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**DEPARTMENT OF ECONOMICS**  
**ECONOMICS PROGRAM**  
**MASTER'S THESIS**

**THE IMPACT OF SOCIAL CAPITAL ON SUBJECTIVE  
WELL-BEING IN TURKEY**

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**İZMİR, 2019**



## DECLARATION

I hereby declare that this master's thesis/non-thesis master's thesis titled as "The Impact of Social Capital on Subjective Well-Being in Turkey" has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honour.

28/10/2019

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## **ABSTRACT**

**Master's Thesis**

**The Impact of Social Capital on Subjective Well-Being**

**in Turkey**

**Duygu İNCE**

**Dokuz Eylül University**

**Graduate School of Social Sciences**

**Department of Economics**

**Economics Program**

**This research explores the impact of social capital on subjective well-being in Turkey by using World Values Survey conducted in 5 different waves for 1990 to 2014 period. Our dependent variables used as forms to measure subjective well-being are happiness and life satisfaction. This study takes into account trust as social capital in addition to previous studies on happiness and life satisfaction. The other independent variables that are used to control for demographics are age, sex, education level, employment status, income and confidence in governmental and political institutions. By comparing the determinants of happiness, life satisfaction and social capital over different years, this research aims to provide forecasting for policy makers and professionals to improve the perceived lives of Turkish people.**

**Keywords: Life Satisfaction, Happiness, Social Capital, Subjective Well-Being, Turkey.**

## ÖZET

Yüksek Lisans Tezi

Türkiye’de Sosyal Sermayenin Öznel Refah Üzerindeki Etkisi

Duygu İNCE

Dokuz Eylül Üniversitesi

Sosyal Bilimler Enstitüsü

İngilizce İktisat Anabilim Dalı

İngilizce İktisat Programı

Bu çalışma, 1990’dan 2014’e kadar 5 farklı dalga halinde yapılan Dünya Değerler Araştırması’nı kullanarak Türkiye’de sosyal sermayenin öznel refah üzerindeki etkisini araştırıyor. Öznel refah seviyesini ölçmek için kullanılan bağımlı değişkenlerimiz mutluluk ve yaşam doyumdur. Bu çalışma mutluluk ve yaşam doyum üzerine yapılan çalışmalara ek olarak sosyal sermaye kapsamında güven endeksini kullanıyor. Sosyal sermaye ek olarak kullanılan diğer bağımsız demografik değişkenler yaş, cinsiyet, eğitim seviyesi, istihdam durumu, gelir ve kamu ve politik kurumlara olan güvendir. Çalışmanın amacı mutluluk, yaşam doyumunu ve sosyal sermayenin belirleyicilerini farklı yıllar boyunca karşılaştırarak, çıkan sonuçların politika yapıcılar ve profesyoneller için Türk halkının algılanan yaşamlarını iyileştirme konusunda öngörü sağlamayı amaçlamaktadır.

**Anahtar Kelimeler:** Yaşam Doyumu, Mutluluk, Sosyal Sermaye, Öznel Refah, Türkiye.

**THE IMPACT OF SOCIAL CAPITAL ON SUBJECTIVE WELL-BEING  
IN TURKEY**

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## ABBREVIATIONS

<b>EVS</b>	European Value Survey
<b>p.</b>	Page No
<b>TLSS</b>	Turkish Life Satisfaction Survey
<b>TSI</b>	Turkish Statistical Institute
<b>WVS</b>	World Value Survey





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## INTRODUCTION

As a consequence of the globalization, the pursuit of happiness is an important personal goal that attracts the attention of many social scientists in various disciplines around the world. Nowadays the characteristics of happy people is defined as follows *'young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married, with high self-esteem, high job morale, modest aspirations, of either sex and of a wide range of intelligence'* (Leung et al., 2011). Recent research suggests that social capital can also be a vital factor for life satisfaction and happiness (Diener and Oishi 2005; Helliwell, 2006).

Economic activities failed to meet the necessities of changing industrial societies. After the industrial revolution, while necessity of physical capital rose, this necessity shifted from physical capital to human capital with knowledge society. One of the reasons for this transformation is that human capital is more efficient and less costly than physical capital. Economists' interest in social capital has increased rapidly over the years. As pointed out by Islam et al. (2002), the search for 'keywords de in all journals shows that quotations for 'social capital' have increased rapidly in the last decade, doubling every year since the late 1990s.

In the last decade, the concept of social capital has been used in almost every field of social science. And it has been used to explain a wide range of events, from political participation to institutional performance, from health to corruption, and from the effectiveness of public services to the economic success of countries (Akçomak and Weel, 2009).

However, despite extensive research on social capital, it is still difficult to define social capital. Because of chronic lack of appropriate data, there is neither a universal measurement method nor a single key indicator widely accepted by the literature. From a historical perspective, it can be said that social capital is not a concept but a surrogate used to unite and facilitate cross-fertilization of different ideas between disciplines (Durlauf and Fafchamps, 2004). One of the primary benefits of the idea of social capital is that it allows scientists, policy makers and practitioners from different disciplines to benefit from unprecedented levels of cooperation and dialogue (Brown and Ashman, 1996).

In general, economic data such as income, consumption, and inflation rate etc. are used in the studies to measure growth. As a result of changing and developing needs with globalization, different approaches have been created about the data used to measure the economy. One of them is measuring happiness. Throughout history happiness has been perceived as one of the most important and valuable goals. In the last two decades, scientific studies have been conducted to show what grows a good and happy life (Diener et al., 1999: 277).

Happiness has a wide category of phenomena that includes emotional responses of people, domain satisfaction, and global life satisfaction judgments. In general manner, well-being level is assumed to be one of the indicators of an individual having a good life. The level of happiness is also related to one's view of the quality of life. For this reason, there is a relationship between how happy one feels and the level of life satisfaction. We can conclude that high happiness level is a product of high life satisfaction, also related with economic growth.

For this research, our goal is to investigate the answer to the question that *“what is the impact of social capital on subjective well-being in Turkey for several years?”* While analyzing the two main indicators of the subjective well-being, like happiness and life satisfaction, we also discussed social capital in form of trust and confidence in institutions mentioned in the contemporary literature. We evaluate the impact of two forms of trust as social capital on subjective well-being determined as happiness, and life satisfaction. When we are investigating the relationship between happiness, life satisfaction and trust, we will focus on gender differences. We will use data derived from the World Value Survey (WVS) for Turkey. The data from the surveys cover five waves: 1989-1993, 1994-1998, 1999-2004, 2005-2009 and 2010-2014. The impact of two forms of trust on subjective well-being will be evaluated by ordered logit model taking into account demographic characteristics; such as “age”, “education level”, “income”, “marital status” and “employment status”.

This thesis is organized as follows. Chapter 1 presents theoretical background about social capital, its measurement and its effects on economic growth. We will consider the issue of social capital in a broad way. Chapter 2 presents the issues of subjective well-being as happiness and life satisfaction and explains the impact of them on perceived well-being. Then we describe the data we use in the evaluation of

subjective well-being and graphically describe the relationship between happiness and life satisfaction and two different forms of social capital by controlling gender for Turkish respondents in 1990, 1996, 2001, 2007 and 2011. Chapter 3 presents the modeling approach and discusses estimation results for the model. Finally, conclusions and policy implications are drawn in the last part.



## **CHAPTER ONE**

### **THEORETICAL BACKGROUND**

#### **1.1. WHAT IS “SOCIAL CAPITAL”?**

Since social capital means different things to different people, it is difficult to define social capital. There are many definitions of social capital, because the idea relates to numerous disciplines such as sociology, political science and economics, among others (Knowles, 2005, Putnam, 1995b; Coleman, 1990). However, most definitions of social capital are a common set of collaborative norms with the concept of trust, networks and group memberships (Knowles, 2005: 3).

Social capital is built up by coupling together two key words as “social” that belongs to social science and “capital” that belongs to political economy discipline. So, it can be said that description of social capital should be made under the light of terminologies which belong to these disciplines to get a true description. Social capital is sociologically defined as norms, rules, networks, communications and mutual trust that affect the economic development of societies. Economically, the meaning of social capital is also the basis for a new approach. The importance of participating citizenship and reciprocal respect are stressed by social capital to build up knowledge economy and learning society efficiently.

Social capital is a multidimensional and complex concept. There is no single definition, but most of the existing definitions include terms such as networks, trust, social cooperation and norms (Neira et al., 2010: 20). In an organizational structure, while physical capital is implied with physical tools and structural formations; human capital is associated with relationships among individuals. If social capital refers to the links between individual-social networks, norms of reciprocity and reliability stem from these social networks (Print and Coleman, 2003: 125). There is a lot of debate about whether social capital is a form of capital in the same way as a physical, natural and human capital. There are several lines of research that show social capital is a “capital”. Robinson (1999), Adler and Kwon (2000) and Akçomak and Weel (2009) describe several characteristics of social capital similar to those of any other capital. Like other forms of capital social capital, is a resource that

may be the object of investment with the expectation of future profits and benefits (Akçomak, 2011; Coleman, 1988; Sabatini, 2005). Social capital can be complementary to other sources or used instead of them. Agents can use social capital to build up good relationships among themselves to address the shortcomings in financial or human capital (Neira, 2010: 20; Neira et al., 2008: 116). Since social capital cannot develop on its own, it should be considered as complementary to other forms of capital. Social capital, such as physical and human capital, should be serviced or maintained to prevent its effectiveness from fading. Likewise, it is difficult to assess the depreciation rate for social capital as consistent with human capital, because repeated use tends to strengthen capital stocks rather than reverse, and neglecting to use them certainly leads to depreciation (Neira, 2010: 20; Neira et al., 2008: 116). There are some important features of social capital: (1) it is a productive stock derived from the values and resources of society; (2) it resides in the relation rather than in the actor which makes it intangible and fragile; (3) it has public good character; (4) It is defined as a lack of investment because it cannot be easily converted to economic capital (Akçomak and Weel, 2009).

