of the house to deteriorate and

family homelessness when they become homeless. The causes of adult homelessness include childhood and youth traumas, unemployment, lack of regular income and mental / mental illnesses, substance abuse, and deterioration of family relationships (Herman, Susser et al., 1997: 249-255).

The time aspect of homelessness is defined as temporary and chronic. It is also possible to explain the definition made on the basis of time spent homeless, with the definition of temporary and chronic homelessness. The term, **chronic homelessness** is used in the literature for those who live in shelters, on the streets, with friends and are deprived of a stable residence for 2 years and more. Chronic homeless people constantly benefit from social assistance, service, health and justice mechanisms (Aubry et al., 2013: 910). Temporary homelessness, on the other hand, is caused by human hand or some processes presented by natural life. Economic crises, failure to pay credit debt, natural events such as bankruptcy, fire, earthquake, flood cause this kind of homelessness to arise.

Homelessness types includes much more than described here. Only some explanations about the general appearance of homelessness is made here as otherwise it would exceed the scope of the study. The main point that should be emphasized while making the types and definitions of homelessness is that each type of homelessness has a different effect on the lives of individuals, and it is compulsory to diversify the service organizations for these types of homelessness. This diversity plays a role in the social life of individuals and in the reconstruction of the bonds broken during the homelessness process.

Another point that needs to be emphasized is that homeless individuals with social support will be less exposed to the negative effects of the homelessness process. Social life at a certain level is a prominent and effective tool for ending the homelessness process. Since at the first level, the social lives of individuals are constituted by family, working environment and circle of friends, the shelters' role as an intermediary begins at this point. The resentment between the family and the individual often results in exclusion and abandonment. The lack or absence of adequate and sustainable support from the close circle of friends in the process of homelessness causes the loss of contact with the close circle. The unemployment of the individual ensures the loss of the social circle in the work environment, and the individual has to experience a socially isolated life at the level of family, inner circle and working life.

2.1. Social Relations of Homeless Individuals

In researches on homeless people, it is emphasized that social communities to which individuals belong affect their current housing

status. Factors affecting the homelessness process of homeless individuals include family and inner circle support, relationships with landlord and employers, the level of new social relationships created during the process of benefiting from homelessness and accommodation services (Shier, Jones et al., 2011: 458). According to Akyıldız (2020), Karaman (2019), Bekaroğlu Doğan (2018), Gümüş (2016), Küçük (2014) and Bektaş (2014), the findings obtained from the results of the research are that homeless individuals receive limited or no support from their family members and friends. Reasons for this include that the homeless person does not want to be a burden on their family and inner circle or that there is no such social capital.

Different forms may emerge when evaluating the social lives of homeless individuals. These are street-based social relationships in the early stages of homelessness and the social relationships that are formed in shelters. Both relationship systems can contain different life strategies.

2.1.1. Street Based Social Relationships

Homeless individuals can experience the homelessness process at different levels by staying with their friends, hotel room, parks and hospital emergencies -in line with their own equity capital and depending on the amount of capital- in the period when the homeless first person begins to experience the homelessness process. Homeless individuals are vulnerable to what life brings in the process of homelessness and they have to determine different life strategies in different periods of life. Being on the street, which is the worst form of homelessness, is expressed as ‘being without a roof’.

The social relationships of homeless individuals on the street can be divided into three basic categories. The first one is beneficial socialization, the second is harmful socialization, and the third is the inability to socialize. Beneficial socialization is a way that homeless individuals, who live on the streets, use their own life strategies to minimize the difficulties of the street. In this context, individuals engage in common supporting behaviors such as sharing information, solidarity, sharing their own resources, creating security shields by acting together against dangers. Harmful socialization relationships, on the other hand, consist of alcohol and substance addicted groups, and express their situation of becoming a crime network such as extortion, robbery, and becoming a security threat for themselves and other members of the society. The third category, being unable to socialize, refers to the situation of individuals with intense psychological problems and mental/psychological problem, and these individuals often fail to create a regular social relationship (Padgett, Henwood et al., 2008: 333-334).

Among the researches carried out within the scope of the social relationships of homeless individuals regarding life on streets, according to the information obtained by Karaman's research in 2019, the vast majority of homeless individuals do not meet with their friends before homelessness. It is stated that there are intimate relations in the rate of %67 among the friends acquired during the homelessness process, the rate of those sharing their problems is %62,2 and the rate of receiving support is %63,3 and those who cannot establish social relations have psychological problems. It is among the findings obtained from the results of the research that homeless individuals also cannot reach adequate support mechanisms and are exposed to social exclusion because the individual's problems and the support given to the individual are irrelevant to each other (Karaman, 2019: 108). In the study of Karaman, it is clear that, despite having the presence of a circle of friends in the streets, these relationships are not sustainable because of the limited resources provided by the street to homeless individuals and the inadequacy of social support mechanisms.

In Akyıldız (2020), the experiences of homeless people on the streets is explained in the form of being hopeless about the future, having a lack of a roof to shelter them, a lack of resources, disorder and helplessness. In this study, it is clearly seen that a sustainable social relationship is not possible in the street environment. At this stage, it becomes evident that on the basis of human rights, homeless individuals should be saved from street life with protective and preventive actions. In order to achieve this, there is a need for shelter centers with safety, where sustainable social relationships are formed, and common goals and objectives are accepted. Because there is a positive relationship between preservative and preventative activities, time spent on the street, time to go to homeless shelters and social cohesion.

2.1.2. Aspect of Social Relationships in Shelter Houses

Although the arrival processes of individuals to the homeless shelter differ, the rules in the shelters are the practices that support the fulfillment of the their given duties, the regulations regarding the services, the food and check-in and check-out times, and they also prevent the negative aspects of the homelessness process such as the irregularities of living homeless and the duration of their stay. As stated in Akyıldız (2020), counselling, vocational course, case management, employment oriented practices, psychological support, social activities and group dynamics in homeless shelters are the tools that help individuals to survive after the shelter; the formation of friend support mechanisms are the tools that ensure the socialization process in the shelters and end the homelessness. Therefore, there is a positive relationship between the activities carried

out at the homelessness centers and socialization and he termination of homelessness, and this minimizes the effects of the risk of homelessness in individuals.

The study conducted by a group of researchers in Canada reveals that there are intersecting situations between intimate relationships and homelessness and within the scope of this study, we tried to determine these three situations;

1. Current social relationships,
2. The role and effect of having sincere partners during homelessness,
3. The nature of close relationships and its impact on housing.

The research focuses on the limited existing social relationships of homeless individuals. The importance of re-establishing social ties of homeless individuals with their families is emphasized, in addition, considering that family trauma involves irreversible processes, the homeless shelter states the necessity of a new socialization process. In the study, it is stated that the existence of strong and sustainable social relationships is an effective tool for ending homelessness and settling in a residence (Shier, Jones, Graham, 2012: 101).

Being connected and having a social relationship is a psychological source of support for all individuals. Belonging to a group is also a tool that provides interaction with the environment. The lack of this tool leads to the loneliness of homeless individuals in the process of homelessness. In the stated context, homeless individuals need social support as well as shelter. In the stated context, homeless individuals need social support as well as shelter. Loneliness at this stage is a result of the lack of security support and friendships. These supports support the homeless person to maintain his/her psychological well-being, develop self-esteem, feel valuable because of being an important member of a community, and cope with problems and stressful situations, and form the infrastructure of the individual's state of readiness in terms of getting connected to the society. In cases where there is no social relationship, individuals may face the risk of being addicted to substance and using alcohol, and their chances of developing mental illness and other stress related diseases may increase (Sourbeer, 2012: 196).

In the studies carried out, it is stated that for each type of service provided in homeless shelters, individuals' transition to a stable housing is arranged. However, meeting the basic accommodation and physical needs of individuals is not always sufficient to provide a positive change in individuals' lives. The fact that homeless shelters generally serve on the basis of food and shelter both in Turkey and in other countries,

results in the process of controlling homelessness, and this can prevent the homeless individuals from getting out of homelessness. Therefore, homeless shelters can only be a tool for the termination of homelessness by launching professional occupational practices that develop talent and provide positive change by creating group dynamics on a social basis, developing their self-confidence on an individual basis and revealing individual strengths (Akyıldız, 2020: 65-144).

Although Yeter (2018) states that the social needs of homeless individuals highlight the practices to meet the needs of social work in the service organizations of homeless shelters, in our doctoral thesis study (2020), it was revealed that homeless shelters in Istanbul are organized mainly on the basis of social assistance rather than on the basis of social work. Although there are supports for employment and development of social relationships, psychological support emerging on the basis of social work is not sustainable with the available facilities. Because currently the focus is on accommodation and only basic needs are met. Social Work basically includes practices that take its basis of approach from the law; that are run by professionals and are based on sustainability.

However, despite these explanations, there are also some contributions made by homeless shelters in terms of socialization in individuals' lives. These contributions, as stated by Yeter during the meeting with the participants, are limited to chatting and making acquaintance. As the chairman of the Çorbada Tuzun Olsun Foundation stated, solving the problems of the homeless individuals by reaching their hearts, is important for them to socialize and look to the future more confidently; however, it is limited.

Most of the NGOs in Istanbul are focused on accommodation and basic needs, this situation is due to lack of resources and the inability to use resources effectively and create resources. At the specified level, homeless shelters indirectly contribute to socialization as a support unit in which homeless individuals create a solidarity environment among themselves; however, it cannot provide socialization based on a social work-based change in terms of work, psychological support, vocational rehabilitation, establishing alternative practices within the scope of inter-institutional dialogue and increasing the qualifications of the individual.

3. Research Method

Our study is a qualitative research. Within the scope of the research, the data were obtained through questions including demographic information about homeless individuals living in Istanbul and interviews made within the framework of a semi-structured questionnaire that enables

exposing the social lives of homeless individuals. Interviews were made with 8 homeless individuals living in 4 homeless shelters in Istanbul. The interviews were conducted by face-to-face interview technique and the duration of the interviews was 20 minutes on average. Interviews were made in the units of homeless foundations in Istanbul. The interviewed foundations are Erdemliler Dayanışması Foundation, Güngören and Maltepe units affiliated to Şefkat-Der and Umut Çocukları Foundation. In order to keep the credentials of each homeless person confidential, their names were coded. Homeless person has been abbreviated as "HP" and numbered in the order of the interview.

Table 1: Interview Time and Place

Code	Homeless Individual	Interview Time	Interview Place
HP1	Homeless Teem	July 2019	Umut Çocukları Foundation
HP2	Homeless Female	July 2019	Şefkat-Der
HP3	Homeless Female	July 2019	Şefkat-Der
HP4	Homeless Male	July 2019	Erdemliler Dayanışması Foundation
HP5	Homeless Male	July 2019	Şefkat-Der
HP6	Homeless Male	July 2019	Şefkat-Der
HP7	Homeless Male	July 2019	Şefkat-Der
HP8	Homeless Male	July 2019	Şefkat-Der

In order to interview the homeless individuals, institution officials were called by phone and an appointment was made. After the permissions were received, interviews were started at the appointment place and on time, after the purpose of the research was specified, interviews were started by having them sign the consent form. Since the location of the homeless shelter where the female homeless individuals stay is confidential, it was not possible to make an interview there and the interview was made by meeting at a place previously specified.

3.1. Analysis of Findings of Individual and Social Identity Information

Findings obtained from the research are subjected to evaluation on two basic levels. The first of these is the data on personal and social identity findings obtained with multiple choice questions within the scope of demographic findings. These data are classified using tabulation technique. In the second part, by analyzing the findings obtained within the scope of the semi-structured interview form thoroughly, an evaluation was made about the place of homeless shelters in the social life of homeless individuals in their own meaning worlds.

It is possible to compare the information obtained from the demographic information of homeless individuals at the specified level with the information obtained in the semi-structured interview form. After the comparison, the similarities between the information in the literature section of the study and the demographic information of the homeless people and their opinions about the semantic world provide the internal consistency of the research, and the similarity between the findings obtained in the scope of the research and the other researches provides the external consistency. After the analysis of the findings, whether the research has internal and external consistency is also analyzed.

Table 2: Individual Identity Information

Code	Gender	Age Range	Marital Status	Duration of Homelessness / Month	Job	Education	Medical Condition
HP1	Male	18-25	Single	0-12	None	Middle School	ENT
HP2	Female	36-45	Single	0-12	Architect	College	None
HP3	Female	26-30	Divorced	0-12	Hairdresser	High School	None
HP4	Male	36-45	Single	36+	None	High School	Schizophrenia
HP5	Male	45+	Divorced	0-12	Retired Firefighter	Middle School	None
HP6	Male	45+	Widowed	36+	Stage Actor	College Drop-Out	COPD Depression
HP7	Male	45+	Widowed	0-12	Cook	Primary School	None
HP8	Male	45+	Divorced	0-12	Technician	College Drop-Out	Chronic

The homelessness process of 2 homeless females, HP2 and HP3, who participated in the interview, is temporary homelessness. One of them is single, the other is separated from her husband. One is a university graduate and the other is a high school graduate and they have a profession that would help them can find a job. The two homeless females do not have medical conditions.

The marital status of the homeless teen, HP1, who participated in the interview is single. His homelessness process is a temporary homelessness that continued for less than a year. He doesn't have a profession due to being 18 years of age and growing in the orphanage. He is a middle school graduate. As to his medical condition, due to the inconvenience caused by the congenital absence of his nasal cartilage, he has recently undergone plastic surgery on his face.

HP4 is in the process of chronic homelessness. He is not married and has no profession. He is a high school graduate and he is schizophrenic.

HP5 divorced his first wife. He was excluded by his children and expelled from his home because he married another woman of foreign nationality. He is a retired firefighter. He is a middle school graduate and he has no medical conditions.

HP6 is a chronic homeless. His wife and children died in a traffic accident. He is a stage actor. He dropped out of college. He has COPD and depression.

HP7's wife passed away. His homelessness process is temporary. He is a cook. He is a primary school graduate. He has no medical conditions.

HP8 is a homeless individual who is separated from his wife and is in the process of temporary homelessness. He is a chemistry technician. He has experienced homelessness process due to family problems, alcohol addiction and work-related problems. He dropped out of college. He has a chronic disease.

Among homeless individuals, HP1, HP2, HP3, HP4 and HP8 have no income. HP5 has a retirement salary, HP6 and HP8 have irregular income. Another striking point in Table-2 is that there are clues that all homeless individuals may have family-oriented problems. The fact that most homeless individuals are separated from their spouse or their spouse has passed away means that the homelessness process is experienced as a result of family problems. The fact that most individuals are unemployed although they have a profession shows that economic problems cause homelessness indirectly, too.

Table 3: Social Identity Information

Code	A native of Istanbul?	Reason for Coming to Istanbul	Living Together With	Household	In touch with?
HP1	No	Friend	Friends from Foundation	No family / Brother	On phone
HP2	Yes	X	Friends from Foundation	Has family	Not in touch
HP3	No	Friend	Friends from Foundation	Child /Has family	Not in touch
HP4	No	Family	Friends from Foundation	Brother	On phone

HP5	Yes	X	Friends from Foundation	Child	Not in touch
HP6	No	Foundation	Friends from Foundation	No family	-
HP7	No	Work	Friends from Foundation	Has family	Not in touch
HP8	No	Good conditions	Friends from Foundation	Child	Not in touch

Most of the individuals who experience homelessness are not native of Istanbul. This situation reveals a close relationship between homelessness, migration and urban life. It is seen that among the reasons for individuals coming to Istanbul are friends, family problems, working and having better conditions. In spite of the reasons stated, the fact that individuals go into the homelessness process reveals that they have problems with adaptation and their supporting mechanisms are lacking. On the other hand, supporting individuals in the cities where they were born and raised also have a significant impact in the terms of reducing migration and its possible negative effects. Development differences between East and West in the country increase the sources of structural problems. Development programs at local level are effective tools to prevent and reverse migration.

Although most homeless individuals have family members, the fact that they do not meet these individuals reveals that homeless individuals do not have social capital in terms of relatives. On the other hand, the individuals who are in contact with family members use the phone as a means of keeping in touch, and the absence of a meeting other than on the phone, despite having close family members, reveals the existence of problems in family relations, and those who do not meet with their family are in permanent resentments. Another finding that shows their resentment with family members is that they only contact one person among their family members.