We can make comparisons between physical, human and social capital based on different characteristics. Firstly, embodiment can be showed as a difference between these capitals. Physical capital is embodied in tools, machinery etc. Human capital is embodied in human actors (i.e., entrepreneurs, skilled workers etc.). Social capital is shaped not in the actors but in the relationship between the actors. The second feature is how capital is created; physical capital is created through changes in materials (education, training and work experience, etc.) and a range of skills, other forms of tools that facilitate production through changes in materials and generate value added from production (Arrow, 1999; Akçomak, 2011). It includes value added to workers with economic value and knowledge and skills that enable the worker to earn more than socially optimal or subsistence.

The way in which social capital is obtained is determined through relationships between individuals, firms and other corporate organizations (such as enterprises). It could arise as a by-product and could be inherited in or result from deliberate investment (Akçomak and Weel, 2009). Next feature is about tangibility. Although physical capital is tangible, both human and social capital is less tangible.

All of them are productive. Another feature for comparison is their functionality. Physical capital is defined by its functions. The function of machines depends on usage and application (Akçomak and Weel, 2009; Coleman, 1990). For example, machines used for glass production may not be used for the production of weapons. Human capital is also defined by its functions. For example, the function of a university education creates better job opportunities application (Akçomak and Weel, 2009; Coleman, 1990). However, engineering education does not help you to become an accountant.

Social capital is also defined by its functions. Certain aspects of social structure can be seen as a resource for actors that can be used to achieve specific goals (Coleman, 1988; Coleman, 1990; Bourdieu,1986). A type of social capital useful for X may not be useful for Y (Coleman, 1988). However, unlike other forms of capital, some forms of social capital may be detrimental to other activities (Coleman, 1988). For example, being strong in a group can prevent individuals from making connections outside the group (Coleman, 1988). About being durable, we can say that both physical and human capital is durable but social capital is fragile. Both physical and human capital depreciate, if they are used and left idle and through time. However, social capital is fragile. Because it remains in the connection between the delegates, it becomes obsolete if a party terminates the relationship. Thus, it can be lost without will, which makes it less reliable compared to physical and human capital. It is appreciated by use but is valued by not being used. Another feature is transferability. Physical capital is easily transferred to ownership of others. The simplest way for this transfer process is to provide it as labor, while human capital is transferred to gain knowledge and skills. We can only transfer social capital to a limited extent. For example, a shop owner may change, but the new owner can take advantage of the reputation (brand) uncovered by the previous owner (Coleman, 1988). The other difference among forms of capital is related with estimated worth. Physical capital can be precisely predicted and easily transformed into economic capital (money). It is characterized by sacrifice for future benefits and investment with calculation (Coleman, 1988). Human capital could be predicted, but as it is uncertain and could not be easily transformed into economic capital. Investment in human capital is done by calculating future benefits. Unlike both physical and human



capital, it is not possible to give full value to social capital and it is not easy to transform social capital into money. For example, investing in social relations can increase social capital. However, unlike other forms of capital, it also depends on other actors who benefit from it and the strength of their connection. No material sacrifice is required to invest in social capital, especially at the macro level, as it is often given or emerged as a by-product (Helliwell and Putnam, 1995). Therefore, this investment in the form of capital is cannot be calculated. However, investment in social capital at the individual level can also be seen as the act of calculation. The last feature of different forms of capital is economic good character. Although both physical and human capital is private goods, social capital has public good character. Those who invest in physical capital can enjoy benefits (property rights). However, people who invest in time and resources as human capital can obtain better status, higher wages, and so on. However, social capital also has a rival. It can be seen as a natural monopoly to benefit from an established relationship. But it cannot be considered as a public interest. For example, people who bring values and apply social norms (or help to create them) in a community may not be the main beneficiaries of the resources resulting from those values (Coleman, 1990).

Social capital is composed of various aspects of social life that encourage people to act together. In this context, social capital is an important product of individual learning in both intragroup and inter-group relationships, as it creates synergy and provides trust, consistency and solidarity (Durlauf, 2002). Woolcock (1999) defines the social capital in the form of clubs, associations and societies, in communities where people meet and co-operate. However he also discusses how some of these relations are isolated from the rest of the society, whereby the risk arises that negative social capital will appear (Durlauf, 2002).

Social capital refers to institutions, relationships and norms that shape the quality and quantity of social interactions of a society (Coleman, 1988). Increasing evidence suggests that social cohesion is critical to the economic enrichment of communities and the sustainability of development. Social capital is not only the sum of institutions supporting a society, but also the adhesive that holds them together (Coleman, 1988). According to this aspect, social capital is the sum of the knowledge produced by relationships between real and potential resources. Besides, social

capital can be regarded as an element to improve association among two or more individuals. It constitutes not only any set of norms, but social capital should lead to cooperation in groups, and therefore it relates to traditional virtues such as honesty, fulfillment of commitments, reliable performance of tasks and reciprocity (Helliwell and Putnam, 1995). Under this aspect, social capital emphasizes social liveliness, sociologically.

Social capital has two features:

1. It is a resource linked to group membership and social networks. It is a quality produced by the integrity of the relationships between the players, rather than just a common “quality” of the group (Helliwell and Putnam, 1995). Membership in groups can be used as an effort to improve the social position of the actors in different fields, including social relations arising from membership. Voluntary associations, trade unions, political parties, secret societies (freemasons) are modern examples of embodiments of social capital (Helliwell and Putnam, 1995). Resources produced by the voluntary associations and shared by its partners can be understood as social capital. The establishment of an association can create a sense of solidarity among a mass and institutionalize the accumulated capital (Helliwell and Putnam, 1995). The economic, social and symbolic “profit” after membership of the association provides a concrete basis for the growth of solidarity. From this perspective, the creation of a voluntary association can also be seen as collective and individual investment strategy aiming to establish networks of permanent relations that will enable social capital accumulation (Helliwell and Putnam, 1995).
2. It is based on mutual cognition and recognition. In order to be effective social capital, “objective” differences between groups or classes need to be transformed into symbolic differences and into classifications that enable symbolic recognition and discrimination (Bourdieu, 1986). Symbolic capital, when perceived by an agent, is nothing more than capital, with categories of perception resulting from the internalization of the structure of its distribution (Bourdieu,

1986). The effectiveness of symbolic capital depends on actual communication practices. It only exists and grows in cross-target mirroring and is recognizable only there (Bourdieu, 1986).

Social capital is not in the individual actor or in the social structure but in the gap between them. At the core of the concept, we see people as creative (Bourdieu, 1986). Thus, social capital is the result of a dynamic process of interaction; it is intentionally or otherwise created, increased or destroyed and requires continued investment. Therefore, social capital should be considered as a form of capital that affects economic development, such as other types of capital (Neira et al., 2008; Neira, 2010).

We can summarize themes that are defined in the social capital literature as follows:

1. Participation is the concept of intense interconnected networks between actor types (Bourdieu, 1986).
2. Reciprocity is the concept of short-term self-sacrifice and long-term self-interest - a player can act for personal benefit for the benefit of others (Arrow, 1999).
3. Trust causes the willingness to take risks in the social context, based on the sense of trust that others will act as expected and in mutually supportive ways (at least that others do not intend to harm) (Neira, 2010).
4. Institutional arrangements (norms, taboos, etc.) provide a form of informal social control that avoids the necessity for official institutions (Durlauf, 2002).
5. Joint stock of goods (networks, reciprocity, trust and institutional structure) combines to form a strong community with common ownership over social capital (Coleman, 1990).
6. The pro-activity mentioned in the previous themes is a collective sense of value that requires active and willing participation of citizens within a participating community (Tamaschke, 2003: 8).

Table 1 summarizes the key definitions of social capital as summarized by Durlauf and Fafchamps (2003)<sup>1</sup>.

**Table 1: Commonly Used Definitions of Social Capital**

<b>Author(s)</b>	<b>Definition</b>
<b>Coleman (1988)</b>	“...obligations and expectations, information channels, and social norms.”
<b>Coleman (1990)</b>	“...social organization constitutes social capital, facilitating the achievement of goals that could not be achieved in its absence or could be achieved only at a higher cost.”
<b>Putnam et al. (1993)</b>	“features of social organization, such as trust, norms, and networks that can improve the efficiency of society.”
<b>Fukuyama (1997)</b>	“...the existence of a certain set of informal rules or norms shared among members of a group that permits cooperation among them. The sharing of values and norms does not in itself produce social capital, because the norms may be the wrong ones... The norms that produce social capital... must substantively include virtues like truth telling, the meeting of obligations and reciprocity.”
<b>Knack and Keefer (1997)</b>	“Trust, cooperative norms, and associations within groups.”
<b>Narayan and Pritchett (1999)</b>	“...the quantity and quality of associational life and the related social norms.”
<b>Putnam (2000)</b>	“...connections among individuals – social networks and norms of reciprocity and trustworthiness that arise from them.”
<b>Ostrom (2000)</b>	“...the shared knowledge, understandings, norms, rules and expectations about patterns of interactions those groups of individuals bring to a recurrent activity.”
<b>Woolcock (2001)</b>	“...the norms and networks that facilitate collective action...it is important that any definition of social capital

<sup>1</sup> For further studies, see; Coleman, 1988; Narayan and Pritchett, 1999; Bourdieu, 1986; Knack and Keefer, 1997; Durlauf and Fafchamps, 2004

	focus on its sources rather than consequences... This approach eliminates an entity such as “trust” from the definition of social capital.”
<b>Lin (2001)</b>	“...resources embedded in social networks and accessed and used by actors for actions. Thus the concept has two important components: (1) it represents resources embedded in social relations rather than individuals, and (2) access and use of such resources reside with the actors.”
<b>Bowles and Gintis (2002)</b>	“...trust, concern for one’s associates, a willingness to live by the norms of one’s community and to punish those who do not.”
<b>Knack (2002)</b>	“I use the term government social capital to refer to institutions that influence people’s ability to cooperate for mutual benefit. The most commonly analyzed of these institutions ... include the enforceability of contracts, the rule of law, and the extent of civil liberties permitted by the state.”  “Civil social capital encompasses common values, norms, informal networks, and associational memberships that affect the ability of individuals to work together to achieve common goals.”
<b>Sobel (2002)</b>	“Social capital describes circumstances in which individuals can use membership in groups and networks to secure benefits.”
<b>Durlauf and Fafchamps (2004)</b>	“(1) social capital generates positive externalities for members of a group; (2) these externalities are achieved through shared trust, norms and values and their consequent effects on expectations and behavior; (3) shared trust, norms and values arise from informal forms of organizations based on social networks and associations.”
<b>World Bank (2005)</b>	“[T]he norms and networks that enable collective action.”

Source: Knowles (2005)

## 1.2. IMPROVEMENTS IN SOCIAL CAPITAL AS A CONCEPT

The concept of social capital has a long intellectual history in the social sciences, even though it has been popular only in the last decade because of the famous work of Bourdieu (1980; 1986), Coleman (1988; 1990) and Putnam (1993; 1995a) (Fabio, 2005: 159). The term is used today dates back to about 90 years when Lydia Hanifan (1916) called the concept of social capital to explain the importance of community participation in improving school performance in West Virginia (Coleman, 1988; Bourdieu 1986). She explored whether there is a relationship between support of society on education institutions with school performance or not. According to her, a qualified communication between families, which creates a community and keeps the communication reciprocal, makes the school and society rich in terms of social capital. Hence, this situation increases life pleasure by making society more liveable (Coleman, 1988; Bourdieu 1986).

In 1980s, Bourdieu (1980) is the first researcher that uses the concept of social capital in today's meaning. Coleman (1988) is the researcher that improved the concept. He defined the concept of social capital in modern sense as follows:

*“Social capital is defined by its function. It is not just a single entity, but a variety of different entities that are composed of two common elements: they are all aspects of social structures, facilitating certain aspects of social structures, and facilitating certain actions. Actors-person or legal actors-within the structure. Like other forms of capital, social capital is productive, making it possible to reach conclusive conclusions that it is not possible in its absence. Like physical capital and human capital, social capital is not entirely conducive, but it may be specific to some activities. A particular form of social capital that is valuable in facilitating certain actions may be useless or even harmful to others. Unlike other forms of capital, social capital is based on the structure of relationships between actors and actors (Coleman, 1988).”*

In his article, Coleman investigated the reasons of young people leaving school. While he was evaluating these reasons, he discriminated among three components that are related with family past: financial capital, human capital, and

social capital. Financial capital shows financial possibility that is required for the education of child. Human capital shows the influence of family's education level. However social capital shows the close relationship between the family as well as the continuity of the community to which the house and school belong and the soundness of the bonds. According to Coleman's empirical research, social capital has an effect on probability of leaving school besides financial and human capital. Social integration has a positive effect on reducing the rate of leaving school.

In second half of 1990s, social capital has reached to its today's popularity with *Making Democracy Work: Civic Traditions in Modern Italy* published in 1993, *Bowling Alone: America's Declining Social Capital* published in Journal of Democracy in 1995, and *Bowling Alone: The Collapse and Revival of American Community* published in 2000 which are all written by Robert Putnam (Erdoğan, 2006). Putnam tried to answer only one question in these publications: "What kind of relationship exists between economic and political performance of a country and civic activities of individuals".

Opening statement of Putnam's book, called *Making Democracy Work*, is "Why some democratic government are successful and others not?" In 1976-77, Putnam queried the differences between the performances of Italian local government following the Local Government Reform in his book. He expressed that the reason of the differences ensued from efficient "civic community" in North Italy cities. The differences stem not only from the economic prosperity of Northern Italy, but also from the differences in the performance of local governments. As regards to Putnam, citizens' civil activities created an environment, where mutual cooperation, vital social networks, equal political relations and political participation are widespread, in the region where a well working local and economic welfare existed.

Putnam named this environment as "social capital", inspired by Coleman. According to Putnam, the main components of social capital are trust, norms and obligations based on reciprocity and on social networks including citizens. Though the studies of Putnam have made social capital popular and importance of social capital has been highlighted today. In addition to Putnam, Bourdieu brought an alternative approach to social capital. Social capital is perceived by Putnam as a concept at social level and described by Norris (2000: 2) as "*I don't have social*

*capital but society does*". Thus, social capital is a concept that should be discussed at individual level. According to Bourdieu, societies consist of large number of fields and any different forms of capital determine a situation of various actors in this field. Actors having capital impress their chances of being successful in the game, directly (Putnam, 1995b). There are three different kinds of capital determined by Bourdieu; economic capital, cultural capital and social capital. Economic capital shows economic potential of individuals. Cultural capital can be showed in three different forms, individual living in the environment, individual having cultural values, and last individual obtaining embodied cultural institutions in the documents like diploma, certificate. Lastly, social capital is the effective connections that are mobilized by individuals. Individuals engage in different groups and if required, they could mobilize networks over these groups. In this respect, the quality of relations as a form of social capital could strengthen the lifetime status of individuals. The concept of social capital is defined by Bourdieu as a measurable factor at individual level. It is of great importance to establish the relation directly with social capital both as social wealth and as individual wealth. So, we can interpret Bourdieu's social capital concept as a main factor that motivates individuals to take place in social networks.

Up to this point, there are three important names contributing to the literature on social capital; Bourdieu, Coleman and Putnam. They contribute to conceptualization of this concept and their contributions are taken as references (Schuller and Bamford, 2000: 7). Fukuyama is also one of the leading names in this regard since he has made contribution to definition of social capital by his *trust-index studies*. Fukuyama has placed "trust" at the center of social capital concept to explain differences in economic performance between societies. Fukuyama (2005) thought over the level of people trusting each other in a society and analyzed the effect of this element on community development in his study called *Trust: The Social Virtues and the Creation of Prosperity*.

According to him, social capital is a value that proceeds with being dominated by a sense of trust either in a society or in some part of society (Fukuyama, 2005: 42). Fukuyama, who categorized society as society having either high confidence level or low confidence level, made the important inference on the



relationship between this confidence level and welfare level. According to him, if people, who have to work together in an organization, trust each other because of common moral rules that they act in accordance with, the cost of execution for this job will be lower. High confidence level will lead to very diverse and comprehensive social relationship types (Print and Coleman, 2003: 126).

Norris (2003) also brought a different approach to explain the concept of social capital. Although structural dimension consists of networks where individuals are in active way, cultural dimension consists of social norms that affect both behavior of individuals and their relations. In his opinion, social relation networks, norms and values governing these networks serve as a source of respecting social relations by creating reciprocal responsibilities among individuals. In this context, social capital winning functionality rises with combination of individuals who have different origin but common norms and values that give strength to nongovernmental organizations based on voluntary acting in a society.

Social capital is defined by Woolcock and Narayan (2000) as social norms and networks that allow individuals to move around the same purpose together (Print and Coleman, 2003: 126). They discussed three types of social capital; binding, bridging, and linking by mentioning the view that relationships of individuals in family, working environment, neighborhood and local institutions. Either formal or informal groups feed social networks and intensify accumulation of the social capital in this way. Binding social capital expresses social groups that are defined as dense and strong ties among people like family, affinity, neighborhood and close friendship. Bridging social capital expresses secondary degree ties that are defined as more distant and weaker ties among people like distant friendships, social partnerships and business friendships. Linking social capital has a function that forms relationship between status and groups that are different from far regions.

Lin (1999) has described social capital as the interaction between structure and action. Lin has summarized the idea of social capital in three objects: 1) fusing resources and social structure, 2) making these resources accessible through individuals, 3) using social resources and mobilizing people to actions for specific purposes.

According to Pye (1999), the accumulation of social capital is an important stage for a healthy structure to appear in society. Also, it is an important transformation dynamics. Pye (1999) discusses that courtesy in society is an important indicator in terms of social capital. In individual communication, courtesy requires general social norms and these norms are elements that ensure social order. Pye stressed the impact of social capital on democracy (Print and Coleman, 2003: 126). According to Pye, social capital is a potential source that provides source to create organizational value, to share vision and to provide confidence in corporation. He explained social capital as a potential power that creates important values with all of these values.

After the publication of *Making Democracy Work* by Putnam et al. (1993), a series of studies investigated different aspects of the concept of social capital and its relationship with economic growth, which is usually represented by per capita income. Putnam et al. (1993) found a positive relationship between economic development and social capital, but suffered suspicious methods to measure social capital (Print and Coleman, 2003: 126).