All of the homeless individuals answered the question: “Who are the people you live with?” with ‘friends from the foundation’. This reveals that homeless individuals are in the process of regaining their social capital, that they lost in terms of family relationships, with their friends with whom they live together in homeless shelters. This situation reveals that the individual, who is in the process of lifelong development, reconstructs the socialization process despite the negative changes in his/her life. This finding reveals that homeless shelters serve as a socialization in the life of the homeless person and expresses that they have a positive effect on the lives of individuals.

3.2. Analysis of Findings Regarding Social Life in the Process of Homelessness

In order to obtain data about the social life of homeless individuals, within the scope of the semi-structured question table, the questions: "What are your expectations from your inner circle?" and "What are the social supports you have?" was asked The answers given to the questions contribute both to determining the direction of the social relations established or to be established with the inner circle and to making deductions about how a new social process should be built. In addition, in line with the explanations of homeless individuals, explanations containing information about the direction of their social relationships and the effects of shelter houses on these relationships were also analyzed within the scope of the findings.

3.2.1. Analysis of Findings Regarding Expectations from the Inner Circle

In all of the homeless people interviewed, there are findings indicating that they do not have expectations from their inner circle. It is possible to evaluate these findings in four ways:

1. Since homeless individuals experience family problems, their communication with the family is cut off.

In the studies conducted in the literature, the problems experienced in family relations are among the first two reasons at the beginning of the homelessness process. This effect often causes the homeless person to be excluded by other family members.

2. The homeless person also sees homelessness as an escape route and a means to get away from home.

3. Individuals staying in institutional care, especially children, experience homelessness after institutional care, as they cannot adapt to the requirements of normal life.

4. Although there are no communication problems in the relationship of the homeless individuals with their families, the economic inadequacy of their families causes the social relationship between the homeless individuals and their families to decrease.

Within the scope of this research, the homelessness process of HP2 and HP3 started because they saw homelessness as an escape route to avoid family problems and as a result of this process, their relationship with their family ended.

Since HP1 grew up in an orphanage, he has no family relationships. In the stated context, he does not have a vision of a home environment or an expectation from his inner circle.

HP4 is a homeless individual diagnosed with schizophrenia. HP4 also remained in an orphanage for a certain period of time and after he left the orphanage, HP4 has done a lot of research, according to his own statement, to reach his own family. In the process of homelessness, he started to stay here by benefiting from the support of Erdemliler Dayanışması Foundation. He states that since he did not experience a family environment, he had no place other than the environment of the foundation.

HP5 was cast out from his home by his first wife and children due to domestic problems. The individual feels lonely because of being excluded from his family and states that he has no expectation from his inner circle.

HP6 experienced homelessness as a result of family problems, health problems and losing his job. During this period, he left his hometown and started living in Istanbul and entered into the process of homelessness. Due to the poor economic condition of his family, he has no expectation from his inner circle.

HP7 is experiencing homelessness as a result of family problems and losing his job. He states that he cannot be in an expectation from family members since he is the head of the family.

HP8 has alcohol addiction and health problems and he has lost his job. He came to Istanbul with the hope of finding a job and entered into the process of homelessness. His family is unaware of his situation. He talks to his child on the phone from time to time and states that he cannot have an expectation from his inner circle because he cannot meet his child's economic expectations. Although the homelessness process is different for most homeless individuals, experiencing family-related problems prevent homeless individuals from having an expectation of their inner circle.

3.2.2. The Nature of Social Supports

Homeless individuals state that they have very limited relationships, suffer loneliness, and are excluded, in the context of social support. These statements are consistent with the explanations that homeless individuals do not have expectation of their inner circle. The lack of social capital of the homeless person leads to a decrease in their expectations from life, now and in the future. This makes it possible to obtain data from the primary source about the level of family relationships before and after homelessness. The fact that their family relationships are very limited on

both levels is important in terms of making the shelter experiences of homeless individuals the starting point of the re-socialization processes.

3.2.3. Effects of Homeless Shelters on Socialization Process

Within the scope of the research, the homeless individuals answered the question; "Who are the people you live with?" with 'friends from the foundation', "What are your expectations from your inner circle?" with; 'I don't have expectations', "What are the social supports that you have?" with; 'I do not have any social support'.

Among the answers given to the questions; "What are your expectations of yourself?" and "What is your opinion about social relationships in homeless shelters?", feelings of vulnerability, empathy, solidarity, sharing and exclusion are dominant.

Vulnerability; It is especially used to express the situation that is faced by external dangers among female homeless individuals. It has similarities with the findings of the researches conducted in the society about women feeling more vulnerable than male individuals. **Exclusion**; It refers to the situation that homeless individuals experience as a result of the indifference of their families and their social circle. **Empathy**; it is used to express the change in the mindsets of homeless individuals, who stay and do not stay at the shelter house, that arise in the process of experiencing homelessness with their approach to homeless individuals before staying at the shelter. **Sharing**; is used to define the use of homeless individuals' own possessions in line with the needs of their friends, and **solidarity** is used to describe the process that occurs after the act of sharing. The shelter experiences of homeless individuals at each level in the process of homelessness represents the change in which the effects of negativities are minimized in their intellectual and behavioral states, and this constitutes the infrastructure of social change in a positive way for homeless individuals.

4. Result

Homelessness is a phenomenon that negatively affects social relationships. In this process, the individual experiences a decline in social relations around work, family, close relatives and friends. Each service of homeless shelters should be regulated with practices that will eliminate the gaps that emerge at this level. Thus, a positive change in the social life of the individual can be achieved by making them a member of the society again.

Social support that emerges in homeless shelters refers to the natural atmosphere that arises due to the fact that individuals, who experience the

same problem at different levels, live together in the same environment. Experiencing intense feelings of empathy increases the social interaction and communication of the individuals and brings out the helpful and solidarity behaviors within the group. Since these individuals lost everything they have, their friends at the foundation mean everything to them in these difficult days. This situation results in individuals with more opportunities in the foundation providing support to individuals with less opportunities. Shelter homes also appear as places where task sharing is made to the extent of individuals' abilities and abilities. While the individual whose profession is cooking is held responsible for cooking for the shelter houses, the individuals are assigned for distribution work. A healthy individual can be tasked with taking an individual who cannot go to the hospital with his own means due to a health problem. An intense in-group solidarity becomes prominent at the specified level. It has been observed that shelter houses are effective in the socialization of homeless individuals in terms of providing a common space, which is the primary factor in this solidarity.

It is possible for shelter houses to have a direct impact on the social life of homeless individuals, by increasing their opportunities and abilities. Considering the multi-dimensional nature of the homelessness problem, it seems imperative to establish a dialogue between the institutions. At first, the provincial local government needs to implement activities supporting the shelters, as they are disadvantaged. Primary supports should include assignment of space, members of profession, contributions to the field studies, preparation of the infrastructure required for establishing inter-institutional protocols, and rental assistance. When the current situation of homeless shelters is evaluated, it is revealed that it can move from applications that make social aid a goal to applications that make change a goal on the basis of social work. This model makes it possible for shelters to become primary contributors to social change with different service offerings.

5. Suggestions

There is a correlation between the services provided in the shelters and the positive change in the social life of individuals. Homeless shelters should include integrating, bonding, exploratory, skill-enhancing practices, and predominantly offer services.

There is a close relationship between the time individuals spend on the streets and their disconnection from social life and loss of their health and life. The spreading of protective and preventive activities at the specified level concludes individuals to adapt to social life faster.

Group dynamics created in homeless shelters should be considered as the common power of individuals and should be turned into an opportunity to move into a home together.

Homeless shelters should create activities, primarily consulting, that help individuals gain self-confidence by increasing their level of knowledge. This practice is also important for creating environmental awareness of individuals.

In homeless shelters, there should be practices where individuals can share their experiences and problems, and learn and guide themselves, in the company with social workers, sociologists, psychologists and professional professionals, who are familiar with group therapy and group counseling.

The operation of homeless shelters at the level of civil initiative also makes the organization of voluntary practices mandatory. Establishing especially sustainable services on the basis of volunteering, has a positive effect in terms of continuity of services of homeless shelters and exceeding the need for trained human resources, not to mention the fact that it has a preventive effect on social exclusion in terms of providing support for homeless individuals to solve their problems in the community base.

In the shelters, there is a need for services designed in line with a planned and scheduled goal in order to create the bonds to be established with the change and transformation of the social life in the desired direction.

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Chapter 25

ADAPTATION TREND IN TURKISH TV SERIES: THE EXAMPLE OF "MASUMLAR APARTMANI"

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1. INTRODUCTION

This study is based on the analysis with a current example of the adaptation school in Turkish television series in the context of the concept of "adaptation" based on the relationship between literature and media.

The reason for the preference of the subject of adaptation in Turkish TV series in the study is that there are many studies in the literature on cinema adaptations, but the limited field of study for adaptation from novel to series is to contribute to the subject of novel-series adaptations in this sense. After focusing on what is considered in the adaptation series from novel, the definition of the adaptation and the harmony between it and the literary work, the adaptation school in Turkish TV series is briefly mentioned. Afterwards, similar and different aspects of a work chosen as an example in our study as a novel and a television series are revealed.

In the research, it is observed to what extent the adapted series are compatible with the adapted work and how much the television industry has affected the adaptation. In this sense, what has changed in the adaptation process, whether the work is faithful to the original, the factors that remain the same during the adaptation and the progress of the series are discussed. Before this study, which was written for these purposes, when the media contents in the form of adaptation from the novel are examined, cinema films are generally seen. For this reason, it is striking that the main sources in the literature are mostly on cinema. Thus, it is aimed to eliminate the lack of literature on adaptations of novels and television series with this work.

Considering the history of television, it is seen that adaptations first started in the TRT period and well-known and well-known authors frequently use novels and stories as serial scripts. However, with the beginning of the multi-channel era, it is seen that these adaptations have decreased considerably and after 2006, the adaptations have completely shifted to private channels (Tanyıldızı & Kaya, 2017). With the widespread use of television, the serial industry has also gained momentum. Viewers follow the TV series (weekly or daily) that are broadcast in certain periods with interest. Turkish TV series, whose diversity has been increasing sufficiently in recent years, has become increasingly popular both at home and abroad. The TV series industry, which has "almost" guaranteed content in terms of viewing rate, is becoming a more developing industry. In addition, foreign serials and novels, stories, etc. There are also many adaptations made from other works. The topics mentioned in the study are explained through cinema in order to give correct definitions. Because the subject is handled in a wider frame on cinema.

Cinema has used novels as a source and produced adaptation films since its early years. With the widespread use of television, novels, which are also the subject of TV series, have always been seen as an important resource for many producers in many countries of the world. Novel adaptations have been attempted as required by the film art (Tanyıldızı & Kaya, 2017). Adapted productions are watched with interest by the audience. It also directs the audience to the main source.

In our study, the series "Masumlar Apartmanı" adapted from the "Çöp Ev" part of the novel "Madalyonun İçi" was determined as the sample. In the selection of the sample, purposeful sampling was used, and it was preferred because of the success rate of the episodes in which the series was broadcast and, of course, a novel adaptation.

It starts with a brief overview of Turkish TV series and brief information about the developing TV series industry from past to present. In the second part, the conceptual framework of adaptation is explained. In the third part, the methodology of the research and later in the findings and analysis part are analyzed within the framework of the concept of adaptation of the series Masumlar Apartmanı series and Madalyonun İçi.

2. AN OVERVIEW OF TURKISH SERIES

Television broadcasting, which continues in the form of public broadcasting TRT for more than half a century and private televisions for more than a quarter century, has become an indispensable element of daily life. According to the results of the "Television Watching Tendencies" research conducted by the Radio and Television Supreme Council in 2018, an average of 3 hours and 34 minutes of television is watched daily in Turkey. In the same research, it was determined that domestic TV series ranked second with 15.6 percent and foreign TV series ranked 8.9 percent after the news (RTÜK, 2021).

As an interesting coincidence of our study, "Aşk-ı Memnu, which was the first domestic television series published in TRT in 1975, was adapted from the work of the same name by Halit Ziya Uşaklıgil. Within the framework of the cooperation of the television with Yeşilçam, the domestic TV series broadcasting that started with literary adaptations in 1975 continued with many new series - which led to the praise and longing of the "old" TRT. Among the most remembered productions of the 1980s, Küçük Ağa (1984-Tarık Buğra adaptation), Kartallar Yüksek Uçar (1984- Attila Ilhan's original TV script), Dokuzuncu Hariciye Ward (1986-Peyami Sefa adaptation), Çalıkuşu (1986-Reşat Nuri) Güntekin Adaptation), Aliş and Zeynep (1985 - a Rumeli folk song adaptation). It should be added that these are only narratives in serial8 form. There

were also productions in the form of a series / series in which a certain story was processed and connected to an end in each episode, such as Kaynanalar, Kuruntu Ailesi, and the later released Bizimkiler.

In the "Understanding Turkey Guide" research; Almost all of the Turkish society says that they watch TV every day. 84% of the respondents say "I watch television every day". News programs and TV series are mostly watched on television. According to the research, 65% of people in Turkey stated that they like watching news and news programs, while this rate is 67% for domestic TV series (Bayram, 2018). The habit of watching TV series is quite high in our country.

Turkish television broadcasting, which started with the establishment of the TRT Foundation in 1964 and started with the first broadcasts in 1968, has been fed with foreign sources for many years, and viewers in Turkey have watched foreign television productions. With the development of technology and the advancement of Turkey in various fields, Turkish television broadcasting has expanded its field of work and broadcasting over time by producing original productions and appealing to the Turkish audience with its own character (Cereci, 2014). Although the western lifestyles were chosen as the subject of the series at first, the TV series dominated by the Turkish culture were shot over time and attracted more attention.

The meeting of television audiences in Turkey with TV series started with Brazilian TV series; It continued with American-made serials and finally, Turkish-made serials, which increased intensely in the 1980s and especially in the 1990s, took their place in the show. According to the research of TV content and TV series made by Eurodata in 2015, 40% of the 8,500 programs that were screened in Turkey in 2015 (Kalkan, 2020).

It is known that after the first imported TV series that entered the country in Turkey, Turkish people started to write and shoot their own TV series. Ours, Super Dad, and the Headmen of the Neighborhood are among the series that convey positive messages such as unity, solidarity, trust and peace. The narratives of these series mostly focus on the livelihood difficulties of people belonging to lower or middle class (Yiğit, 2012). Turkish TV series are shot considering the conditions of the period. These series are watched with interest by the public.

The series adventure that started with TRT is carried to private channels with the advancement of technological developments over time. Turkish TV series, which won the appreciation of large masses with productions such as Second Spring, European Side, My Family, Bread Boat, Broad Family, Karadayı, Kavak Yelleri, Deniz Yildizi, Galip Derviş, Ezel, Kurtlar Vadisi, which were shot by private channels, started

to attract the attention of foreign television channels (Cereci , 2014). The reason for the development of the Turkish TV series industry stems from the fact that the events covered reflect the society. As individuals see their own lives on the screens, the demand increases and the serial sector is expanding day by day.

With the sale of the TV series called Gümüş to the Middle East and then to Bulgaria in 2007, Turkish TV series were opened to the Middle East and Balkan countries. The somewhat unplanned and spontaneous export process has made rapid progress with the interest of TV series outside. 85 million Arab viewers came to the screen to watch the season finale of the Silver TV series, which attracted great interest in the Arab world (Öztürk, 2016). In this way, the TV series shot in Turkey are bought and published by other countries. The biggest examples of these series are Gümüş, Kurtlar Vadisi and Aşk-ı Memnu.

Turkish series; taking into consideration the target audience, ratings and television fiction; It contains the elements of the society from which it comes out. Although the motifs of love, intrigue, crime and conflict come to the fore in the productions to attract the attention of the audience, especially the series fiction that has developed as a serious economic sector recently, contrary to the firsts of the 90s, perhaps also with the effect of the sociopolitical conjuncture, the social life styles and social diversity it can be said to reflect it better (Geçer, 2015).