Heliwell and Putnam (1995) show that social capital measured by the civilian index (newspaper reading, associations, referendum participation, preferential voting) positively affects the economic performance in Italian regions in the long term. Putnam and Heliwell's study has been repeatedly tested and presented in most of the following literature on social capital. Knack and Keefer (1997) uses data from the World Value Survey (WVS) to conduct cross-country tests of Putnam's hypotheses. The study of Knack and Keefer (1997) includes approximately 1000 respondents in each of several dozen countries that are nationally representative. Trust values for each country are calculated as the percentage of respondents who agree that '*most people can be trusted*' rather than the alternative that '*you can't be too careful in dealing with people*'. Knack and Keefer (1997) find that trust and civic have a strong impact on economic performance in a sample of 29 market economies (Norway, Finland, Sweden, Denmark, Canada, Australia, Netherland, Iceland, Japan, Ireland, Korea (South), Spain, India, Austria, South Africa, Belgium, Germany, Argentina, Italy, France, Nigeria, Chile, Portugal, Mexico, Turkey and Brazil). They suggested that declining level of social capital in the United States has negative

impact on economic growth. Another study, Balamoune-Lutz (2011), shows the relationship between social capital, as a form that is embodied in institutions, and economic growth. They found a positive relationship between social capital and growth (Print and Coleman, 2003: 126).

Helliwell (1996) finds a negative relationship between economic growth and social capital. In his study, Helliwell shows that trust and group membership are negatively and significantly associated with increased productivity for a sample of OECD members (South Korea, Taiwan, Singapore, Hong Kong, Japan, China, Thailand, Indonesia, India, Pakistan, Malaysia, Burma, Nepal, Sri Lanka, Bangladesh, Philippine, Myanmar). This sample omits the poor and middle-income nations for which trust has the largest effects.

### **1.3. MEASUREMENT OF SOCIAL CAPITAL**

The measurement of social capital in communal and institutional level is important. Its improvability under various circumstances in time even makes it more important to be measured accurately.

One of the basic characteristics of economic values is its measurability. In this respect, measurement of social capital is not the same as other economic variables (Arrow, 1999). Other economic factors can be measured using monetary values (Durlauf and Fafchamps, 2004). But measurement of social capital is not possible with monetary values. Still, there is some evidence that social capital is present in a community. These are low divorce rates, crime rates, low bureaucratic procedures, government stability and high rate of economic promises that have been accomplished. In the last decade, empirical research has proposed a variety of methods to measure social capital and test its ability to produce relevant social, economic and political outcomes (Akçomak, 2011).

According to Fukuyama (2001), one of the weaknesses of social capital is that there is not a consensus about how to measure it. However, he stated that two approaches based on overall consensus are accepted more. The first is the quantitative studies that focus on number of groups and qualities of group memberships. The second is the studies that determine the trust and civic

responsibilities by some scales. Fukuyama suggests institutional capital measurements as a third alternative (Fukuyama, 2001: 12).

Another reason for measurement problem of social capital is that many indicators related to social capital are not verbal and remains associational (OECD, 2001). This is why studies aiming at social capital are limited. Moreover, this is a serious problem in measuring and classifying social capital. Field (2006) suggested potential indicators each pointing out different dimensions that are across-the-board (Arrow, 1990). Studies based on across-the-board indicators might also encounter missing and sloppy.

Arrow (1990) indicates that one correct method to measure social capital is not possible and listed why this is the case:

1. Social capital is a multidimensional concept composed of different fields.
2. Social capital naturally changes qualitatively over time.
3. Studies aimed at measuring social capital are radical, comprehensive, and have not been implemented for a long time.

In spite of some obstacles, factors supporting social integration and cooperation are predominantly emphasized in the studies that measure the social capital at communal level. Especially some countries such as England, Australia, Canada and New Zealand have been studying for the determination of their social capital using their own statistics foundations. In addition, international foundations such as OECD and World Bank have determined criteria for social capital levels on national base.

Some of studies on the measurement of social capital use the determination of membership and participation in formal and informal foundations and networks. Especially in studies dealing with the determination of the level of social capital in less developed countries, participation in festivals, sports organizations and traditional activities that provide social connections are beneficial in terms of capital accumulation. In this context, social capital index, developed by Narayan and Pritchett (1999) focuses on measuring density and quality of formal and informal groups and networks. The dimensions of this research consist of four areas containing functionality of social groups, their contribution to society, participation

in decision-making process and heterogeneity of social memberships. Similarly, in some developing countries, some scales are developed to determine level of social capital (Narayan and Pritchett, 1999). These researches evaluate social capital with regards to household and community. These researches determine the level of density of communal foundations, membership to civil society organizations and level of active participation in these organizations. They are based on some inputs considered as the indicators of social capital that bring about social capital index developed by Putnam (2000). Putnam (2000) measured the level of social capital using the inputs below:

1. The rate of member of civil society organizations to population
2. The rate of membership to civil society organizations
3. The rate of participation to general elections
4. The level of participation to related meetings at schools
5. The rate of voluntary organizations to population
6. The time individuals allocate to voluntary activities
7. The closeness and sincerity in social relationships (frequency of visitation to friends, neighbors...)
8. The level of trust among individuals in society

Narayan and Pritchett (1999), on the other hand, considered eight dimensions of social capital important to community and tried to measure social capital by developing a scale:

1. Participation to local groups
2. Sensation of trust and security in community
3. Level of neighbor relations
4. Family and friend relations
5. Tolerance to differences
6. The perception of pleasure from life
7. Work contacts

## **8. Active participation in the context of sociability**

In the literature, social capital is measured both at macro and micro levels. In macro level, studies measure social capital basically by making some conclusions based on ingredients of capital and some of its indicators. Studies based on indicators of social capital focus on quality of trust and relationship among individuals, crime rates, level of participation in civil society and voluntariness activities, levels of completion of economic and social agreements, level and quality of economic and social partnerships and co-operations (Narayan and Pritchett, 1999). Macro level studies analyze the impact of social capital on economic variables between countries and often use data from the World Values Survey, the European Value Survey and the European Social Survey. The most common proxy used in the literature for social capital is trust. Micro level studies analyze the impact of social capital on households or villages in each country. The data used in these studies are based on household surveys and social capital is proxied by group membership. Economic growth rate is commonly used as a dependent variable in macro-level studies; whereas income or expenditure level of household is the main dependent variable in micro-level studies. The effect of social capital on education and health, has also been analyzed, but the effect of social capital on other variables is not the same (Knowles, 2005:14). In micro level studies, on the other hand, the subject is evaluated according to dimensions of social capital and some conclusions are made in this context. Accordingly, trust, norms, social networks, level of active participation, level of communication and interaction are taken as fundamentals and their available levels in community and social organizations are determined. We will begin by reviewing the macro level studies.

### **1.3.1. Macro Level Studies**

Social capital is generally defined as the degree of trust in a society, collaborative norms and networks. TRUST, CIVIC and GROUPS are used in different measures for social capital (Knack and Keefer, 1997). These three measures of social capital have been quantified using World Value Survey conducted since 1981.

TRUST indicator is obtained from the question “*Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people*”. The percentage of the individuals that respond to the above question as “*most people can be trusted*” is the proxy for TRUST. CIVIC is an index ranging from 5 to 50 and participants were asked to give a score between 1 and 10 to decide whether certain behaviors were justified. These behaviors are: (1) claiming to be a state benefit you are not entitled to, (2) avoiding public transport fees, (3) deceiving tax if you have the chance, (4) buying something you know has been stolen, and (5) receiving bribes during their duties (Knack and Keefer, 1997). Accordingly, 50 points show the highest possible CIVIC level and 5 points show the lowest possible CIVIC level.

As for TRUST, the answers given to the question of trust are not related to how much people trust others in economic experiments (Glaeser et al., 2000). This is often a reason for economists who are skeptical about surveys, because these surveys measure what people say, not what they execute. However, Glaeser et al. (2000) find evidence that there is a positive relationship between TRUST and how reliable the person is. Another study on trust is Neira (2009) that uses 13 EU countries with available data from 1980 to 1999, proposing an economic growth in the analysis. She found a significant positive effect of human and social capital in the growth of European economies over the past two decades.

Another study by Ruten and Gelissen (2010) contributes to the literature in two ways. First, they develop a comprehensive theoretical model on the relationship between social values and economic development. Secondly, they are testing their models for European regions. They do not work at the regional level as a whole, but work at the level of subgroups in the population. Their main conclusion is that social values and social networks are important in explaining regional economic development.

Knack and Keefer (1997) argue that the use of CIVIC as a proxy for social capital involves the power of norms in a society. However, this variable can be evaluated as a better measure of civil virtue. For example, a low CIVIC value is given to a country where everyone thinks it is right to deceive their taxes. However, if everyone had deceived their taxes, this could represent a civilian norm (Knack and

Keefer, 1997) . GROUPS that is used as another proxy to measure social capital in terms of association activity also has some weaknesses. A potential drawback of this variable is that it only considers the number of associations to which a person belongs, rather than calculating the power of membership. To be specific, active membership of a volunteer fire brigade is sometimes considered to be the same as church attendees.