Since the stories and events that make up the series take place within the society, it is in a position that both shapes the society and is shaped by being fed by the society. For this reason, TV series have become literally social and cultural phenomena in today's Turkey (Tanrıöver, 2015).

3. ADAPTATION TREND IN THE TURKISH SERIES INDUSTRY

The word adaptation means "adapting a work to the life and beliefs of the language in which it is translated, the society in which it is spoken" in the dictionary of the Turkish Language Association (https://sozluk.gov.tr/). Adaptation is the act of creating a work of art by transferring the elements in another work of art appropriately to the new vehicle (Katz, 1979: 19). Adaptation is not breaking away from the essence of cinema and transforming the work.

Adaptation with another definition; It means reconstructing, creating as a product of one art branch and the product of another. In other words, the work that constitutes a source for adaptation is reshaped with the codes and infrastructure of another art branch and even enters a creative process again (Akbulut, 2003: 1). It should not be forgotten that during

the transformation of a work from one branch of art into another, major changes occur in the adapted work (Özön, 1990: 85).

Adaptation as a product is a comprehensive transposition of a job. This code change can be in a different framework or context, such as the medium (eg from poetry to film), genre (eg from an epic to a novel), telling the same story from a different perspective, with a different interpretation (Hutcheon, 2006). The adapted work outweighs similar aspects, at the same time it contains differences without leaving the general framework. The fidelity of the adaptation, in other words, whether it is loyal to the source work or not is one of the points taken into consideration when evaluating the adaptation (Karel, 2004). Adaptations from the novel to the cinema are also made. These differences vary according to the conditions and society of the period. We can also define adaptations as re-mediation (Yurderi, 2014). She says the work is revived again. The adaptation reveals the variability between works of art. Adaptation in literary and representational arts; It is the transfer of another type of literary work to the stage and the curtain. Another use; "It is the transfer of a foreign work without being strictly bound to its original" (Çetin, 1999).

The adaptation is given to the screens by changing without disturbing the main theme of the literary genre. Everything is faster and many events are written in one instant. Adaptations seen in Turkish cinema have been mostly made from literary works (Özcan, 2019). Among the main reasons for the need for novel adaptations are: artistic concerns, commercial concerns, the cohesion of the political messages of the writer and the director, the guarantee of the interest of a movie adapted from a popular novel, the limited time to write a script, the low share of the script in the movie budget and the scarcity of a script, etc. reasons can be listed (Kale, 2010).

On the basis of the convergence between cinema and literature, there are opportunities that literature provides to cinema. In this sense, the novel, which is the literary genre that cinema is most close to, has been prioritized in preferences (Yılmaz, 2008: 12) According to Abacı, the reason for this choice is mutual advantage. "In the relationship between literature and cinema, cinema, which has the advantage of finding ready-made topics and snopsis, is also enthusiastic and enthusiastic about literature, which finds the opportunity to become widespread and popular through filming. Almost all genres of literature that contain a certain "subject", firstly novels and stories, later on anonymous literary products such as plays, memories, fairy tales and epics, and sometimes even "non-subject" types such as poetry have attracted the attention of cinema (Abacı, 2006: 10). Selecting works that are known and loved as novels in adaptations may provide a convenience such as the readiness of the audience of the film. Thus, the

job of the screenwriter and director will be easier. However, there may be various dangers in adapting literary works, especially novels, to cinema. For example, a novel that has been widely read and loved and whose success has been registered may disappoint the audience (Erus, 2005: 19).

There are examples of this negative side in the history of Turkish cinema. Among the novels that have been printed over and over again, Çalıkuşu and Yaprak Dökümü are works that have achieved the success that they could not achieve as a motion picture only after the series became a movie, and it can be said that the films in question drifted away from the novel and reached a brand new structure. It is said that the film adapted from Necati Cumalı's play "The Blank Cradle" was an unsuccessful example and could not stand watching Susuz Yaz, which was also adapted from his own novel (Abacı, 2006: 11).

Another subject of discussion on this subject is that the movie transcends the novel (Yılmaz, 2008: 17). "Selvi Boylum Al Yazmalım" scripted by Ali Özgentürk from the story of Kyrgyz writer Cengiz Aytmatov is the most typical example of this. However, it should be stated immediately that another reason for the film to stand out from the novel is undoubtedly the soundtrack composed by Cahit Berkay. Similarly, again with the characteristic effect of the soundtrack, the movie Hababam Classi surpassed the novel it was scripted for, and even launched the most successful sequel series in Turkish cinema history.

With Özgüç's classification, a general perspective on literary adaptations in Turkish cinema is possible. Özgüç, his works adapted to cinema;

- War of Independence and literary adaptations,
- Village and town literature adaptations,
- Adaptations of detective, adventure and espionage novels,
- Drama, melodrama and light novel adaptations,
- Historical novel adaptations,
- Adaptations of comedy literature,
- Classified in 7 categories as social novel adaptations (Özgüç, 1996: 6)

"In recent years, the number of adaptations based on the adaptations of famous Turkish novels and the lives of historical characters has been increasing. In this trend, it is aimed to reduce the risk of failure of new productions with known stories, novels and events by following a relatively safer path rather than embarking on new adventures with original scenarios.

Successful examples within this trend include productions such as Yaprak Dökümü, Huzur Sokağı, Çalıkuşu, FatihHarbiye, and Muhteşem Yüzyıl. In addition, it is observed that the formats of successful productions abroad have been adapted and started to take place in television channels more. For example, TV series such as "Desperate Housewives", "The O.C-Medcezir", "Revenge-Revenge", "Monk-Galip Derviş" and "Gossip Girl-Little Secrets" can be given. On the other hand, whether there are adaptations from novels and historical figures or projects abroad; It is possible to say that many projects, which are prepared with large budgets, are not able to hold on to rival TV series in an intense competition and whose life is not very long "(Deloitte, 2014: 16).

Tanyıldızı and Kaya (2017) 'Novel Adaptation Problems Experienced in Turkish Television Series (Kahperengi Novel-Merhamet Series Example) studies focus on the definition of adaptations and examine their problems in detail. The research is the same as our study in terms of defining adaptation, and it evolves in a different direction from our article with its focus on problems. Content analysis method is used in the study. This method is in parallel with our article.

Çakır (2017) "An Adaptation Example from Popular Novels to Yeşilçam Melodramas: Hıçkırık" examines the intertextuality between novel and film. The culture transferred from the Roman culture to Yeşilçam melodramas is examined in the context of adaptation. The difference of the research from our study is that it deals with the transition from novel to cinema based on Yeşilçam melodramas.

In the article "Happiness as an Adaptation from Novel to Cinema" written by Öncel (2008), the subject of adaptation from novel to cinema is discussed. The study proceeds in the same direction as our article and shows similarities.

In this thesis titled "An Analysis of the Films of Vurun Kahpeye (1949, 1964, 1973) as an Adaptation from Novel to Cinema" in Okumuş (2016) study, how the novel is approached to cinematic narration, the interaction of novel-cinema and how the novel is transformed into a movie is discussed. Unlike our research, the study focuses on 3 different adaptations of the same movie rather than a novel.

Yurderi's (2014) article "Representation of Changing Value in Television Series Adapted from Novel" examines to what extent the social and cultural structure of his time was effective in his films. The values that the series represent under the conditions of the period are discussed. It differs from our study in terms of representation, and at the same time shows similarities with the adaptation's transition from novels to serials.

4. METHOD

4.1. Research Subject

The adaptation school is analyzed over the series Innocent Apartments, which was adapted from the novel The Inside of the Medallion, the subject of the study. The work deals with the productions adapted from the novel through this sample series.

4.2. The Purpose and Importance of the Research

The aim of the study is to explain what the productions adapted to television and cinema from the novel that is becoming widespread today emerged by adhering to. In the adaptations, it is aimed to examine how accurately the work, the sequence processed as an example, is transferred in this context. The importance of this is that the adaptation process of Innocent Apartments series is studied differently from the previous works, and the series is dealt with differently from adaptation researches, rather than through films.

4.3. Research Method

The method of the study is provided by using the content analysis method. With the content analysis, the plot in the series Innocent Apartments is compared with the plot in the novel.

4.4. Study Population and Sample

The research universe is composed of domestic movies and TV series adapted from novels. The universe of the study is the series of Innocent Apartments adapted from the book titled Inside of the Medallion and published on TRT. The series is still ongoing, so the episodes published in the research process are considered. The reason for choosing the series as a sample is the success rate of the public broadcaster on television.

4.5. Assumptions

- In adaptations from novels to series, the work remains loyal.

- Due to the necessities of the television industry, adaptations are not loyal to the work.

- Adapted series remain superficial compared to novels.

- Character traits in the novel are not changed or processed in the series.

- Adapted scenarios increase the interest in the adapted work.

4.6. Limitations of the Study

The novel called Inside of Medallion consists of chapters. The section called "Garbage Apartment" in the novel is the subject of the series. For this reason, only the part of the book related to the series is covered. The series is still ongoing, so only broadcast episodes are examined during the research process.

5. FINDINGS and DISCUSSION

5.1. Madalyonun İçi –Çöp Ev

The subject is taken from the Çöp Ev' section in the book. It is a story that begins with three sisters named Safiye, Gülben and Neriman, who have a cleansing obsession, going to a psychiatrist. In the novel, the event takes place in Ankara. Gulben has a problem with wetting his bottom and goes to the doctor for treatment. Then, the events begin to be solved when the younger brother Neriman goes to the doctor. Three sisters and fathers live at home in the novel. Neriman character describes the situation at home when she goes to therapy. She mentions that her older sisters are obsessed with cleaning, that everything in the house is washed 3 times while washing, and that the bathroom / toilet is used in limited times. Safiye and Gülben put the garbage they collect at home, the old furniture and the sheets that Gülben soaked under in bags and put them in their empty flats in the apartment. The reason these three sisters are like this is because their mothers wanted a boy and blamed the child born as the girl gave birth. Four children of the mother who gave birth to seven daughters in total die of neglect and the other children grow up with insults and humiliations. Things get mixed up with the Neriman character's desire to marry. Safiye wants to clean everywhere and this house cleaning takes 6 months. Neriman goes to the therapist more often because of the events and wants to get better by taking medication. Meanwhile, her sisters' obsessions are increasing. Neriman finds the cure by calling the doctor home and performing the therapies at home. Safiye and Gülben regularly attend the sessions of the doctor who comes home and benefit from it. Safiye attributes the reason why she is so ill to the problems in her parents' marriage. The increase of Safiye's maternal pressure causes her to be taken from school, and Safiye lives in a heavy tram with the death of her beloved child in a car accident in front of her eyes. After the incident, her mother inflicts violence on Safiye and has a heart attack. Safiye, who wishes her mother to die, is looking for the ambulance if it is late, but her mother remains severely damaged. Nobody in the house knows the true nature of this event. Safiye, who takes care of her sick mother, becomes the mother of the house, and soon the mother dies. After the mother who died, Safiye

settled in the mother's room at home and dressed like her mother and behaved like her mother. Even though everything is under his control, she always feels sinister, dirty, and sinful. Safiye, who continues the sessions at the end of the book, shows improvement and signs of correction she. As a result, the three sisters reach a normal level as a result of the therapies. All the garbage in the building is removed, and Neriman and Gülben are getting married. Safiye, on the other hand, fondly raises Neriman's child.

5.2. Masumlar Apartmanı

The story of Han, who lives with three sisters and a father, is told. Han, who has sisters named Safiye, Gülben and Neriman, returns home from abroad and lives with them as a result of the increasing obsession of her older sister Safiye and Gülben. Safiye and Gülben, who are obsessed with cleaning, constantly wash and clean everything. Neriman is the little sister who goes to high school, has asthma and hurts herself when she is upset. His father, on the other hand, cannot find a cure for his children and accepts the situation and sleeps sickly in his room. The story begins when Han coincidentally met İnci and fell in love with it. Subsequently, İnci, her grandfather and brother move to the building of Ege Han. Safiye thinks that there is something between her brother Han and İnci and constantly creates problems for them. Likewise, İnci's grandfather also prevents. Despite all this, İnci and Han are married with great love, but İnci is unaware of her obsession with Han. Han collects garbage from everyone secretly at night. Although İnci becomes suspicious over time, the han is deceiving the pearl with lies. Safiye does not want to, thinking that everything will be worse if Han gets married and İnci will bring dirt to the house. Gülben is in love with Han's friend Esat and struggles to correct himself and be normal. Safiye returns to her old days with the return of Naci, the high school love of Safiye, who is known to have died. Nobody in the family is aware of this incident yet. The series is still progressing within the framework of these events.

The fact that the series is an adaptation does not mean that it reflects exactly the same as the novel. There are sections that diverge between the series and the novel. The events in Ankara in the novel take place in Istanbul in the series. Their home life is described the same in the series and the novel. However, Han, İnci and İnci do not have families in the novel. In the series, the starting point of the story begins with İnci and Han's love. While Safiye's experiences with Naci, her great love, are depicted in the series, Safiye's lover named Mehmet dies in the accident. The novel Inside of Medallion and Innocent Apartments series are examples of successful adaptations. In the adaptation, the focus is on the psychological problems of the characters. This part of the book is transferred exactly in the series.

Unlike the novel, the series deals with not only the length of illness, but also the way they live life.

6. CONCLUSION

The research is a real life story called "Masumlar Apartmanı", Dr. Inspired by Gülseren Budayıcıoğlu's novel "Madalyonun İçi" (https://www.cnnturk.com/egitim/masumlar-apartmani-gercek-mi-masumlar-apartmani-gercek- story-ne- innocent-apartmani-hangi-kitaptan-adaptation / 15.4.2021). In the study, adaptation was defined and similar articles were examined. It is observed that in novel adaptations, movies are handled more than TV series. Therefore, adaptation definitions have been made by considering cinema. In the literature review, only one example of a series is included in the study. Turkish TV series are discussed in the following parts of the study. Information about Turkish TV series from past to present is given. In the findings section, the series of Innocent Apartments and the novel called Inside the Medallion are discussed in detail. While the adaptation is more detailed and the emotional intensity is given in more detail in the novel, the adaptation of what is written to the screen remains more superficial. While reading a novel allows the person to live the atmosphere that he envisions in his mind, it is seen that the adaptation does not meet the person's dream.

According to the findings of the adaptation school in Turkish TV series, in the study conducted by Tanyıldızı and Kaya (2017), Merhamet (Merhamet), which was adapted from the novel to the TV series, has been successfully adapted. He explains that the director follows the right way from the novel to the screen from the subject of staying connected to the story. Çakır (2017) examined Yeşilçam melodramas adapted from the novel in his study and concluded that Yeşilçam was compatible with the adaptation. He explains that the adaptations, even if they undergo change, reflect the society and do not break away from Yeşilçam phenomena.

As a result of the work carried out by Öncel (2008), it is concluded that in the adaptation from novel to cinema, the novel has been adapted to the extent required by the art of film. It is stated that the author of the novel also liked the movie together (Öncel, 2008). Her novel Vurun Kahpeye from Okumuş (2016) has been adapted to the cinema three times. The conclusion about adaptation in the study is based on the political effects of the period. Each adaptation corresponds to a different political period. It is concluded that all 3 adaptation productions are effective productions. In the study conducted by Yurderi (2014), the representation of changing value in the series adapted from the novel is examined. It is concluded that the TV series remain connected to the novel in the first place, but the productions that attract attention vary according to the audience due to

commercial concerns. Unlike the results obtained in the literature review, it is observed that the series Masumlar Apartmanı is a good example in the adaptation series category. It is a series that follows with interest and continues without breaking the main story. The adaptation contributes to the literature in the field of serials.

While adapting from novel to series, one should stick to the inspired work. Masumlar Apartmanı series does not change the course of the story except for certain events and adheres to the book. The series is becoming the production of TRT that is watched with interest. Thus, the interest in the novel, which is the source of the series, is also increasing. Adapted productions are watched by the audience and at the same time reach the adapted work. After watching Masumlar Apartmanı with interest, the sales of the novel called Madalyonun İçi, which is the source of the series, are increasing (https://onedio.com/haber/yilin-en-iyileri-aciklaniyor-2020-yilinin-satis-rekorlari-kıerek-en-cok-okunan -30-book-946234 / 09.4.2021).