Knack and Keefer (1997) provide examples of the countries in which TRUST, CIVIC and GROUPS present data. Their sample includes South Korea, India, South Africa, Argentina, Nigeria, Chile, Portugal, Mexico, Turkey and Brazil as developing countries. Developing countries, especially in the case of TRUST, do not receive particularly good values in terms of social capital measures, which only receive a score above the average in South Korea. In Brazil, only 6.7 percent of the sample thinks that others can be trusted in general; whereas this value is only 10 percent in Turkey. Since the publication of Knack and Keefer (1997), three more waves of survey have been compiled. The latest wave includes data for 33 European countries as well as several former communist countries.

Knack and Keefer (1997) found that TRUST and CIVIC were positively related to both growth and the average investment rate for countries. The GROUPS variable has no statistically significant effect on investment and growth. Knack and Keefer (1997) also divided the GROUPS variable into groups that they thought would constitute social capital (Putnam Groups) and that could persuade rent seeking (Olson Groups). They find a negative relationship between Putnam Groups and investment, which was contrary to their expectations. Zak and Knack (2001) revise the empirical studies of Knack and Keefer (1997) with a wider country example. However, Zak and Knack (2001) do not include CIVIC or GROUPS, but only TRUST as a social capital proxy. Their results are largely consistent with Knack and Keefer (1997). In addition, Zak and Knack (2001) found that the value of TRUST is significant in countries with efficient official institutions as measured by the protection of property rights, the applicability of contracts and the indices of corruption (Knowles, 2005).

La Porta et al. (1997) examines the impact of TRUST on a range of agents for economic development, using cross-country data. TRUST is positively related to the



quality of infrastructure, the adequacy of the high school completion and education system, and the economic growth rate. TRUST is also significantly and negatively related to infant mortality and inflation rate. In addition, La Porta et al. (1997) examines the impact of the proportion of Catholic, Eastern Orthodox, or Muslim populations on economic development and finds that this variable is positively related to infant mortality and inversely related to inflation. The quality and adequacy of the infrastructure were associated with high school completion.

The trust measure of Knack and Keefer (1997) is based on a question about generalized trust. The World Values Survey also raises questions about people's trust in their families and other citizens. Whiteley (2000) brings together the answers to all three questions in a social capital index using the principal components analysis. His results indicate a significant and positive relationship between this index and per capita income among countries.

Knack and Keefer (1997) and Zak and Knack (2001) are the only two studies that attempt to address the problem of concurrency in the literature. Simultaneity is the most common problem in cross-country studies, since it may be possible for people to trust more or have more groups in countries where the economy is growing faster (Knack and Keefer, 1997; Zak and Knack, 2001). In order to control these bias valid instruments that are associated with social capital but have no relationship to the dependent variable should be found. Knack and Keefer (1997) set the percentage of the population of a country belonging to the largest ethno-linguistic group and the number of law students as a proportion of all higher education students as TRUST. Instead of using the instruments proposed by Knack and Keefer (1997) for TRUST, Zak and Knack (2001) use instruments of the Catholic, Muslim or Eastern Orthodox population, claiming that these religions have a negative impact on trust.

The common proxy of social capital included in cross-country regressions summarizing the results from the cross-country literature is TRUST, which positively correlates with economic growth and investment (Knack and Keefer, 1997; Zak and Knack, 2001). Besides, La Porta et al. (1997) also found that TRUST is associated with education and health measures. The only analysis on the problem of concurrency is performed by Knack and Keefer (1997) and Zak and Knack (2001), but it is doubtful whether the instruments they use are valid.

### 1.3.2. Micro Level Studies

In the studies using household data, there is a significant relationship between social capital and economic outputs. These studies are more abundant than cross-country studies. Micro level studies typically estimate an equation similar to:

$$E_i = \alpha + \beta_1 S_i + \beta_2 X_i + \beta_3 Z_i + u_i \quad (1)$$

$E$  is a measure of economic outcomes (typically expenditure),  $S$  is a measure of social capital,  $X$  is a vector of household characteristics,  $Z$  is a vector of community characteristics and  $u$  is the error term (Knowles, 2005: 20). Household characteristics include the school of the household, whether the head of the household is a man or a woman, whether the household's religion, etc. Community characteristics can describe variables such as the quality of village leadership (Knowles, 2005: 20).

*Expenditures* are generally used as dependent variables in micro level studies. However, it is possible for  $E$  to measure other development outcomes, such as education or health levels. Krishna (2001) uses a development index as a dependent variable that includes information on the productivity of widely owned land, poverty reduction, job creation and the quality of health, education and water supply services. Moreover, the group membership is another measure that is used commonly in the literature (Narayan and Pritchett, 1999; Grootaert, 1999; Krishna, 2001 and Maluccio et al., 2000).

Narayan and Pritchett (1999) form a social capital index. Their index represents an increasing function of the number of groups to which households associate and the degree to which group membership is heterogeneous in terms of income and kinship (Narayan and Pritchett, 1999). They construct the social capital index as an increasing function of group heterogeneity and find that social capital indices correlate positively with household expenditures. They conclude that social capital is more important than education in explaining differences in household expenditures.

Maluccio et al. (2000), similar to Narayan and Pritchett's (1999) index, constitutes a social capital index based on group membership. Their index consists of three variables: the number of groups a person belongs to, the reported average performance of the groups, and the frequency of individuals attending meetings. Together with this household group membership index, they also form a community group membership index that measures the amount and characteristics of groups at the community level. The authors using data for 1993 and 1998 found that the group membership is correlated with household spending in 1998, but not in 1993 when they controlled fixed effects. Unlike Narayan and Pritchett (1999), they find social capital is not as important as education in explaining household spending.

Grootaert (1999) includes six group memberships as diverse explanatory variables in the same prediction equation. Six dimensions; (1) the intensity of membership, (2) a heterogeneity index, (3) regularity of participation in the meeting, (4) an index of whether decisions are made by common consent, (5) a measure of whether members are required to pay membership fees. The group was formed by the community or by some external institutions. Grootaert (1999) found that an additional group membership was associated with 1.5% higher household spending. Return to membership is higher for heterogeneous groups (especially when this difference is based on income) and for democratic decision-making groups. Grootaert (1999) also found that incomes for social capital were higher for low-income than high-income households.

#### **1.4. THE PROBLEM OF MEASURING SOCIAL CAPITAL**

Despite the huge amount of research on social capital, its definition remains unclear. The conceptual necessity, the combination of multiple definitions, and the chronic lack of appropriate data have hampered theoretical and empirical research on social capital. Heckmann (2000) shows that causal relationships are difficult to establish:

*'Some of the disagreements that arise in the interpretation of a particular set of data are specific to the economic field due to the conditional nature of causal*

*information. Information in any body is often too weak to eliminate competing causal explanations of the same phenomenon. There is no mechanical algorithm to produce a series of “hypothetical” facts or causal estimates based on these facts’.* (Heckman, 2000: 91).

However, according to Durlauf (2002),

*‘The empirical literature of social capital seems particularly disturbed by the ambiguous concept definitions, insufficiently measured data, lack of appropriate interchangeability and lack of information to make identification requests reasonable’* (Durlauf, 2002: 22).

Durlauf reviews three famous empirical studies that belong to Furstenberg and Hughes (1995), Narayan and Pritchett (1999) and, Knack and Keefer (1997). According to Durlauf (2002), these studies remain unclear and need to be demonstrated and do not help in understanding the socioeconomic outcomes of social capital. Durlauf’s critique is a step forward in the position of some leading economists who discuss the ability of econometric analysis to investigate the predicted consequences of social capital. His critique also questions the opportunity to see the concept as a useful analytical tool for the economy. In his critique to Fukuyama, Solow (1995) writes: *‘If social capital will be more than the word, something more than relevance or importance is required. ... The stock of social capital must be measurable in some way, even if it is wrong’* (Sabatini, 2006: 8). It is possible to observe that empirical research proposes a variety of methods to measure social capital and test its ability to produce relevant social, economic and political outcomes over the last decade. However, the empirics of social capital continue to have difficulty in persuading the macro results, and some definite problems appear to have caused this failure in the literature (Sabatini, 2006: 8). In particular, we can identify six main shortcomings:

1. Despite studies on social capital, its definition remains essentially unclear. Much of the literature refers to social capital in all aspects of the social structure that facilitates certain actions of actors

within the structure possible (Coleman, 1988: 98). The productive aspects of the social structure may change with different environmental situations and the needs of representatives. Therefore it is almost impossible to provide a single and universal definition of social capital using empirical research (Sabatini, 2006: 9).

2. Social capital seems to be widely accepted as a very broad concept. It allows each author to focus on a particular aspect of the concept. Empirical studies each time address different dimensions of social capital, so they take special measures derived from different data sources. Moreover, researchers cannot calculate the measurement error that they hope to find in the survey questions used to evaluate social capital (Paxton, 1999).
3. In the theoretical literature, social capital measures with “indirect” indicators that do not represent the basic constituents such as social networks, trust and social norms. These indicators - for example, crime rates are very popular in empirical research, but their use has created a serious confusion as to what social capital is, what is different from its consequences, and what is the relationship between social capitals (Sabatini, 2006: 9). As a sign of this, a research based on the outcome of social capital will surely find the social capital that will be related to this outcome. When a result is observed, social capital emerges as a tautology (Portes, 1998; Durlauf, 1999). It is possible to relate the label of social capital to all aspects of the social fabric of the economy, which provides a favorable environment for economy (Portes, 1998; Durlauf, 1999). Such a definition, however, raises the question of logic. If social capital can make all intermediaries cooperate or work better, any empirical analysis will see that social capital leads to co-operation among intermediaries and increases the efficiency of markets. This approach can make the social capital literature capable of increasing the explanatory

power of economic studies addressing socio-cultural factors of growth (Sabatini, 2006: 10).