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Chapter 26

BIBLIOMETRIC ANALYSIS OF ARTICLES PUBLISHED ON MANAGEMENT ACCOUNTING PUBLISHED BETWEEN THE YEARS 1980 TO 2020

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1. Introduction

Management accounting enables the activities, expected to occur in the features, to be temperately presented, using the past data belonging to businesses. Management accounting, thanks to this, affecting managerial decisions for planning and controlling business functions and measuring performance, [provides] the dataflow it needs and makes data analysis. Management accounting is also a system serving in valuing resources the most effectively and effectively and supporting to accurately make decisions (Şakrak, 1997; Çetiner, 2008; Üstün, 1992). Management accounting, making these duties, will provide the possibility to reach the realistic and easily understandable data that are necessary to plan and supervise activities for the managers taking place at every level of organization in the desired time and place.

The information management needs differ from the point of organizational structure and activities. The business objectives, organizational structure, and activities business makes are under the effect of environmental activities. Therefore, changes occurring in the economic and environmental conditions also make obligatory the various changes in businesses. Businesses, for being able to keep step with the competition increasing from the past to present time, developments in production process, developing technology, and change globalization brings, give weight planning and controlling targets in managerial dimension. Due to the fact that management accounting makes contribution to these activities, the interest directed to it is seen to increase. The increasing interest is a reflection of the contribution management accounting makes to the process of making decision. For this purpose, an accounting system, which creates values to provide support to the strategic management process, can be possible with forming a management accounting system that is effective in the every area and stage of organization (Böer, 2000).

As innovations of Industry 4.0 and digital transformation, the developments such as computerized design, computer-controlled production and robot use in production, cloud technologies, internets of objects, and etc. are qualified as a revolution, and the revolution this change and its instruments realize on business world shows itself in the areas of information and production technologies. These innovations brought by digital transformation, which provide in the faster and more desirable way access to information, also increase the effectiveness of management accounting system. In the future, when considered that the active use of digital transformation together with artificial intelligence and cooperation will continue, the fact that the data obtained from accounting in businesses become usable in the faster and desirable way, their use in analyzing and reporting processes, and process of business managers

to determine strategic targets and reach these targets will bring scientific value and importance of management accounting into the forefront. In the continuity of change, scientific studies related to management accounting should also follow innovations, and the academic studies carried out for this purpose should give direction to the future of management accounting.

In the study, the bibliometric and documentary analysis of academic studies carried out for developing management accounting from the past to the present time was made. For this purpose, the database "web of science core collection". Web of science is a website providing subscription – based access that presents comprehensive citation data for a number of academic discipline. In the study, the academic data obtained related to academic articles between the years 1980 to 2020 were assessed by analysis software "voswiewer", and the results were interpreted.

2. Method

2.1. Aim and Importance

The aim of this study is to systematically examine the studies conducted in the area of management accounting. The studies have a great importance from this aspect in the direction of the effectiveness of management accounting in the decision process in business, in terms of measuring contribution drawn from scientific literature and showing the direction of the studies related to management accounting in the future

2.2. Study Design

In the study, the case study taking place in qualitative study designs was used. Case study is a study approach, in which researcher deeply examines a phenomenon or case by means of data collecting instruments, utilizing multiple resources, and as a result of this, in which the cases and themes that are related to the case are defined (Creswell 2007; Chmiliar 2010). In the study, the articles related to management accounting were examined in the direction of bibliometric parameters, and design of case study was adopted for being able to be examined the existing situation

2.3. Data Collecting and Analysis Method

In this study, bibliometric analysis was utilized as study techniques. In bibliometric analyses using the criteria such as document and publications, the number of publication and author, citations made from publications, and etc., the various findings related to scientific processes are obtained (Osareh 1996; Al and Tonta 2004). In bibliometric studies, there are a number of databases for researching scientific literature. WOS,

Scopus, Google Scholar, PubMed, Medline, etc. are of the most used and comprehensive databases (Chen, 2017; Li et al, 2018). In the study, the database "Web of Science Core Collection" was used. The effective causes in selecting the database expressed are that it is a comprehensive database consisting of *Citation Index Expanded (SCIE),* which reviews the magazines more than 8500 covering 150 disciplines*; Social Sciences Citation Index (SSCI*), which reviews the magazines more than 3000 in the area of social sciences, *Arts & Humanities Citation Index (A&HCI or AHCI),* which reviews the magazines more than 700, *Emerging Sources Citation Index* (ESCI), which reviews the magazines more than 5000 in the area of sciences and social sciences, *Book Citation Index* (BCI), which reviews the books more than 60,000,and *Conference Proceedings Citation Index* (CPCI), which reviews conference titles more than 160,000; that a large part of the high-valued magazines, which comprise accounting area and are effective in social sciences, take place in this index; that the data can be easily compiled; and that that it is a the most acceptable and mostly used database.

Bibliometric analysis was made as follows:

- For bibliometric analysis, the keywords of "managerial accounting", "management accounting" and "administrative accounting" were used. These keywords are responses of English expression fully responding the expression "Management Accounting" and used in the studies.

- The study was carried out in December 2020. In case that the same exploring strategy is used in the different data, due to the fact that the database "Web of Science" is continuously updated, the difference can be formed (Liu et al., 2013).

- The keywords were reviewed, using the developed exploring feature on the WOS database between the years 1980 to 2020. The reason for using the data between these years is that WOS database covers pre-1980.

- In the data base "Web of Science Core Collection", three searching words between the years 1980 to 2020 are explored in the title, subject content, and keywords, and although 2706 sorts of documents were reached. In bibliometric analyses, the books, theses, reports, patents are considered as the elements taking place in the analyses made, the main element in the analyses consists of scientific articles (Karasözen et al 2009). In this study, 1736 articles in these sorts of documents were given place.

- The data obtained were analyzed by using the database "Web of Science Core Collection" and the software "Vos Viewer". This program was used in the analyses in the studies due to the fact that it can use special labeling as well as algorithms and techniques of text mining (Van Eck and Waltman, 2018) and that word maps can be formed in networks (Martinez et al., 2015), also using publications, general maps of publications, authors, and magazines, frequencies of appearing together, loads of relationship and total relationship.

3. Results

In this section of the study, the information belonging to publications and authors and findings reached as a result of the study will be given place.

3.1. The Numbers of Publications According to Categories

The studies carried out in the area of management accounting according to categories of Web of Science were shown in Figure 1.

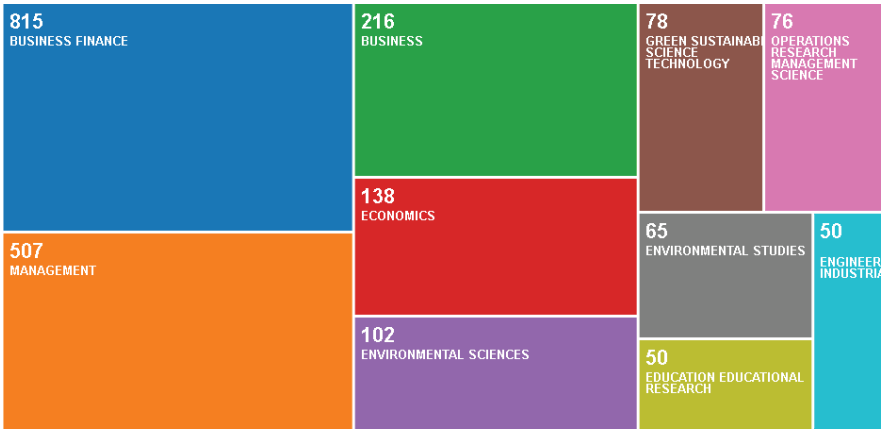

Figure 1. Web of Science Categories

It is seen that 176 articles were conducted the most in the area of business fiancé (815) among the categories determined by web of science. It is seen that 507 studies were carried out in the area of management (administration); 216 studies, in the area of business management; 138 studies, in the area of economics; and 167 studies, in the area of environmental science and research. That the total number is more than 1736 is due to the fact that the same study is reviewed in the different categories.

3.2. The number of publications by the years

Figure 2 that is related to the articles stored in Web of Science shows that the number of publications published with intervals of 5 years.

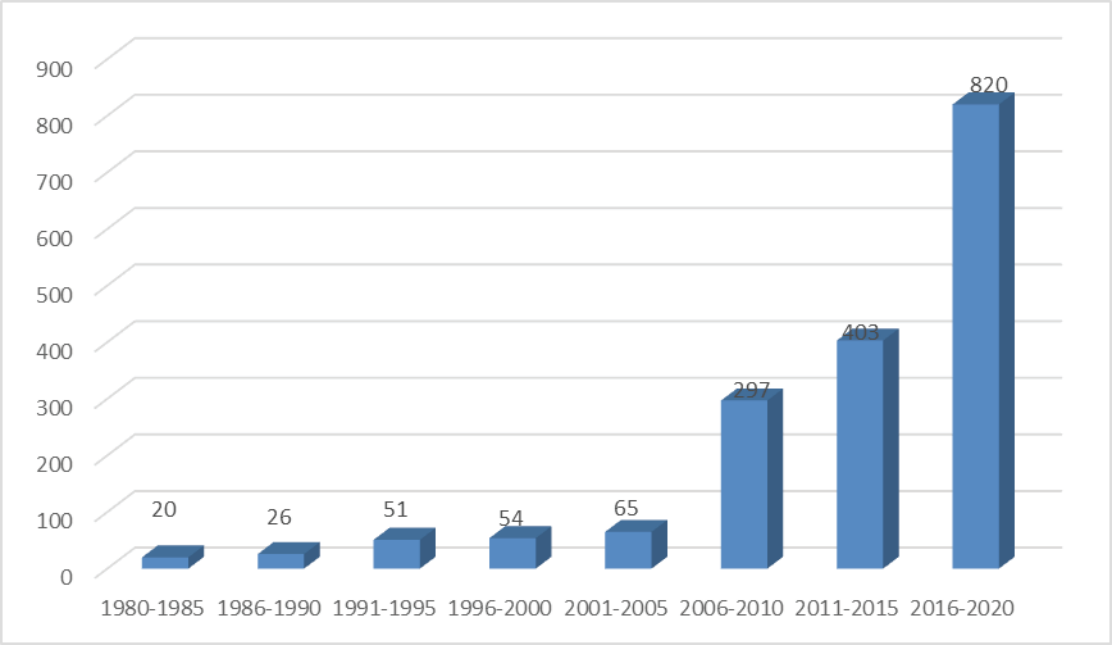

Figure 2. Distributions of Publications by The Years

When the distribution of 1736 articles published between the years 1980 to 2020 in the area of management accounting by the years is examined, it is seen that the most publication is made between the years 2016 to 2020. The publications made in this period consist of 47.14% of total publications. Between these years, the most publications were made in 2019 (n = 177). The case that is interesting is that within 4 years, the publication was made as many as 35 years of period

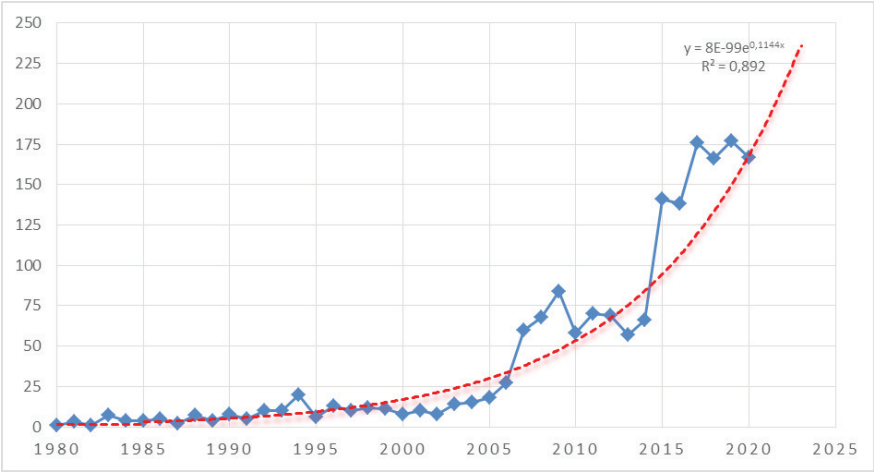

Figure 3. The distribution of publication number by the years and Trend analysis

As seen in Figure 3, beginning from the year 2005, in the studies carried out in the area of management accounting, an increase is observed. Although the articles published show increase in some years (2010, 2013, 2014, and 2016), when all figures of all periods are evaluated, these decreases in value mostly affect the development of articles published in the area of management accounting as well. The red line shown with dashed lines in the figure shows the tendency of the numbers of articles in the area of management accounting. That academic studies are in the tendency of increase by the years (Dabi et al., 2016) shows that there is an increase in scientific studies in parallel with the interest of business in management accounting in the recent year, and that this interest will increase in the next years.

3.3. Publication Languages

At the level of the contribution the academic studies carried out will make to each other, the use of common language is an important element. Figure 4 gives the results of the studies carried out according to publication languages.

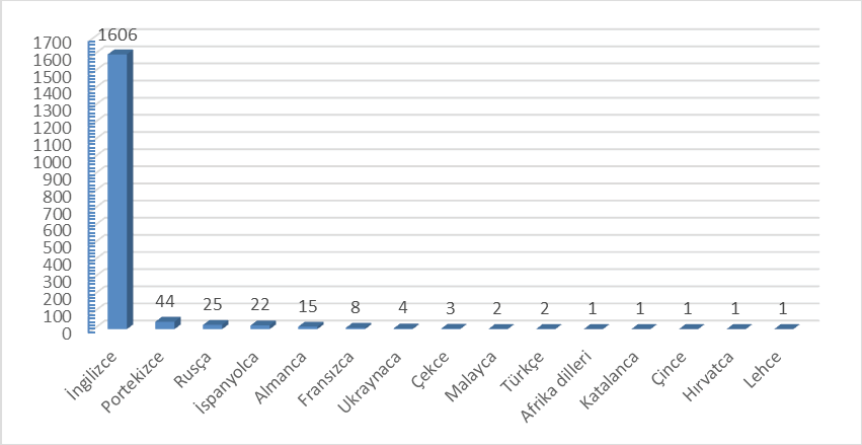

Figure 4. Distribution of Publications According to Languages

It is seen that the articles published are written in 15 different languages. An important part of 1736 studies (92.51%) is written in English. This result shows that English is used in publications made in the area of management accounting as common language. This case is an indicator of that scientific literature can be effectively used in terms of being able to build international standards and common international management accounting system. The publications made in English are followed by Portuguese with 2.54% and Russian with 1.44%.

3.4. The State of Publications According to the Countries

The state of publications according to countries are shown in Table 1. For the countries taking place in the table, threshold value was selected as 30 and the data of 21 different countries that are effective in the area of management were shared.

Table 1: Evaluation of The Articles Written in The Area of Management Accounting on The Basis of Countries

Rnk	Country	Rec.	% of 1736	Citations	Total link Stregnth	Clust.	Link	* Average Pub.Year	** Average Citations	*** Averag. Norm. Citat.
1	USA	292	16,82%	5763	114292	9	87	2009.4	19,74	0,9
2	Australia	168	9,68%	4834	145285	5	86	2013.32	28,77	1,6
3	England	158	9,10%	4268	131128	8	86	2011.74	27,01	1,51
4	Germany	128	7,37%	1851	91572	5	83	2014.73	14,46	1,31
5	Italy	78	4,49%	1061	64699	6	84	2015.75	13,60	1,41
6	Canada	71	4,09%	1764	43707	4	83	2013.58	24,85	1,21
7	Finland	70	4,03%	2067	64931	7	82	2012.88	29,53	1,59
8	Spain	63	3,63%	791	44422	3	82	2014.94	12,56	1,48
9	Netherland	62	3,57%	1413	65020	9	83	2013.98	22,79	1,88
10	France	60	3,46%	961	46385	6	86	2014.44	16,02	1,35
11	Brazil	59	3,40%	137	20305	3	81	2016.26	2,32	0,53
12	sweden	52	3,00%	1018	51034	7	81	2013.19	19,58	1,39
13	malaysia	44	2,53%	139	37403	4	82	2017.07	3,16	0,72
14	russia	38	2,19%	25	3468	1	71	2018.42	0,66	0,26
15	denmark	36	2,07%	468	26904	6	80	2013.60	13,00	1,05
16	japan	34	1,96%	193	7391	3	76	2012.35	5,68	0,54
17	austria	33	1,90%	553	19203	8	80	2012.79	16,76	1,23
18	ukraine	33	1,90%	9	549	1	53	2016.30	0,27	0,04
19	Peop.R.chin.	31	1,79%	463	17115	2	80	2013.83	14,94	1,01
20	norway	30	1,73%	311	26946	7	78	2015.07	10,37	0,83
21	romania	30	1,73%	57	4502	1	73	2013.07	1,90	0,18

*average year of publication of documents published by the country.

** the average number of citations received for documents published by the country.

***the average number of normalized citat. received for document published by the country

In the analyses made, it was identified that 3100 researchers from 91 different countries provided the articles contributing to the area. When Table 1 is examined, it is seen that the country publishing the most articles was USA (292) and t these include 16.82% of all articles; and that USA is followed by Australia (168) with 9.68%; United Kingdom (158), with 9.10% and Germany (128), with 7.37%. The fact that the average of publications made in USA is the year 2009 shows that the publications made for management accounting in USA in the recent time decrease. It is seen that the new publications for management accounting are made in the countries such as Russia, Malaysia, Ukraine, and Brazil.

The countries, whose average citation per article is the most effective, are Finland, Australia, and United Kingdom. However, the number of citation per article of the countries were rearranged by making normalization. Normalization corrects the fact that the new documents have more time than the old documents for making citation. When the

normalized citation values are examined, it is seen that Netherland (1.88), Australia (1.6), Finland (1.59), and United Kingdom (1.51) are the most effective countries. Network map of articles made on the basis of countries is given in Figure 5.

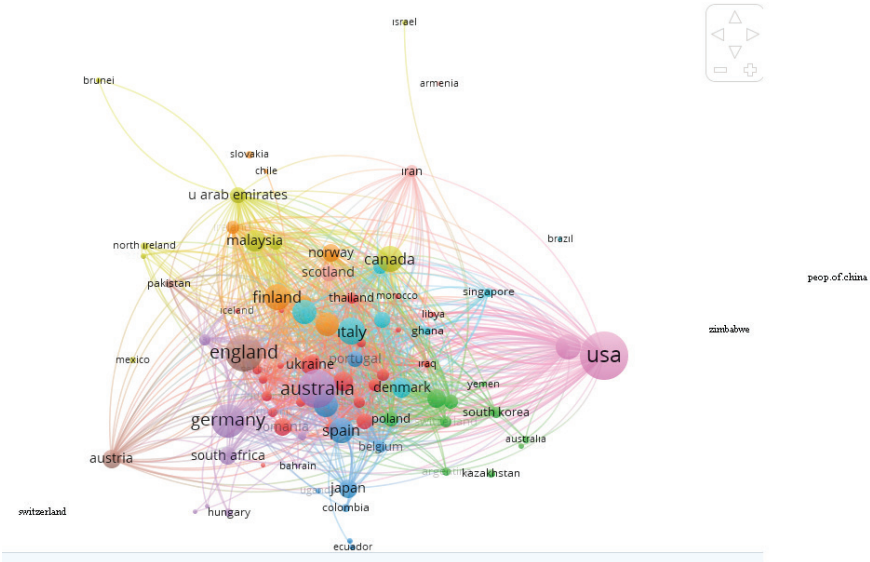

Figure 5. Network Map of Articles Made on The Basis of Countries

Network map of countries made in Figure 5, data of bibliographic coupling were obtained by selecting minimum number of documents as "1". When the map is examined, it is seen that there are 91 countries meeting these threshold values. In terms of network relationship, 10 different clustering were identified. Total power of countries related to bibliographic connections was calculated. Color of an element is determined by the cluster, to which that element belongs. The lines between elements represent connections. The size of circles grows according to the numbers of counties publish. It also shows that the relationship power of the counties that are close to each other on network are high. When regarded as circle size, it is seen that the studies carried out in Australia, United Kingdom, Germany, Spain, and Italy are in close connection to each other. As a result of that the number of studies carried out in USA also decrease, it is seen that the power of relationship with the other countries remains limited.

3.5. Institutional Analysis

As a result of bibliometric analysis in terms of universities, to which the authors of articles published between the years 1980-2020

subject, the data in Table 2 were reached. In the table, university data that have minimum 10 threshold values and over, published in the area of management accounting, were used.

Table 2. Institutional Data

University	Rec.	Country	Total Link Strength	Citat.	Clust.	Link	* Average year	** average citation	*** averagen nom cit.
Griffith University	20	Australia	26.148	428	3	961	2012,05	21,40	1,31
University Of Melbourne	17	Australia	21.682	868	1	1.011	2009,88	51,06	1,86
Unv. Of Manchester	16	U.K.	28.496	594	2	881	2012,31	37,13	2,20
Monash University	16	Australia	24.986	849	4	987	2010,38	53,06	1,99
Copenhagen Busin. Sch.	16	denmark	20.265	274	2	930	2013,44	17,13	1,36
York University Canada	16	Canada	8.356	150	1	811	2015,33	9,38	0,79
Macquarie University	15	Australia	22.476	223	3	950	2014,93	14,87	1,85
Univ Groningen	15	Holland	18.481	215	22	871	2015,07	14,33	1,45
Erasmus Unv. Rotterdam	16	Holand	24.679	492	3	963	2014,07	30,75	2,79
Michigan State Unv.	15	U.S.A.	23.669	416	1	916	2010,07	27,73	0,96
Univ S Australia	14	Australia	18.426	697	3	898	2011,64	49,79	2,42
Unv. Of Turku	13	Finland	23.001	243	2	922	2015,92	18,69	1,65
Queensland Unv. Tech.	12	Australia	19.550	75	16	941	2016,50	6,25	1,24
Turku Sch Econ &Bus.Ad.	12	Finland	16.263	529	2	858	2010,08	44,08	2,21
Univ Sout Australia	12	Australia	16.177	69	3	874	2017,91	5,75	1,35
Aarus Univ	12	Denmark	13.132	158	9	896	2015,55	13,17	0,96
Univ Sydney	12	Australia	11.872	147	3	882	2012,67	12,25	0,88
Orebro University	11	Sweden	20.641	466	2	735	2019,00	42,36	2,87
Siegen Univ.	11	Germany	15.805	108	2	815	2016,82	9,82	1,84
Unv İllionis	10	A.B.D.	8.526	122	1	776	2010,91	12,20	0,52
Univ Essex	10	U.K.	15.546	176	2	882	2011,90	17,60	0,95
Cardiff Unv.	10	U.K.	13.541	143	5	889	2012.40	14,30	1,23
Univ Oulu	10	Finland	10.958	166	11	775	2012,89	16,60	0,90
Univ Minhoo	10	Portugal	10.763	18	6	781	2016,80	1,80	0,36
Rmit Unv.	10	Australia	10.749	76	3	817	2015,89	7,60	0,87
Unv Fed Santa Catarina	10	Brazil	7.900	18	7	853	2017,80	1,80	0,95

* average year of publication of documents published by the university.

** the average number of citations received for documents published by the university.

***the average number of normalized citat. received for document published by the university.

A total number of universities, to which the authors make contribution to the formation of 1736 articles, is 1457. In the direction of the data of the universities making the most contribution, the university making the most publication (20) is Grifith University. Melbourne University follows it with 17 articles.

When evaluated in terms of total power of relationship, in terms of article studies in the area of management accounting, it is seen that Manchester and Griffith Universities form a high value. It attracts attention that Australian Universities are more effective among 26 universities making the most publications in the area of management accounting. Network map according to the total relationship power of universities is given in Figure 6.

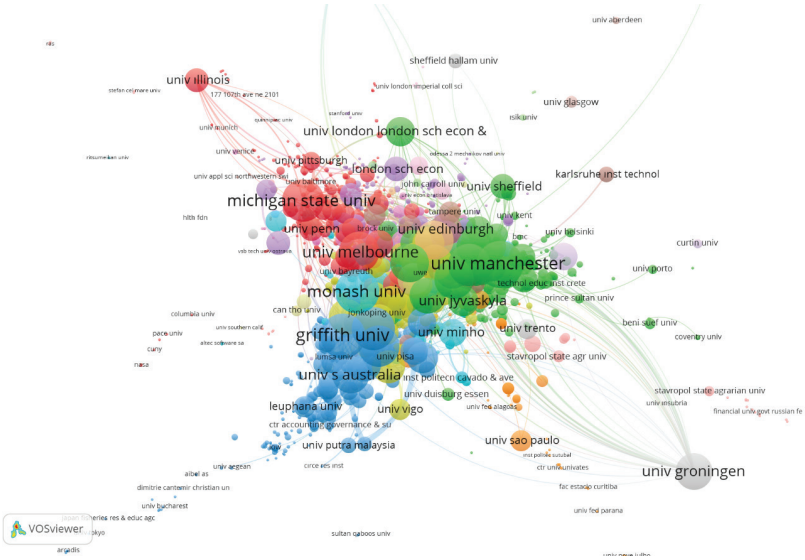

Figure 6. Network map according to the total relationship power of universities

When the figure is examined, the dimensions of universities that are in clusters state the total number of the studies cited from. Line thickness expresses the power of connection and its color, clustering. (Zhang et al., 2019). There are 31 different clusters identified in terms of relationships of universities. No. 1 (red), 2 (green), and 3 (blue) clusters show the universities, where relationship intensity is the most.

3.6. Authors

1736 articles considered in the scope of the study are written by 3109 different authors. 2202 authors, who have at least one articles, and whose study is cited at least one time, included in the study. Average number of author per article is 1.73. This rate is an indicator of group study in sufficient number is not carried out. The bibliographic results about the results publishing the most articles related to management accounting shown in Table 3.

Table 3. Authors and Bibliographic Results

Documents		Citations		Total Link Strength	
author	record	author	record	author	record
Schalteger, S.	16	Chenhall, R.H.	758	Schalteger, S.	21092
Lukka, K.	14	Schalteger, S.	720	Lukka, K.	20321
Quinn, M.	11	Malmi , T.	699	Henri, J.F.	18003
Buritt, R.L.	9	Abernethy, M.A.	690	Gomez, C.J.	17316
Van der stede, W.A.	9	Kaplan, R.S.	681	Hiebl, M.R.	16597
Hiebl, M.R.W.	9	Ittner, C.D.	626	Schield, M.D.	15696
Tucker, B. P.	9	Larcker, D.F.	582	Luft, J.	14840
Sprakman, G.	9	Buritt, R.L.	567	Spekle, R.	14638
Modell, S.	8	Lukka, K.	550	Scapens, R.W.	14338

In the studies the authors carried out related to management accounting, the authors publishing the most article are Stefan Schaltager (16), Kari Lukka (14) and Martin Quinn (11). When examined according to the numbers of citation, it is seen that the most referred author in the studies is Robert H. Chenhall (758). Robert H. Chennal is followed by Stefan Schaltager (720) and Teemu Malmi (699) in order. When examined in terms of total powers of relationship, in related to the number of articles they published, it is followed by Stefan Schaltager (21092) and Kari Lukka (20321). These authors are also followed by Henri (18003).

3.7. Keywords

In 1736 articles, 3868 keywords were used. When the relationship in case of using the keywords in article for 10 times, it is seen that 56 keywords meet this keyword.

For each of 56 keywords, total power of connections forming together with keywords is calculated by using wosviewer software Keywords expressing similar meaning are combined by synonyms dictionary, The keywords whose total power of connections are the highest were selected. In terms of the relationships of keywords to each other, network mapping results that are the remarkable results are shown in Figure 7.

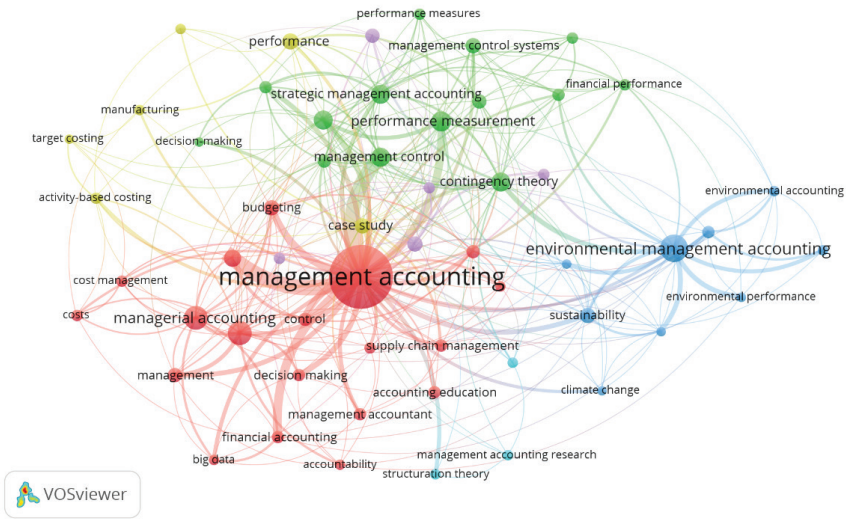

Figure 7: Relationship map related to keywords

56 keywords were used in 6 different ways. For each of keywords, the connection of forming together with the other keywords is 330, and total power of forming connection is 635. The most used keyword is Management Accounting (338). The keywords used in the process of 15 years, in which the studies carried out on management accounting show increase give information about the direction of the studies carried out on the domain. From his point of view, the results obtained are shown in Figure 8.

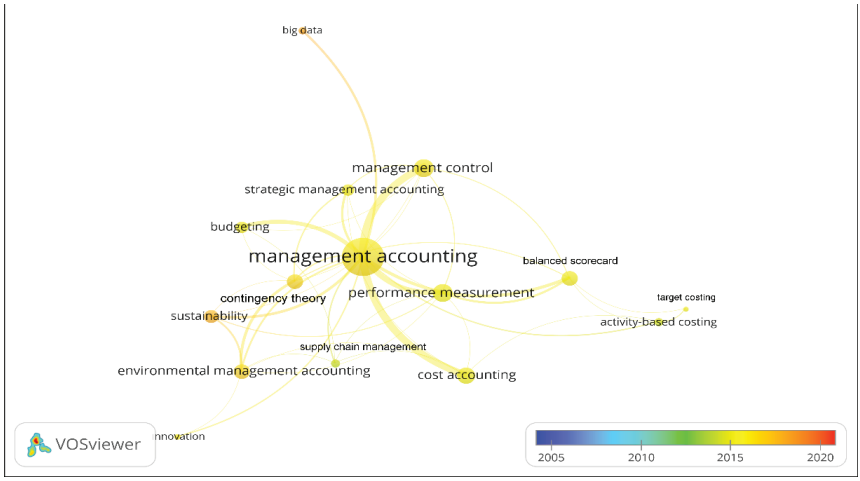

Figure 8: The keywords used in the last 15 years

When the relationship maps are examined, the width of circle gives the number of use; line thickness, relationship power. That the studies carried out on management accounting increased in the last process of 15 years had been demonstrated in Figure 3. In the articles published in this process of 15 years, the most used keywords are shown in Figure 8. The most used keyword is management accounting. The line thickness between the keywords of management accounting and of cost accounting and management control shows that relationship powers are high. In terms of circle width, the second most used keyword is environmental management accounting (EMA)". EMA is an integrated approach, which is formed by using the data of financial accounting, cost accounting, and material flow balance "for reducing material environmental effect and risk, lowering costs of environmental effect, and increasing the effectiveness of material", and which are used in the area of management accounting (Jasch 2003) .As a new orientation in the area of management accounting, environmental management accounting attracts interest as one of important studies carried out in the recent years. Another interest keyword is contingency theory. It is seen that the studies beginning with the article Hayes firstly published in 1977, in which contingency theory in the area of management accounting, titled "The Contingency Theory of Managerial Accounting" is discussed, are also effective in the recent years. When regarded from this point of view, it can be expressed hat contingency theory is one of important theories used in the domain.