4. The current national research on the economic consequences of social capital is mainly based on confidence measures from the World Values Survey (WVS). The WVS's way of measuring generalized confidence is the famous question "*Are you careful in dealing with people?*" developed by Rosenberg (1956) in his research *Misanthropy and Political Ideology*. The possible answers to this question are: "*Most people can be trusted*", or "*I can't be too careful*" or "*I don't know*". The confidence indicator stemming from this question is often given by the percentage of respondents who says most people can be trusted after deleting "*don't know*" answers. Confidence measured by questionnaires shows individuals' perceptions in their social environment and is related to a certain position occupied within the social structure. However, the collection of such data constitutes a measure that can be called "macro" or "social" trust; this loosens the connection with the social and historical conditions of trust and social capital (Sabatini, 2006: 10).
5. The studies which do not take into account the multidimensional, dynamic and contextual nature of social capital are more focused on the social networks of social capital rather than social trust. The error of these studies is to accept a single type of network as the representative of social capital as a whole and analyze it with a single measure. Even though it is seen as a simple descriptive analysis of the data which is only one aspect of the concept, it does not prevent us to show that social networks are a multidimensional phenomenon. For example, Sabatini (2005) emphasizes different types of social networks that tend to overlap each other in Italian regions. These four indicators contain information as well as the original variables that define social

networks and can be used as new raw data in experimental analyzes.

6. Most studies focus on voluntary organizations to measure social capital. In areas where networks cannot develop, there are fewer opportunities to learn. There are, however, several reasons for doubting the effectiveness of social capital measures. First, although individuals who participate in groups and interact with others show differences in attitude and behavior on a regular basis compared to participants, people have the possibility to choose themselves in association groups, depending on their generalized level of trust and reciprocity. Second, group experiences may be more pronounced in their impact. According to some authors, such groups were found to be relatively homogeneous in character. The literature has not provided a micro theory so far that explains the mechanism of trust transfer. Moreover, generalized trust has never evolved clearly (Sabatini, 2006: 12). Thus, each finding is related to a causal link.

## **1.5. ECONOMIC EFFECTS OF SOCIAL CAPITAL**

Studies that analyze the effect of social capital on economic growth of a country are increasingly continuing. In most of these studies, researchers' view that economic growth is affected by traditional factors such as capital, labor and natural resources disappears. Therefore, the impact of social capital on economic growth has been discussed extensively in the literature (Kızılkaya, 2017).

### **1.5.1. Growth and Social Capital**

Research on economic development is largely based on the Neoclassical Growth Model (NGM) paradigm. Solow's periodic work (1956, 1957) drew attention

to the fundamental roles that labor, physical capital and technology play in the function of macroeconomic production (Dearman and Grier, 2009: 211).

Mankiw et al. (1992) increased Solow's original model with human capital. However, Caselli et al. (1996) rejected both versions of the model. In addition, Grier's (2007) empirical analysis of growth theories reveals a paradox of input convergence and income disparity.

Several additional factors are identified by empirical literature as exogenous and endogenous. Several of these factors include human capital, financial development, international capital flows, quality of institutions, social infrastructure, government spending and inflation (Islam, 1995). Each of these studies provides important information about the nature and structure of economic growth, while social capital is another hidden tool affecting the development process. Social capital establishes relationships between members in a society and is associated with the amount of externality produced by social capital. Higher positive externalities that provide higher levels of social capital can have a positive impact on macroeconomic outcomes inflation (Islam, 1995). The effect of social capital on macroeconomic outcomes has been extensively discussed in the literature. Olson (1982) focuses on groups that reduce the stock of social capital, such as political coalitions.

A study by Coleman (1988) shows that social capital in family and community relations are very important for the accumulation of human capital. Putnam et al. (1993) found that regions of Northern Italy grew faster than Southern Italy after the Second World War due to the existence of social capital. The results of Helliwell and Putnam (1995) show that regions of Italy with a high level of social capital are growing faster than those with high social incomes (Islam, 1995).

At the theoretical level the complexity of the relationship between social capital and growth is more pronounced (Sabatini, 2005: 178). Specifically, it is possible to argue that economic growth itself may be a factor of destruction of social capital. This means that if people spend a lot of time working and consuming, there is little time left for social participation. Routledge and von Amsberg (2003) show that higher labor turnover increases heterogeneity and changes the social structure affecting social capital. The authors focus on social capital as an aspect of cooperative behavior. Social capital may worsen in large communities where it is



generally difficult to continue to cooperate. On the contrary, reducing the mobility of workers increases welfare with the proportion of tradesmen who are cooperative. In other words, *'the benefit of increased social capital can outweigh the cost of loss productivity'* (Routledge and Von Amsberg, 2003: 172). This result is also supported by Alesina and La Ferrara (2000). They show that participation in groups requiring direct contact between members is low in heterogeneous communities. They also argue that such a decline destroys social security, thus preventing growth. However, it is widely seen in the political science literature that social participation can support the diffusion of trust (Routledge and Von Amsberg, 2003: 172) and this indirectly supports economic growth.

### **1.5.2. Innovation and Social Capital**

According to the OECD definition of innovation, all innovation activities are scientific, technological, organizational, financial and commercial steps leading or aiming to implement innovations. Some of the innovation activities are themselves innovative, while others are not essential for the implementation of innovations. Innovation is the introduction of something new or significantly improved; these are products (goods or services) or processes (Routledge and Amsberg, 2003). Innovation involves the adoption, adaptation and expansion of innovation in the firm and markets. Recognizing that innovation is the main source of competitive advantage, both Schumpeter and Marx realized that innovation can be devastating, in addition to creative social and economic impacts on existing inventions (Routledge and Amsberg, 2003).

Inputs and outputs can be defined as two aspects of innovation (Rutten and Gelissen, 2010). Inputs include both the government and the business sector, for example R&D research and development (Rutten and Gelissen, 2010). Human capital is measured as an important factor in innovative activity, which is the individual's knowledge, skills and abilities that can be developed through formal education and lifelong learning. So, social capital can be considered as an innovative activity factor.

The impact of social capital on innovative activities in a country can be defined as the creation of an innovative environment (Akçomak and Weel, 2009). If firms isolate themselves from their environment, there is no innovative activity. Firms need to interact with their environment. Innovative activity depends on the spillover of information (Akçomak and Weel, 2009). More specialization and more complex technologies require more collaboration. Networks consist of ties between individuals and firms. These links exchange information and reduce the cost of searching for information. They also speed information exchange and lower the cost of information search. Kaasa (2007) states that access to know-how can be gained with the help of know-how, that is, information about who knows what (Akçomak and Weel, 2009). In general, networks can help prevent duplication of expensive research. Although some authors claim that weak links are more important in disseminating information (Aguilera, 2016), other authors state that strong ties could also serve as bridges (Knowles, 2005). For this reason, distinguishing between strong and weak ties in a society-level has been left out when analyzing the impact of networks on innovative activity.

Networks have a synergistic effect by combining complementary ideas, skills and finance (Akçomak and Weel, 2009). The combination of different creative ideas can lead to extraordinary combinations and radical discoveries (Knowles, 2005). In addition to this, information exchange over networks cannot work without trust (Neira, 2010), and repeated collaboration through networks creates trust (Neira, 2010).

We discuss trust as one of the dimensions of social capital, we can argue that trust can influence innovative activity through the following mechanisms:

1. The higher the overall trust, the lower the monitoring costs of possible misuse or non-compliance by partners, and the lower the need for written contracts (Knack and Keefer, 1997). Therefore, higher trust allows firms to spend more time and finances on other purposes; innovative activity is one of them.
2. The higher the general trust in society, the less risk averse is its members, including investors (Akçomak and Bas ter Weel, 2006).

Innovative activity is closely related to risk, and venture capital markets are critical to innovation. It is widely known that high trust encourages investors to invest more in R&D projects (Akçomak and Weel, 2006).

3. In case of higher general trust, when workers are selected for a permanent job, their human capital is more important and their acquaintances are less important (Knack and Keefer, 1997). By this way, the labor force employed in R&D probably has higher skills and education that are needed for innovative activity.
4. The corporate trust of companies is based on the corporate trust of individuals. It is important that individuals rely on institutions such as the government and the legal system. Motivation for innovation is higher in terms of reliable legal system and effective patent registration. Innovators believe that the results of their activities and R&D expenditures are preserved and that they will be able to reciprocate their activities (Knack and Keefer, 1997).

Previous literature regarding the impacts of social capital on innovative activity has paid little attention to norms, although norms are strongly related to trust. The norms of individuals play an important role in forming the norms that affect the behavior of firms (Knack and Keefer, 1997). The norm that prefers society's interests to self-interest, supports the diffusion of information. The higher the norms of civic behavior, the higher the country's level of innovation will be (Knack and Keefer, 1997).

The contribution of social capital to innovation is achieved by reducing transaction costs between firms and other actors, in particular search and information costs, bargaining and decision costs, policing and enforcement costs (Akçomak and Weel, 2006). Landry et al. (2000) assumes that innovation is not a discrete event but a complex process. When firms were initially required to make an innovation decision, they provided strong evidence that various forms of social capital influenced this decision, particularly social capital, which took the form of participation assets and relational assets (Akçomak and Weel, 2006). Kaasa (2009)

shows that the different dimensions of social capital influence the innovative activities (Akçomak and Weel, 2006). Among the dimensions of social capital, Kaasa (2009) finds that citizen participation has the strongest and positive impact on innovative activities measured by patent applications (Akçomak and Weel, 2006).