Industry 4.0 revolution we are in also makes it necessary digital transformation in accounting area. For this purpose, there are 9 different digital technologies Industry 4.0 introduces (Rüßmann et al. 2015). "Big data" taking place among these technologies is one of the most used keywords in articles published in the area of management accounting this case shows that "Big Data" is the most interesting subject for digital transformation of management accounting.

Another keyword the most used is "strategic management accounting". CIMA-Chartered Institute of Management Accountants expresses that traditional management accounting should evolve in such a way that it will make contribution to strategic management and decision process of businesses (Belfo and Trigo, 2013). In the recent years, there is increase in academic studies carried out for strategic management accounting.

In the last 15 years, the other keywords used the most in the area of management accounting are "sustainability", "innovation", "supply chain management", "balanced scorecard", "target costing" and "activity based costing". Keywords are important in terms of giving an opinion about orientations of the studies carried out in the area of management accounting in the last 15 years.

3.8. Citations

In the area of management accounting, A total of 15,011 resources are cited by 1736 studies published between the years 1980-2020. A total number of citations made for 1736 studies is 27,253. This number is 21,972 without quoting from authors themselves. Among 1736 publications, while average number of citation per study is 15.73, annual number of citations 664.71. H-index value of the studies carried out in management accounting is calculated. H-index value is the indication of that the number of h-article, which is cited at least in the number of h, will have h-index in that value (Hirsch, 2005). The value of h-index obtained from the list of publications. The numbers of citations taken with intervals of 5 years are shown in the table in detail.

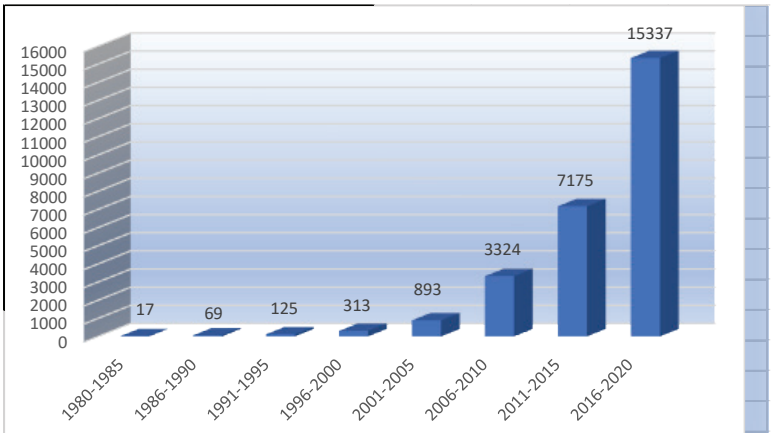

Figure 9. The numbers of citations by the years

When the number of citation by the years, it was observed that the most citation is made to 1736 articles in the year 2020. (n = 3929). The citations taken according to the periods of 5 years are seen to increase every period compared to the previous period. An important increase in the numbers of citations taken is observed in the last period of 10 years. 82.61 % of a total of citations taken actualize in the last period of 10 years.

For evaluating citations in terms of subject similarity and relationship power in the studies, there are comprehensive studies in the literature. In the study, the method of bibliographic coupling was applied. Firstly, in a study carried out by Kessler in 1963, method of bibliographic coupling was used. The articles, in whose references citation is made to one or more than one resources, are bibliographically coupling citations (Kessler, 1963).

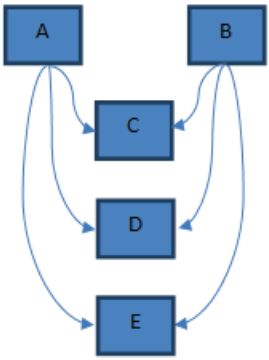

Figure 10. Bibliographic Coupling
Research : Surwase et al. 2011

Also in figure, bibliographic coupling relationship was schematically presented. As seen, in case that the two different resources make citation to the third common resources, bibliographic coupling occur (Rehn et al., 2014). In this case, together with the increase of the number of references that have common aspects, the power of bibliometric coupling will increase. Bibliometric coupling is used to predict how similar the subject of two articles is.

Between the years 1980-2020, according to the results of bibliometric coupling, the must cited articles are shown in the table.

Table 4. The most cited studies (Top 10)

Author	Name of Study	Reference	Year	Citation
Malmi, T.; Brown,D.A.	Management Control Systems As A Package-Opportunities, Challenges And Research Directions	Management Accounting Research	2008	513
Feltham, G.A.; Xie, J.	Performance-Measure Congruity and Diversity in Multitask Principal-Agent Relations	Accounting Review	1994	429
Ittner, C.D.; Larcker, D.F.	Assessing Empirical Research in Managerial Accounting: A Value-Based Management Perspective	Journal of Accounting & Economics	2001	406
Chenhall, R.H.;Morris, D.	The Impact of Structure, Environment, and Interdependence On The Perceived Usefulness of Management Accounting Systems	Accounting Review	1986	308
Kaplan, R.S.	Measuring Manufacturing Performance - a New Challenge for Managerial Accounting Research	Accounting Review	1983	293

Langfield, R.H.; Smith, K	The Relationship Between Strategic Priorities, Management Techniques and Management Accounting: An Empirical Investigation Using a Systems Approach	Accounting Organizations and Society	1998	267
Briers, M; Chua W.F.	The Role of Actor-Networks and Boundary Objects in Management Accounting Change: a Field Study of an Implementation of Activity-Based Costing	Accounting Organizations and Society	2001	263
Abernethy, M.A.; Brownell, P.	The Role Of Budgets in Organizations Facing Strategic Change: an Exploratory Study	Accounting Organizations and Society	1999	254
Luft J.; Shields M.D.	Mapping Management Accounting: Graphics and Guidelines for Theory-Consistent Empirical Research	Accounting Organizations and Society	2003	251
Ahrens, T.; Chapman, C.S.	Management Accounting as Practice	Accounting Organizations and Society	2007	251

Resource: It is compiled by the author from the page of web of science core collection

For showing bibliometric coupling, bibliometric mapping is shown in the figure.

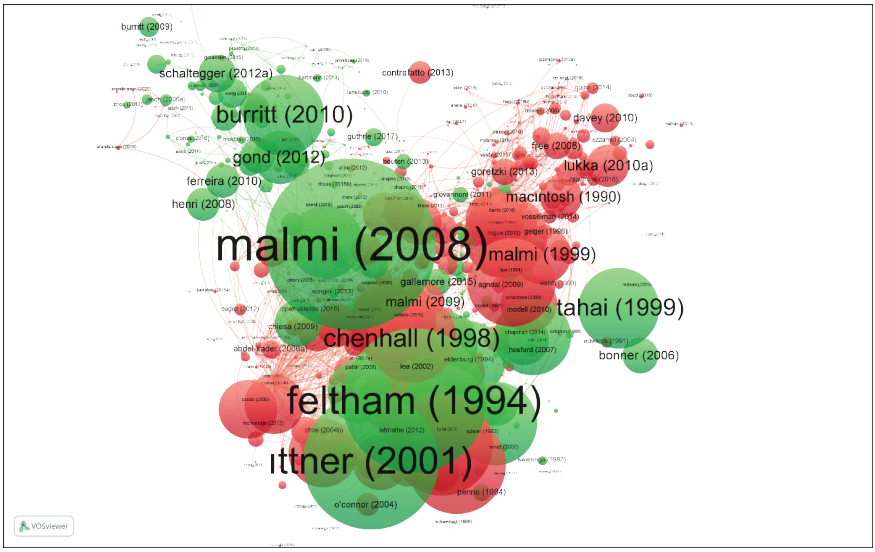

Figure 11. Connection map of citations

Bibliometric mapping is visual presentation of a bibliometric network, which is formed by using quantitative bibliometric data in scientific literature Van Eck, 2011). Connection map of citations shows that communication powers of the articles published by Malmi (2008),

Felham (1994) and Ittner (2001) are high in terms of bibliographic coupling.

When these three studies are examined, the article, titled "Management Control Systems as a Package-Opportunities, Challenges and Research Directions", published by Malmi and Brown in 2008, took 513 citations. In the study carried out, they introduced a new typology that is structured around five groups as control systems in management accounting, planning, cybernetics, award-compensation, and administrative and cultural control and, on these subjects, conducting a theoretical and empirical study and discussing the results they found, they made suggestions.

Feltham and Xie in 1994, n the study they carried out in 1994, for dealing with the economic effect of variations in compliance with performance measurement, problems encountered about achieving targets, and effect of uncontrollable events possible to occur in the future on performance measurements, studied the use of multiple performance measurements and, for this purpose, used the model of substitution theory. In the analysis hey made, nlikely similar literature studies, they take into consideration the measurements, in which more than one element of the action of manager can be effected in the subjects of performance measurement.

Ittner and Walker, in order to critically examine empirical studies in management accounting, titled "Assessing Empirical Research in Managerial Accounting: a Value-Based Management Perspective", they conducted in 2001, realized value-based management application. For this purpose, in the studies of recent period in 2001, they examine interesting management accounting –based studies. Emphasizing that the results they accepted the results in the previous studies, they identified the common methodologic and economic problems in the issues they considered deficient and made suggestions.

4. Conclusion

In global competition environment, in the direction of the effect of management accounting on the fast and effective process of making decision of business managements, it is seen that the interest in management accounting is growingly increasing in the area of both business world and academic area. In increase of this interest, there is an important effect of the technological developments Industry 4.0 introduces and digitalization. That especially technological developments makes accounting information easy, accurate, and usable releases that it is necessary to preferably and specifically study. It is seen from the results obtained that he interest in academic area especially in the last process

of 10 to 15 years. In the near future, it is expected to gradually increase this interest directed to management accounting, when the transformation cooperative robots and artificial intelligence will provide and financial engineering as management accountants in the future are considered

With this study, making bibliometric and documentary analysis of the articles published in the area of management accounting, the development of articles in the period of the last 40 years was developed. In the study, 1736 articles, written between the years 1980-2020, were reached in the database of web of science core collection for identifying the development of academic studies carried out in management accounting. The study areas, in which the most articles are written, are business finance (815), management (507), and business management (2016).

The most articles in the area of management accounting were published in 2019. In the period of the last five years, it is seen that there was an important increase in the number of article directed to management accounting in the period of the last five years. 47.14% of the articles written between the years 1980-2020 were published in this period. That academic studies are in the tendency of increase in years and the results of trend analysis we obtain show that the interest will also increase in the next years.

In interactions of academic studies to each other, it is a quite important subject to use common language. 92.5% of the studies carried out in the area of management were written in English.

In the analyses made, it is seen that 3109 researchers from 91 different countries made contribution to the area. The countries, where the most articles are published, USA (292). In terms of the studies carried out on management accounting, Australia, United Kingdom, Germany, and Italy are the other active countries. However, that publication average of the numbers of articles published in USA is the year 2000 is an indicator of that USA will lose publication effectivity compared to the other countries. In the recent years, increase is observed in the numbers of the studies carried out in the countries such as Russia, Malaysia, Ukraine and Brazil,

In the articles written on management accounting, the effectivity of Australia University attracts attention. Griffith University, with 20 publications, and Melbourne University, with 17 publications, in Australia take place in the top 2.

Among the authors publishing articles, the most articles were written by Stefan Schaltager (16). He is also the most effective author in terms of total power of relationship, In spite of this, when the numbers of citations are examined, the most cited author is seen to be Robert H. Chennal (758).

The keywords specified in articles provide information about the subjects related to management accounting. Among 1736 articles, 3868 keywords were used. The keywords used in the last period of 15 years will provide information about orientations in the recent past, today, future. Among the most used keywords in the recent periods, the concepts of environmental management accounting (EMA), contingency theory, strategic management accounting, cost accounting, managerial control performance measurements, budgeting, sustainability, and innovation as well as activity –based cost, target cost, chain supply management system, and balanced result card are of the important concepts that are interesting.

Another bibliometric analysis was made on citations. The average number of citations is 15.73 and H-index value is 80. In the numbers of citations, there is important increase in the process of the last ten years. 82.61 % of articles published in the last ten years. Between the years 1980-2020, the most cited article is the article, titled "Management Control Systems as a Package-Opportunities, Challenges and Research Directions", published by Malmi and Teemu in 2008. This article took 513 citations. When the connection map of citations is examined, the other most cited articles are the article, titled "Performance-Measure Congruity and Diversity in Multitask Principal-Agent Relations", written by Felham ve Xie' in 1994, and the article, titled "Assessing Empirical Research in Managerial Accounting: a Value-Based Management Perspective", written by Ittner and Larckerin in 2001.

That the studies carried out on management accounting are in the tendency of increase, has a quality of indicator producing studies in the area of accounting. For the next studies to be carried out, the studies to be carried out for strategic management strategy in the direction of contributing to strategic management processes, environmental management accounting, applying digital transformation that the innovations Industry 4.0 introduces to accounting system, Society 5.0 of industrial revolution of the future, and placing new orientations of education in management accounting in university curriculum by beginning license level are in the recommendation guiding to the academics and practitioners.

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Chapter 27

USING SIX SIGMA AND CAPABILITY MATURITY MODEL INTEGRATION APPROACHES TOGETHER TO IMPROVE THE BUSINESS PERFORMANCE IN THE STRATEGIC LEVEL

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1. Introduction

The act of supervising all operations and duties required to achieve a desired degree of performance is known as quality management. This involves developing a quality strategy, developing and executing quality planning and assurance, as well as quality management and quality development (Business Essentials, 2020).

Quality management guarantees that goods and services are of the highest possible quality. A product's quality could be calculated in terms of consistency, dependability, and longevity. Quality is a critical factor that distinguishes one company from its rivals. Value control tools ensure that improvements in procedures and processes result in higher-quality goods and services (MSG Management Study Guide, 2021).

The collection of practices included to determine which products and services follow standards and are continuously updated, is referred to as quality management and enhancement. Seeing as uncertainty is often a significant cause of low output, statistical methods, such as statistical strategic planning and engineered trials, seem to be the primary instruments for quality management and enhancement. Quality management is frequently carried out on a development approach, with committees headed by professionals with advanced knowledge of statistical techniques and expertise in their application. Quality Management is still relevant in today's world. Technology developments (social networks, ongoing communication, and so on.) have rendered Quality Management for any organization seeking to compete and expand their client base. Customer loyalty is the pillar upon which Quality Management is built. A household products business which is produced without the customer's desires in consideration can fail easily. Despite fundamental shifts, the industrial products market remains among the most innovative in the universe. In the growth and loss of an enterprise, quality plays a significant role. User can't be successful in the coming decades by deliberately ignoring an essential feature like consistency. By eliminating the process and devices flaws, six Sigma and Capability Maturity Model offer outstanding product and services efficiency. Six Sigma is the quality management approach used by companies, through identifying and removing errors, to enhance existing procedures, products or facilities (Russ et al., 2008; Six Sigma, 2018). As the other method, Capability Maturity Model (CMM) is often used as a criterion for measuring the maturity of system requirements within a corporation. For just about any product development business, CMM has been the most ideal process for maintaining the quality of the product, but development is little longer than intended. The aim is to simplify quality management in production or business processes so that

there is little or no variation across the board (The Capability Maturity Model, 2021).

2. Six Sigma Methodology

Six Sigma is a theory, a measurement, and a framework that gives companies an insight and resources to reach new standards and quality of success of all products or services. Six Sigma is more than just reliability; it is a lifestyle choice for certain specialists. Six Sigma as a theory assists businesses in achieving very low defects per million prospects over long exposure periods. It means a mechanism in which any meaning even outside the parameters is relatively uncommon. At Six Sigma, the goal is to optimize processes to maximize capacity and decrease heterogeneity, develop the Quality and provide the Quality management of a business. This method deals with solving problems. The emphasis is on market issues, which cause the company pressure and additional costs. It is not a list of best approaches or best practices. The challenges they face are different for each company. Six Sigma avoids immediate post approaches and explores root - cause analysis problems (Forest, 2003; Jeannine et al., 2005; Russ et al., 2008; Six Sigma, 2018).