## **1.6. SUBJECTIVE WELL-BEING**

### **1.6.1. What is Subjective Well-Being?**

Subjective well-being evaluates life in a multidimensional way. The way includes cognitive participation life satisfaction judgments and emotional evaluations of emotions and moods. The subjective well-being contains all four components (Conceicao and Bandura, 2009). They are i) pleasant emotions ii) unpleasant emotions iii) global life judgment (life evaluation) and iv) domain satisfaction (marriage, health, leisure etc.) (Conceicao and Bandura, 2009).

The attention paid to the subject of subjective well-being (SWB) reflects the social tendencies of recognizing the value of the individual, the importance of subjective views in the assessment of life, and the greater social tendency of accepting that welfare necessarily includes positive elements that surpass economic prosperity (Diener et al., 1999).

Diener et al. (1999) argued that the various components of the subjective well-being represent different structures that should be understood separately. For this reason, the subjective well-being can be regarded as “a general scientific interest rather than a single specific structure”. The definitions of subjective well-being typically do not include objective conditions, such as material or health, as they focus specifically on the subjective aspects of welfare, but may affect the ratings of the subjective well-being (Diener, 1984; Diener et al., 1999).

### **1.6.2. Measurement of Subjective Well-Being**

Studies on the measurement of subjective well-being use two major indicators of happiness and life satisfaction. It is generally assumed that they emphasize

different aspects of subjective well-being. While focusing on emotional factors for instance happiness, pleasing and emotional life experiences, life satisfaction provides information about conceptual thoughts such as reflected judgment about life control and self-actualization (Puntscher et al., 2014; Diener, 1984).

Economists used the terms “happiness” and “life satisfaction” as concepts that could measure subjective prosperity, which could replace each other (Easterlin 2004). Happiness can be measured by the data obtained from the survey asking people how happy they feel themselves to be. There are many surveys that evaluate happiness today. For example, the General Social Survey has the question “*Taken all together, how would you say things are these days: would you say that you are very happy, pretty happy or not too happy?*” and the World Value Survey has another question “*Taking all things together, would you say you are: Very happy, Rather happy, Not very happy and Not at all happy.*”. The Eurobarometer Survey on the other hand, asks “*On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?* and “*Taking all things together, how would you say things are these days - would you say you’re very happy, fairly happy, or not too happy these days?*” (Conceicao and Bandura, 2009).

### **1.6.3. Determinants of Subjective Well-Being**

One of the studies on subjective well-being in the form of happiness is Borooah (2006). The paper dwells upon the determinants of happiness reviewing the country-specific studies. By so doing, Borooah (2006) makes two contributions for new research about the subject. First, mean happiness score is presented as indicators of happiness and compared with their values of unset indicators. If countries have the lowest mean happiness scores, unhappiness set is to take into account the evident inequality in personal distributions between happiness. Second, the paper uses about 113,000 respondents as data and includes 80 countries, it shows that people generally wants to be happy, faith in a destiny, a decent standard of living, a job, a good family and social life, a good neighborhood, and especially, good health, it does not matter wherever they live (Borooah, 2006).

Economic effects of ‘happiness’ have been studied extensively in the literature. In many studies how happy people are, and what determines their degree of happiness are determined. The main question is whether happiness and economic growth are positively related or not. It can be answered by considering the relationship between happiness and actual GDP per capita, where the average values of these two variables are used for various countries at a given time

There are several papers in the literature studying the relationship between happiness and income. In this respect, Easterlin (2013) explores the question that whether economic growth causes to increased happiness. In order to evaluate the answer, Easterlin (2013) uses a survey of 17 developed countries, 9 developing countries, 11 transition countries, 17 Latin American countries, and China. A reverse outcome is obtained between the short-term (positive) relation of happiness and GDP with the long-term relation. Results show that there is no relationship between income and happiness in the long run, but there is a positive relationship between variables in the short term. On the contrary, there is no evidence in time series, economic growth rises “up to some point” in low income countries, such as China (Easterlin, 2013).

In another study, Easterlin et al. (2010) determines that a higher rate of economic growth does not increase happiness. The data set involves 17 Latin American countries and 17 developed countries, 11 countries transitioning from socialism to capitalism, and 9 developing countries, 4 of which are also in the Latin American dataset. The paper studies rich and poor, ex-communist and capitalist, countries without preconceptions as to the likely outcome. Easterlin et al. (2010) shows that happiness and income has positive relationship in the short term—here, usually a minimum period of 10 year— but not in the long term. The happiness–income paradox goes on from poor countries to rich countries: but even if income increases, happiness does not rise in time within a country (Easterlin et al., 2010).

Happiness is used to evaluate general life satisfaction with the responding question “*All things considered, how satisfied are you with your life as a whole these days*”. The answers are categorized in a 1-10 scale. In cross sectional research, happiness and income has positive relationship, but in time series research they have a negative relationship. Easterlin and Angelescu (2009) take into account three

groups of countries including 17 developed, 9 developing and 11 transition countries. When all three sets of countries are analyzed together, they found that there is no significant relationship between happiness and growth of GDP per capita at the long term rate. Time series studies, which report a positive relationship, complicate a short-term positive relationship between happiness and income growth resulting from fluctuations in macroeconomic conditions but there is zero relationship in the long-term (Easterlin and Angelescu, 2009).

Studies about the relationship between happiness and income so far indicate that they are positively related in short term but are not related in long term. Proof of this finding is tested in the separately analyzed or pooled time series data for developed countries, transition countries and less developed countries (Easterlin, 2013). Skeptics who demand that the long-term series having a tendency of positive relationship are misleading the short-term relationship for the long-term relationship, or are mistaken by a statistical work. Some analysts argue that there is a positive relationship between happiness and economic growth in less developed countries at some point, where the association tends to be zero. The most stunning contradiction is China, where there has been no development in life satisfaction, in spite of a fourfold multiplication in twenty years of GDP per capita from a low primary level (Easterlin, 2013). If the aim of society is to improve people's sense of well-being, it does not lead to economic growth on its own. Easterlin (2013) suggests that full employment, a generous and extensive social safety net enhances happiness. He states that such policies are debatably feasible not only in high-income countries, but also in countries that make up the majority of the less developed world population (Easterlin, 2013).

Leigh and Wolfers (2006) use two major international surveys for Australia and investigate the relationship between Human Development Index and subjective well-being. They found a positive relationship between human development index and both indicators of subjective well-being. Moreover, their results indicate that Australians are a little happier (or more satisfied) than the country's grading in the human development index (or per capita national income) (Leigh and Wolfers, 2006).

Bruni and Stanca (2005) examined the effects of watching television on income expectations and the relationship between income and individual happiness. The paper discussed that watching television decreases the impact of income on life satisfaction by generating more material aspirations, increasing both adaptation and positional effects (Bruni and Stanca, 2005). Using an individual level data obtained from the World Value Survey including 56,000 people; the paper has provided evidence that the impact of revenue on both life and financial satisfaction is much smaller for heavy television viewers than occasional TV viewers. The role of television in life of people is perceived as an increase in the life standard, it reduces the impact of high income on individual happiness (Bruni and Stanca, 2005).

Another aspect about happiness level is the role of genetic factors in subjective well-being. Inglehart and Klingeman (2000) shows that genetic factors do not play an important role in finding evidence but genetic factors are only part of the story. Happiness levels vary cross-culturally. Although genes can play a vital role, beliefs and as well values are important. His results also show a close relation between levels of well-being and a society's political institutions. If a society's level of well-being decreases sharply, the political system would collapse. Otherwise, a rise in the levels of well-being contributes to the survival and growing of democratic institutions (Inglehart and Klingeman, 2000: 165-183).

Edling et al. (2014) has predicted a series of models to test the relationship between religion and happiness. The report focuses on the weak relationship between religion and happiness and the strong relationship between social networks and happiness (Edling et al., 2014). In the paper, happiness is used as the dependent variable and measured with the statement obtained from "*I am happy*" to which respondents reply on five level Likert-scale. Religion, immigrant, friendship and parents' education are also used as independent variables. The results are strong in a range of specifications, including alternative binary coding of the dependent variable (Edling et al., 2014).

The empirical results approve that many cultural values identified with reference to social values and beliefs have an important impact on individuals' measurement of life satisfaction. Lange (2010) found that the importance of work, family, religion and interpersonal trust plays a particularly significant role. On the



other hand, the findings of the study also show that the effect is diminished by the economic development of the countries where individuals live (Lange, 2010).

Puntscher et al. (2014) studies economic and social characteristics as determinants of happiness and life satisfaction in European regions. They found that the two indicators of subjective well-being are much correlated at the regional level. In transition countries, regions show low levels of happiness and life satisfaction, while regions in Scandinavian countries perform best in both categories. Their findings suggest that the main driving force for these regional features is the reconciliation of the region with social capital. Once controlled for social networks as well as levels of trust, the region dummies are not statistically significant for both Scandinavian and transition countries. While average income has no impact, social and institutional trust show a significant positive impact on subject well-being. In addition, they found that different types of social capital in the form of family and friendship ties affect happiness positively (but not life satisfaction). Whole, their results emphasize the importance of social interaction and integration for subjective well-being in a very developed economy such as the European Union (Puntscher et al., 2014).