This methodology is a comprehensive and scheduling for optimizing operations in many fields of company administration, while also enhancing managers' managerial skills, saving time, and encouraging cost effectiveness. One of Six Sigma's primary goals is to reduce error and deficiency. Organizations will enjoy the benefits of increased sales, higher quality programs, and improved employee productivity by improving efficiency and reducing variations in procedures. Continue reading to learn more about Six Sigma's seven main positions (Russ et al., 2008; Six Sigma, 2018; Isixsigma, 2021).

Table 1. *Six Sigma Roles and Responsibilities (Isixsigma, Six Sigma Roles and Responsibilities, Access Date: 12.03.2021)*

Sponsor	Senior executive who sponsors the overall Six Sigma initiative.
Leader	Senior-level executive who is responsible for implementing Six Sigma within the business.
Champion	Middle- or senior-level executive who sponsors a specific Six Sigma project, ensuring that resources are available and cross-functional issues are resolved.
Black Belt	Full-time professional who acts as a team leader on Six Sigma projects. Typically has four to five weeks of classroom training in methods, statistical tools and sometimes team skills.
Master Black Belt	Highly experienced and successful Black Belt who has managed several projects and is an expert in Six Sigma methods/tools. Responsible for coaching/mentoring/training Black Belts and for helping the Six Sigma leader and Champions keep the initiative on track.
Green Belt	Part-time professional who participates on a Black Belt project team or leads smaller projects. Typically has two weeks of classroom training in methods and basic statistical tools.
Team Member	Professional who has general awareness of Six Sigma (through no formal training) and who brings relevant experience or expertise to a particular project.
Process Owner	Professional responsible for the business process that is the target of a Six Sigma project.

Six Sigma is typically applied in organisations by the creation of Six Sigma programs. The definition of this concept is as below (Six Sigma - A complete Step-by-Step Guide by The Council for Six Sigma Certifications, 2018; Isixsigma, Six Sigma Roles and Responsibilities, 2021; Ohio University, The 7 Roles of Six Sigma, 2021; Six Sigma Certification Program, 2021);

Executive –Leader: Under the Six Sigma hierarchy, executives are the highest-ranking members of the team. Executives are well prepared with the organizational skills to formulate plans and center the Six Sigma initiative on a company's operational philosophy and priorities because they have the most knowledge and experience.

Champion: Continuing to work among Executives, the Six Sigma Champion plays a vital role at the general or middle executive level. It is the Champion's responsibility to consider the facts and quirks of an organization, including its vision, purpose, and indicators, and to use this knowledge to adapt the Six Sigma strategy to the organisation's objectives.

Black Belt: Certified Black Belts work full-time as team leaders with Six Sigma programs. According to the Six Sigma Academy, Black Belts could save companies an average of $230,000 per program those who guide, and they might accomplish four to six programs annually. Executives, Champions, and Master Black Belts are focused on identifying the strongest Six Sigma projects, whilst also Black Belts are focused on the specifics. They also received training in the central Six Sigma concepts, as well as understanding of the DMAIC (Define, Measure, Analyze, Improve, Control) and DMADV (Define, Measure, Analyze, Design, Verify) development frameworks.

Master Black Belts: Master Black Belts are specialists in Six Sigma's technique, tools, and procedures. A Master Black Belt's primary goal is to mentor and educate Black Belts. Individuals operate hand-in-hand through Six Sigma executives to ensure that business projects remain competitive, utilizing their specialized expertise in problem solving, strategy, resource allocation, and project implementation.

Green Belts: Green Belts are frequently part-time practitioners who perform a range of tasks, including assisting on Black Belt programs and overseeing different programs. They are taught problem-solving methods as well as the DMAIC development framework. When working on Black Belt programs, their responsibilities require collecting data, carrying out research, including reviewing results.

Yellow Belts: Yellow Belt credential denotes a working knowledge of Six Sigma's fundamental measurements and progress monitoring, as

well as the potential to incorporate them into a company's manufacturing structures. In the Six Sigma method, they play the part of a central group members. Yellow Belts are also subject material specialists, with the burden of leading smaller competence development due to their emphasis on a specific field of expertise.

White Belts: The White Belt is by far the most major impetus to the platform's technologies and methods at the beginner stage of Six Sigma. Human beings with White Belt certificates will work internationally to fix challenges and help programs, but they're not really part of the Six Sigma group. The White Belt level serves as a basis for those considering whether to proceed mostly with Six Sigma.

Top management in a Six Sigma initiative or company drive transformation, own the strategy, and control responsibilities. Challengers double as project managers when it comes to applying technology. They are often referred to as black belt bosses. Professional black belts work full-time and teach and coach other roles. They are also pioneers in mathematical problem solving. Green belts lead initiatives and assist black belts while black belts foster and exercise problem - solving abilities (Isixsigma, Six Sigma Roles And Responsibilities, 2021; Ohio University, The 7 Roles of Six Sigma, 2021).

Six sigma techniques include DMAIC (Define, Measure, Analyze, Improve, Control) and DFSS (Design for Six Sigma).The objective of Six Sigma implementation in the corporation's CMMI process area is to identify development opportunities, develop and design processes utilizing information that could potentially, and accomplish the technology association's intent and framework requirements. Six Sigma utilizes two techniques, the first of which is known as DMAIC – (Define, Measure, Analyze, Improve, Control)and is used to improve internal processes, which is where Six Sigma focuses its efforts. The second, Specification for Six Sigma (DFSS- Design For Six Sigma), can also be used to create a new method for a new product. (Persse, 2008; Scmdojo, 2021).

This type of development might benefit from both Six Sigma enhancement (DMAIC) and Six Sigma design (DFSS). The decision between the two is based on whether an update to an existing process or the definition of a new process is required in the process area's implementation. These definations of these concepts are as below (Persse, 2008; Xiaosong et al.,2008; Define-Measure-AnalyzeImprove-Control (DMAIC), 2021).

(i)DMAIC (Define, Measure, Analyze, Improve and Control): DMAIC approach is not a process manufacturing methodology; it is largely focused on the use of statistical process management, quality

tools, and process capacity analysis. The DMAIC method is intended to allow for versatility and iterative research if required. While the 5-step phase progresses, conclusions or hypotheses about the root cause of the issue may be disproved, prompting the business unit to reconsider them and amend or pursue alternate possibilities (Persse, 2008; Xiaosong et al., 2008; Define-Measure-AnalyzeImprove-Control (DMAIC), 2021; see Figure 1).

-*Define:* the issue and the scale of the development group's productive output.

-*Measure:* the actual state of the mechanism or results. Determine which data exists and where it came from. Create a strategy for gathering it.

-*Analyze:* the current output to identify the causes of the issue. Start to develop and evaluate arguments about the root cause of the problem using evaluation (both quantitative and qualitative).

-*Improve*: the situation by deciding on a compromise. Depending on the found root cause(s) in the previous step, approach the condition directly with a development.

-Control: the increased process or product output and ensure it meets the outcome(s). When the dilemma has been addressed, the modifications must be implemented and maintained over time.

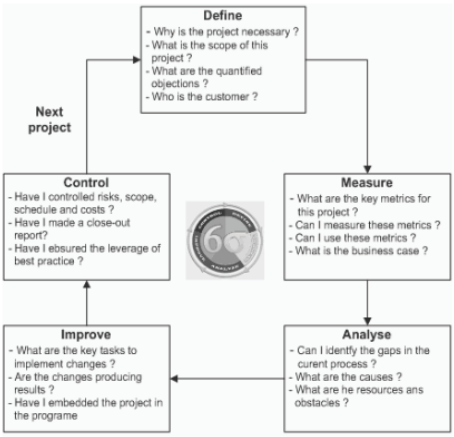

Figure 1. *The DMAIC process is a Six Sigma technique (Sokovic et al., 2010)*

One on each direction, the DMAIC framework of the Six Sigma approach has indeed been regarded as a systematic, assumption and data-driven methodology that may be a good fit for scalable processes. As a result, it is referred to us as a bandwidth methodology. In the describe

(D) step of DMAIC, estimation is critical. Since a method cannot be calculated until it is correctly specified, DMAIC cannot be used in enhancement measures. Issue classification (D), measurement of the issue (M), data review (D), improvement mechanism (I), and controlling (C) or measuring procedure to avoid repeated issues are the five stages of the DMAIC Six Sigma technique. (Aazadnia and Fasanghari, 2008; Sokovic et al., 2010; see Figure 1).

(ii) Design for Six Sigma (DFSS): This is used when we want to create a new process. This is often referred to as DMADV (Define, Measure, Analyze, Design, and Verify). DMADV is a Six Sigma paradigm which involves the development of a service provider, goods, or operation rather than optimizing an existing one. Due to its high data-driven foundation, early detection of accomplishment, and rigorous research, this method – Define, Measure, Analyze, Design, Verify – is particularly useful when introducing new strategies and policies. All these steps are almost similar to DMAIC which is discussed above. (Persse, 2008; What is DMADV, 2021).

For business processes, DMAIC approach is intended to increase the capacity of existing procedures, products and services. It seeks to eliminate systemic defects and reduce waste. It is also focused on statistical methods. DFSS approach is helpful in developing innovative products, systems and facilities for process improvements. This technique is designed and not tested to ensure the consistency is incorporated. The objective of DFSS is to systematically develop innovation and ingenuity based on non-deterministic and predictive risk modeling and evaluation techniques. Six Sigma implements these two methods. These techniques are used to carry out Six Sigma implementations. Six Sigma methods include descriptive statistical analysis, a run table, a control chart, a potential graphic, check sheets, a pareto chart, brainstorming, affinity diagrams, inter - relationships diagrams, matrix diagrams and optimisation matrices, quality function distribution, singular event analysis of variance, arrangement of tests, and so on (Hefner and Sturgeon, 2002; Siviy et al., 2007; ISixSigma-Design-Six-Sigma-Dfss-Versus-Dmaic, 2021).

This research is intended to suggest a strategy which demonstrates the application of six sigma tools and techniques in the field of decision analysis and resolution in Capability Maturity Model Integration (CMMI). Even though researches on the applicability of six sigma tools and techniques in various CMMI core processes emerge, in earlier studies a systemic approach is not suggested. This research therefore meets the need for the potential application in CMMI and Six Sigma methods. This research offers a broad spectrum of CMMI, popular in software and management framework over the past decade.

3. Capability Maturity Model Integration (CMMI)

CMMI is a model of best policies that enhance organisations to develop their operations. This model was created by development team from business, the government and the Institute of Software Engineering (SEI). CMMI can be summarized for the reason as systems improvement for improved goods and services growth. CMMI addresses activities which extend from design through distribution and management to the life cycle of a product. CMMI is used for improvement in corporations, in numerous sectors, including aviation, finance, computer components, applications, security, automotive and telecommunications. CMMI offers a blueprint on which the business operations could be based. It could also be defined as a context which defines essential elements of successful processing, a framework to guide everyones business intelligence changes, and best practice which tells you when it should be done, but not how it should be done or who should. CMMI offers advice to enhance the processes and capacity of your company to handle goods or services production, purchase and maintenance. CMMI incorporates validated strategies into a framework that enables businesses to evaluate their systems and identifies change goals that aim to implement these enhancements. The implementation of CMMI includes the methods of project management, operation management, system engineering, hardware engineering, software engineering and other development and implementation supporting processes (Hefner and Sturgeon ,2002; Constantinuces and Lacob, 2007; Siviy et al., 2007; Chrissis et al., 2011; CMMI Maturity Levels, 2021).

A Capability Maturity Model (CMM), such as CMMI, is a simplistic interpretation of truth. CMMs have all of the required components of efficient systems. CMMs are concerned with optimizing operations within an enterprise. They provide the basic elements of suitable methods for one or more fields and identify an incremental improvement journey from ad hoc, inexperienced practices to standardized, efficient applications with enhancing customer satisfaction. The CMMI Layer supports the model for establishing CMMI frameworks, teaching, and assessment elements. Model components are categorized as either universal to all CMMI models or appropriate to a particular process and enables for the inclusion of different frameworks even within Process of building (Constantinuces and Lacob, 2007; Chrissis et al., 2011; Rodrigues and Lingappa, 2014; CMMI Maturity Levels, 2021).

CMMI provides two development directions based on stages. One direction allows organisations to incrementally develop procedures associated with a single process area (or collection of knowledge areas) chosen by the organisation. The other approach allows enterprises to

develop a series of similar procedures by approaching consecutive sets of process areas progressively.

3.1. Capability Maturity Model Integration (CMMI) Model Components

Components of CMMI Approach to development are divided into three considered necessary, planned and insightful categories. The corresponding values are CMMI specifications which are important for improving processes in a specific process environment. Relevant and generic objectives are the components needed for CMMI. Objective engagement is often used in assessments to determine whether the process field has indeed been fulfilled. The CMMI components expected are describing the activity that is significant for achieving a CMMI component needed. The components expected direct those who conduct or carry out changes. Unique and general activities are the expected parts of CMMI. CMMI components are informative components that help model consumers know the CMMI material requirements and anticipated. This elements may be containers of examples, specific statistics or other useful information. Informative model elements are subpractices, notices, guides, descriptions of the targets, descriptions of implementation, sources, research products examples and general experience (Chrissis et al., 2011; CMMI Maturity Levels, 2021). Figure 2 shows CMMI model elements. Figure 1 summarizes the model modules aligned with Part Two to demonstrate their associations.

The parts that follow include comprehensive explanations of the CMMI components.

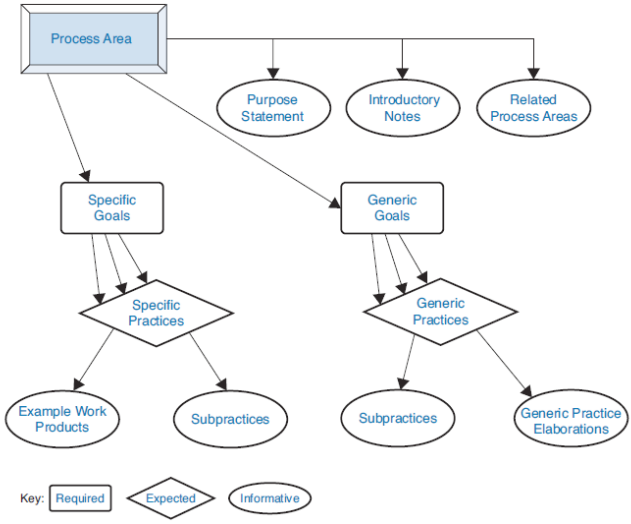

Figure 2. *CMMI Model Components (Chrissis et al., 2011, p.21)*

CMMI defines an association's business processes. Companies may use these methodologies to refine their processes for developing, purchasing, and managing goods and services. Though a new business will choose to use these best practices to develop its procedures, they are most generally of interest to organisations looking to enhance their operational practices. In order to understand CMMI procedures, certain organisations have to use research evidence. While business processes represent actions that should be observed in every organisation, processes are always understood by using thorough understanding of CMMI, the discipline(s), the association, the market climate, and the specifications (Gon et al., 2008; Chrissis et al., 2011; CMMI Institute, 2017).

3.2. Levels of development for Capability Maturity Model Integration (CMMI)

The Levels of CMMMI are presented in Table. The description of these levels is given according to the table.

Table 1. *Comparison of Capability and Maturity Levels (Chrissis et al., 2011)*

Level	*Continuous Representation Capability Levels*	*Staged Representation Maturity Levels*
Level 0	Incomplete	
Level 1	Performed	Initial
Level 2	Managed	Managed
Level 3	Defined	Defined
Level 4		Quantitatively Managed
Level 5		Optimizing

The four performance levels to the five competence levels are presented in Table 1. Two of the levels provide the same descriptions in all depictions (i.e., Managed and Defined). The distinctions are that there has been no maturity level 0; there are no capability Levels- levels 4 and 5; and at level 1, the descriptions for capability level 1 and maturity level 1 appear distinct. Capability standards refer to an association's accomplishment in process change in specific process fields. These thresholds are used to incrementally improve the processes associated with a certain process field. The four capability Levels-ranges are numbered 0 through 3. Maturity thresholds contribute to an association's accomplishment of process change across various process fields. These thresholds are used to improve the procedures associated with a certain collection of process areas. The increase level is associated with choosing a certain process area to develop as well as the optimal capacity level for that process area. In this sense, whether such a procedure is completed or not is significant. As a result, the coherent interpretation excellent service

is assigned the term "Incomplete." The staged interpretation is associated with choosing several process areas to develop inside a maturity level; ensuring specific processes are completed or not is not a primary concern (Gon et al., 2008; Chrissis et al., 2011; CMMI Institute, 2017).

As a result, the stage managed interpretation significant critical is assigned the term "Initial." Both capacity and maturity thresholds offer a means to enhance an organization 's operations and assess how effectively organisations do and how to monitor their performance. The Software Engineering Institute of Carnegie Mellon University created CMMI (Capability Maturity Model Integration), which describes CMMI only as functionality enhancement framework which could be applied to address any existing problems at any stage of the enterprise in almost any sector (Chrissis et al., 2011, CMMI Maturity Levels, 2011; CMMI Institute, 2017). It divides organizational maturity into five categories, which are labeled as follows: 1st Maturity Level Managed Maturity Level 3 Initial Maturity Level 2 Level 4 of Established Maturity Maturity Level 5: Quantitatively Controlled Optimisation (Gon et al., 2008; Chrissis et al., 2011, CMMI Maturity Levels, 2011; CMMI Institute, 2017).

4. CMMI and Six Sigma Together

Six Sigma establishes a framework for maintaining progress in the improved level. It hastens the CMMI transition. All employees should receive basic instruction on the techniques utilized, and chosen individuals should be well-trained to direct others. Standard six sigma teaching is unrelated to software creation. Shared tasks in both techniques, as well as cross training, are needed. This method can be used successfully at all CMMI maturity stages. Six Sigma benefits from CMMI when it comes to establishing operational infrastructure. By recognizing customer requirements and reducing defects, Six Sigma integrates performance management and business profitability. CMMI is concerned with systemic transition. Six sigma depends on procedure and practice results rather than testing conformity against a specification or framework, as CMMI does. Six Sigma determines the activities are required in the enterprise, while CMMI determines how they can be executed. Six Sigma's improvement goal is similar to CMMI's, which is to raise the overall enterprise's quality control standard. CMMI places a greater emphasis on procedure standardization and systematization. Six Sigma includes an improvement mechanism for dealing with complex software consistency issues (Xiaosong et al., 2008; Gon et al., 2008; Rodrigues and Lingappa, 2014).

Six Sigma is a well-integrated strategy. Six sigma is a formal, mathematical approach that has proven to be popular in the automotive sector. As a result, it can also be seen in the electronics industry.

Integrating CMMI and six sigma will result in the development of new methodologies. Business approaches which are associated with software could be licensed. Six sigma is in CMMI level 4 or 5 for quality development and technological improvements. Six Sigma is regarded to be equal to CMMI maturity levels 4 and 5. Six sigma processes could be implemented through lower maturity levels to achieve the six sigma mark in less time (see Table 2; Hong and Goh, 2003; Rodrigues and Lingappa, 2014).

Table 2. *Six Sigma phases associated with key process areas of CMMI maturity levels (Rodrigues and Lingappa, 2014)*

CMMI Level	Focus	Process Areas	Six Sigma Phase
5 Optimizing	Continuous Process Improvement	Organizational Innovation & Deployment	Improve
		Causal Analysis & Resolution	Analyze
4 Quantitatively Managed	Quantitatively Managed	Organizational Process Performance	Analyze
		Quantitative Project Management	Control
3 Defined	Process Standardization	Requirements Development	Define
		Technical Solution	Improve
		Product Integration	Improve
		Verification	Measure
		Validation	Measure
		Organizational Process Focus	Improve
		Organizational Process Definition	Define
		Organizational Training	Improve
		Integrated Project Management (with IPPD extras)	Control
		Risk Management	Control
		Decision Analysis & Resolution	Analyze
		Integrated Teaming(IPPD only)	Define
		Organizational Environment for Integration (IPPD only)	Control
		Integrated Supplier Management(SS only)	Improve
2 Managed	Basic Project Management	Requirements Management	Analyze
		Project Planning	Define
		Project Monitoring & Control	Control
		Supplier Agreement Management	Define
		Measurement & Analysis	Measure
		Process & Product Quality Assurance	Improve
		Configuration Management	Define
1 Initial	Informal & Ad hoc Process		

CMMI and Six Sigma could be integrated in many aspects, as seen below (Siviy et al., 2005; Siviy et al., 2007; Rodrigues and Lingappa, 2014);

Convert CMMI process areas into Six Sigma programs; Using Six Sigma as a strategic driver to achieve high capability and sophistication; Utilizing Six Sigma to strengthen or refine a company's implementation strategy and operations; Implement CMMI, Six Sigma, and all other enhancement programs to establish a framework for implementation process over the product lifecycle.

The study '*Can a Manufacturing Quality Model Work for Software'* sparked the idea of combining CMMI and Six Sigma. Formalized paraphrase According to this report, Six Sigma could be attributed not just to the manufacturing and service industries, but also to the tech industry. Another research presents a method for defining, emphasizing, and categorizing change and advancement behavior utilizing Six Sigma

in accordance with CMMI level 5. It moreover provides a functional application of the proposed solution. Six Sigma will assist in implementing the activities of the CMMI level 5 method fields of Causal Analysis and Resolution (CAR) and Organizational Innovation and Deployment (OID), which aspire at finding progress and innovation incentives and designing actions to address challenges and execute these enhancements and developments (Hefner and Sturgeon, 2002; Phillips , 2004; Siviy et al., 2007; see Figure 3).

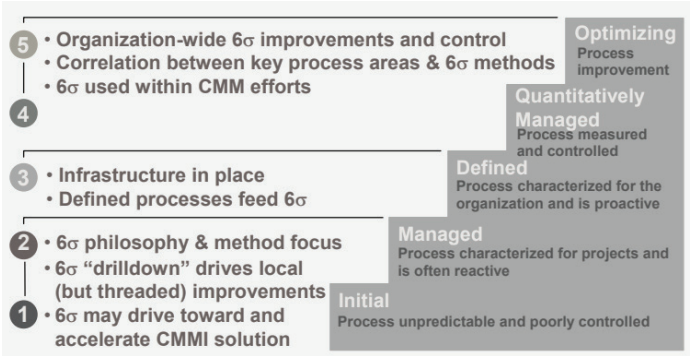

Figure 3. *CMMI Levels Representation and Six Sigma (Siviy et al., 2005, p.18)*

CMMI would be adopted by first customizing it to their needs and then combining the cut-down variant with Six Sigma's DMAIC technique to minimize the time taken to achieve CMMI. Levels 2 and 3 of Maturity This research also suggests using common models and Six Sigma techniques to manage and monitor CMMI objects in various process areas such as project preparation and operations and product performance measurement. An even more research explains the association involving CMMI and Six Sigma. Six Sigma has found its way into an engineering discipline as CMMI has become more institutionalized. In various studies some additional studies are suggested (Hefner and Sturgeon, 2002; Siviy et al., 2007; see Figure 3).

Six-sigma strengthens mission orientation, and the business deployment approach fosters cultural transformation that is beneficial to CMMI adoption. Organizations who strive to enhance their procedures have often found themselves balancing these in recent years. In two methods for achieving progress to be more successful, all change programs chosen should be adopted as a whole, rather than as a series of layered or stovepiped attempts. To effectively incorporate CMMI and sig-sigma together, an analysis of the variations, synergies, and relations between the two common initiatives is needed (Siviy et al., 2005; Siviy et al., 2007). As a result, Siviy et al.(2007) identified the interactions between these two

methods; they investigated the relationships within CMMI and six-sigma and demonstrated that six-sigma and CMMI could be used collaboratively to synergize these strategies, however they did not provide a framework of how they could be used together in a rigorous and structured manner (Siviy et al., 2007).

5. A Section of Research-Studies of This Issue

The approach of Haouzi et al.(2013) tries to choose an outline of modeling and analysis design methods in the form of Intelligent Manufacturing Systems (IMS). This analysis concentrates on the predictive capabilities of simulation models as a result of the emergence of emerging paradigms, such as intelligent products and the Digital revolution. Besides assessing adaptive capability, a Capability Maturity Method is constructed (Haouzi et al., 2013).

The study of Jevgeni et al.(2015) provides a new paradigm for implementation and evaluation of manufacturing process efficiency and product utilization. The new paradigm enables engineers to identify and quantify development process failures with less effort, as well as analyze these failures. It is possible to accomplish this by defining the most important activities in the network that have an effect on Key Performance Indicators (KPIs) such as the process's throughput. The following research includes a general definition of enhancement methodology, accompanied by the implementation and explanation of a system; however, a scenario pertaining to the research is being considered to apply the structure and envision the outcomes (Jevgeni et al., 2015).

Titmarsh et al. (2020) 's study suggests a method for using six sigma to meet the criteria for sustainable production from the standpoint of Industry 4.0 and its enablers. It is investigated how information and communication technology (ICTs) affect the relationship between sustainable production 6R and lean six sigma DMAIC. The feasibility of the suggested solution is investigated using a situational analysis of a cylinder cell battery production line. Finally, combining Six Sigma instruments, KPIs, and 6R components provides the consumer with an additional dimension to display the output status and make more educated decisions. In line with new industrial technology of Industry 4.0 and an industry-wide target to mitigate waste, the integration of Lean Six Sigma and 6R offers a greater future opportunity for sustainable production (Titmarsh et al., 2020). The research of Huang and Han (2006) provides a decision support structure that allows organizations determine the objectives of the CMMI process areas depending on the type of the would be created.

The maturity model is a set of approaches and methodologies that allows for a thorough assessment of an association's competitive advantages in handling and enhancing critical variables that contribute to the achievement of defined objectives. They are an intervention at objective assessment of qualitative characteristics. Being far more mature entails systematic improvement of organizational corporate structures so that they can achieve better efficiency over time (Hammer, 2007; Looy, 2014; Kosieradzka, 2017).

Kosieradzka (2017) introduces the Productivity Management Paradigm, a framework of enterprise sophistication in the production management field that he created. The model's goal is to organize a method of streamlined application of contemporary production management principles that will be successful in growing business productivity.

An analytical research by Niazi et al.(2005) offered a realistic framework for assessing and improving SPI deployment processes. A few experiments have compared CMMI to ISO 9001: 2000. CMMI content and ISO 9001 specifications are unified; this is achieved by applying CMMI practices to ISO requirements or by modifying ISO requirements to properly reflect the contents of CMMI practices. Combining CMMI and six sigma would result in significant synergies (Mutafelija and Stromberg, 2003; Niazi et al., 2005; Hefner , 2005; Mutafelija and Stromberg, 2008; Tomar, 2020).

6. The Disparity Among Six Sigma And The Capability Maturity Model Integration (CMMI)

Respectively Six Sigma and CMMI bring benefit to companies by reducing mistakes, prices, waste, and inefficiencies. Both approaches help to enhance organizational structures in order to meet realistic objectives and expectations more quickly and efficiently. The primary distinction regarding six sigma and CMMI is whether CMMI was created by the computing industry and thus has a narrower range than six sigma, that is more widely utilized. One other significant distinction among six sigma and CMMI seems to be that the six sigma methodology incorporates methods for identifying, measuring, tracking, and evaluating the efficacy of change initiative. One other significant distinction regarding six sigma and CMMI would be that the six sigma methodology incorporates methods for identifying, measuring, tracking, and evaluating the success of process management functions. CMMI, one on each direction, is a compilation of instructions for management process that takes a *how to* perspective. CMMI is daily reference and it emphasizes on process development across particular key processes. Six sigma, on the other hand, uses a broader approach to strengthening operations and removing deficiencies

on an organizational basis throughout many realms (Hefner and Sturgeon, 2002; Phillips , 2004; Siviy et al., 2005; Siviy et al., 2007).

The summary of this issue is presented as below;

- Six Sigma and CMMI (Capability Maturity Model Integration) are two examples of approaches that seek to enhance industrial structures in order to more efficiently achieve industrial and organizational objectives.

-Six sigma is a set of strategies and procedures for improving systems with the aim of lowering defects and failure rates.

- A flaw, according to the six sigma principle, is any operation or performance that does not meet consumer expectations.

-Six sigma is a methodology for improving the efficiency of a company's different systems and procedures by first recognizing the causes of failures, then eliminating those reasons and reducing uncertainty in business-industrial operations.

The competence maturity model integration (CMMI) is a business process framework that would be used to direct and impact the development and advancement of systems that help business' achieve due to their objectives.

7. Conclusion

A company requires a framework to inspire workers to meet process success targets and to foster an atmosphere conducive to Continual Improvement (CI). The mechanism must promote product efficiency, performance metrics, and technological knowledge within the enterprise. In order to attain process efficiency metrics, the enterprise must also include and manage the facilities. DMAIC technique of the Six Sigma strategy has been used to offer new knowledge to Informatics positions in order for them to accurately detect and develop infrastructure. Through furthermore, the approach was demonstrated with a relevant central concept to demonstrate its generalizability. Eventually, the technique is analyzed utilizing descriptive assess approach's interactive literature review. CMMI offers a straightforward methodological framework, and Six Sigma may provide information and technologies that are required by CMMI.

Six Sigma is known in the corporate world as a business technique used to increase business performance, to improve the performance and productivity of all activities in order to satisfy or surpass consumer needs and expectations (Anthony and Banuelas, 2001). As companies understood the advantages of the Six Sigma strategy, they quickly extended it to other

functional fields such as communications, engineering, sourcing, customer care, and support services (Anthony and Banuelas, 2001; Anbari, 2014).

There are different sophistication frameworks and various expenses in today's car industry that could assist a company in altering the way it conducts business. The most common models may be problem-oriented types like Ford's 8D (Eight disciplines problem solving), innovation-oriented types like DMADV (Define, Measure, Analyze, Design, and Verify) of 6 sigma, and Japanese task-oriented types like QC (Quality Control) Tale, among others. However, the majority of these 'kaizen' or 'ongoing improvement' approaches only focusing on a single area of the market and do not take a systemic approach to solving issues through the whole enterprise. By focusing on one aspect of a market, these models have sadly perpetuated the obstacles that remain throughout organisations and were frequently unable to overcome them (Gibson et al., 2006; Lin et al., 2009). The Software Engineering Institute (SEI) developed CMMI in 2002. The basic philosophy of CMMI is CI on the software development process as it matures. After its debut, the platform has sparked intense interest not only in the software engineering area, but also in the hardware engineering field. An analysis of the literature found that the majority of CMMI-related research concentrated on the computing industry, with less studies involving enterprise applications. Previous literatures did not provide 'how' to consistently mature an organization's procedures, while CMMI could include advice on 'what' to do to enhance processes within an organization (Paulk et al., 2002; Lin et al., 2009).

CI methodologies that are limited to a specific procedure or field of a market. It can also provide the car industry with a comprehensive range of processes. CMMI provides a statistical sequence of five maturity stages and related procedures to supplement existing practices' shortcomings. The CMMI serves as a reference metric for measuring a company's maturity level. Third, the six-sigma approach is used to define challenges and prospects for change in all processes. If the issue issues have been addressed, higher production goals and maturity thresholds should be pursued in order to achieve quality growth (Herbsleb et al., 1997; Lin et al., 2009).

In terms of CMMI, several previous researchers have used the questionnaire survey approach to investigate the causes that positively or negatively affect software process improvement (SPI). According to research, the CMMI model could help in the production of high-quality applications while reducing costs and time as well as increasing efficiency (Butler, 1995; Herbsleb et al., 1997; Yamamura, 1999; Lin et al., 2009).

CMMI and Six Sigma have incorporated in this analysis. Following that, a review of literature on the combination of these two models is given. In ongoing studies, an implementation of the proposed solution or other methods that combine Six Sigma and CMMI process areas may be suggested. The Six Sigma approach combines profound knowledge of structures, procedures, engineering, analytics, and project planning to increase efficiency and execution, minimize duplication and expense, create robust goods and processes, and maximize and maintain the employee's productivity through continuous system development.

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