#### **1.6.4. Studies on Subjective Well-Being in Turkey**

As far as we know, empirical evidence explaining the determinants of subjective well-being in terms of life satisfaction and happiness is rather limited in Turkey. The first study to propose an alternative well-being approach to this Turkish population about subjective measures is Eren and Aşıcı (2018). They analyze the subjective well-being levels for Turkey by using data obtained from Turkish Statistical Institute's Life Satisfaction Surveys between 2004 and 2014. The main finding of the study, is that the GDP indicator is unable to follow the evolution of people's perceived well-being in Turkey. If we list the results obtained from the article: between 2004 and 2014, there was a gradual increase in the well-being of Turkish citizens. However, in order for this increase to occur, GDP per capita (in fixed TL) must increase by more than 30%.

One of the earliest studies that examine the factors determining subjective well-being in Turkey is Selim (2008). He identified the factors that determine individual happiness and life satisfaction among Turkish people by using a representative survey for socio cultural and political change, namely World Values Survey (WVS). He found that income and health status have a positive effect on well-being; whereas unemployment and age are negatively related with individual happiness and life satisfaction. In contrast to expectations, secondary education has a positive effect on life satisfaction among women. Comparing happiness relations and life satisfaction through different years, Selim (2008) reveals that the happiness and life satisfaction for Turkish people are significantly affected by their health, income and employment status.

Ekici and Koydemir (2013) examine the relationship between different aspects of social capital and happiness in Turkey. They used happiness and life satisfaction as dependent variables. Respondent's confidence in different institutions, political involvement, views on social norms, degree of concern for others and different aspects of religiosity are used as measures for social capital (Ekici and Koydemir, 2013). The paper uses a sample from 1999 to 2008 and compares the impact of various social capital indicators on happiness. The study discusses the crisis in 2001 as a landmark. This crisis causes many households' income to decrease, unemployment to rise and salary payments were interrupted. The second important point after the crisis was the rise in Islamic ideology, piety and conservatism after the election of the ruling political party in 2002. Third, increasing urbanization and globalization, modernization, easy reach to technology, the increase of individualism among educated parts of society and the emergence of civil society that began after the 1980s and continued in the 2000s, were observed. In addition to this, a huge economic imbalance happened between the state and social classes. These changes and transformations have effects on lifestyles of people and quality of life. For these reasons, it would be important to examine the 10-year period and see the change of variables. They found that satisfaction from government and democracy is not associated with happiness in Turkey (Ekici and Koydemir, 2013).

Köksal and Şahin (2015) tried to measure the relationship between income and happiness by comparing the income levels of individuals. Their study indicates a

decrease in the happiness of individuals whose current situation is better than the past. This situation can be interpreted as the expectations of individuals increase in the same direction with the developing situation and increasing expectations decrease the happiness levels. In addition, individuals may not have achieved their goals even though their present situation has improved. Such a situation may also result in the lack of happiness of individuals developing. They concluded that comparing the present situation with the past had no role in the relationship between income and happiness. In this sense, the effect of income on happiness may differ from individual to individual. Furthermore, considering the factors other than income affecting individual happiness, the fact that thoughts about a happy life has a relative feature should not be ignored. However, increases above a certain level of income may not be considered as a factor that increases happiness. Finally, the rapid adaptation of individuals to existing economic conditions may not lead to a change in overall levels of happiness (Köksal and Şahin, 2015).

Another study, Caner (2015) used two samples obtained from the Turkish Life Satisfaction Survey and the World Value Survey in years 2007 and 2011. He concludes that determinants of happiness depend on time period, the set of control variables and the using sample. Married people are more happy than single, divorced, separated or widow; females are more happy than male; unemployed are less happy than others; individuals are less happy than singles in both surveys and both years (Caner, 2015).

Another study about life satisfaction and happiness of Turkish people is Sönmez and Sönmez (2018). They used human capital and religiosity as variables. The data is obtained from WVS. Life satisfaction and happiness are correlated with human capital and religiosity while investigating life satisfaction and happiness. Their results show that there is no significant difference between life satisfaction happiness in Turkey like other researches. They found that older people are more happy and satisfied than younger people in their lives. When we look at the conclusion reached by gender discrimination that women are happier and more satisfied in their lives than men. The same result is true for married people in the article. But people with having high number of children, higher income level and highly skilled are unhappy and unsatisfied in their lives. Cognitive workers with

higher educational level who are employed are more satisfied in their life's but cognitive workers with higher income level are unsatisfied. Manual workers who are unmarried, having more children and highly skilled are not satisfied in their lives. Results about religiosity factor shows that it has a strong and positive effect on the life satisfaction and happiness for Turkish people. Effect of religiosity for manual workers is positive, but it has the opposite effect for cognitive workers.

One of the studies using a different survey is Eren and Aşıcı (2016). They used Turkish Statistical Institute's Life Satisfaction Surveys to analyze the determinants of happiness in Turkey between 2004 and 2013. Their findings are as follows: The hope factor, which is not included in previous studies, is found to be the strongest predictor of neglected happiness and job satisfaction is as important as working, married people who are satisfied from their marriage are happier than unmarried people, education that increases income makes people happy, happiness and income have positive relationship and analysis done at the city level, city happiness reveals that the minor differences that may require specific policies to people for every city in Turkey.

It is seen that happiness depends on real life conditions such as income, health, marital status in studies related to the effect of happiness in the literature on economy (Köksal et al., 2017). On the contrary, happiness is approached from a psychological perspective, happiness comes together with actual life domains of subjective satisfaction and happiness to predict happiness. Köksal et al. (2017) measure that the relationship between different life domains with very little known about the happiness in developing countries for Turkey. They used observations obtained from Turkish Life Satisfaction Survey between 2008 and 2012 years. The data discovered the variables related to satisfaction. Income, marriage and health-related satisfaction are the top three determinants of happiness for all years.

Table 2 shows that a summary of similar studies measuring happiness and life satisfaction as a research topic for Turkey in several years.

**Table 2:** Studies on Subjective Well-being in Turkey

Authors	Dependent Variables	Definition of using samples in the studies			Interaction between variables	
		Independent Variables	Years	Source	Positive effect	Negative effect
<b>SELİM (2008)</b>	Happiness Life Satisfaction	age, subjective health, gender, level of education, marital status, number of children, employment status, income, importance of family, leisure time, friends, politics, work, religion, proud of nationality, trust to people, political orientation	1990 1996 2001	WVS	education, female being married, health status, income, political orientation, importance of family, leisure time, friends, religion, trust to people	age, male, number of children, unemployed importance of politics lower, middle, upper level education
<b>EKİCİ &amp; KOYDEMİR (2013)</b>	Happiness Life Satisfaction	generalized trust, political involvement, social norms, confidence, volunteer, religiosity, mosque attendance, usefulness of mosque, belief in religious ideas, government satisfaction, democracy satisfaction, employed, gender, age, marital status, number of children, education level, income level	1999 2008	EVS	government satisfaction trust, volunteer, confidence, income, married, religious, democracy satisfaction	age, gender, concern for immigrants, Europeans, and mankind
<b>KÖKSAL et al. (2017)</b>	Happiness	income, age, gender, monthly household income, comparison income, welfare level	2012	TSI	monthly household income, welfare level	comparison income
<b>CANER (2015)</b>	Happiness Life Satisfaction	gender, age, marital status, number of children, education level, type of employment, social class, income step, health, important religion, family, friends, leisure, politics, work, political orientation, proud of nationality	2007 2011	TLSS WVS	income, married never married, health status leisure time, political orientation trust to others	age, male divorced more education unemployed number of children
<b>SÖNMEZ &amp; SÖNMEZ (2018)</b>	Happiness Life Satisfaction	age, gender, married, number of children, employed, education, income, skill, household income, world citizen, social class, God important in life, religion services, fate or control, cognitive task	2007	WVS	female, gender, married, employed house hold income world citizen, god important in life, religion services, fate or control	male gender number of children higher skill level higher education level higher income level

## CHAPTER TWO

### THE IMPACT OF SOCIAL CAPITAL ON SUBJECTIVE WELL-BEING: A DESCRIPTIVE ANALYSIS

#### 2.1. WORLD VALUE SURVEY

The International Social Research Program (ISSP) paper is one of two international social studies aimed at covering a huge part of the world's population. It is analyzed by Blanchflower and Oswald (2004). The other one is the World Value Research (WVS). World Values Survey Integrated Data File covers 115,000 respondents in 78 countries. 83 percent of the world's population is involved in these countries. The WVS contains separate questions on life satisfaction and happiness. The World Values Survey ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)) is a global social scientist network in Stockholm, Sweden. WVS studies the changing values and their impact on social and political life. An international team of scientists led it together with the WVS association and the secretariat ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)). In 1981, the survey started. It aims to use the most difficult, high-quality research projects in each country. The WVS consists of nationally-represented surveys, which cover approximately 90 percent of the world's population and are conducted in almost 100 countries using a common survey.

The WVS is the largest non-commercial, international, time-based series of human beliefs and values to date, including interviews with almost 400,000 participants. Indeed WVS is the only academic study in the most important cultural regions of the world, covering all global variations from very poor to very rich countries.

Aim of the WVS helps scientists and policy makers find out changes in beliefs, values and motivations of people around the world. This data has used by thousands of political scientists, sociologists, social psychologists, anthropologists and economists to analyze issues, for example economic development, democratization, religion, gender equality, social capital and subjective well-being ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)). Likewise government officials, journalists and

students, and the World Bank groups extensively used these data to analyze the links between cultural factors and economic development.

## 2.2. SUBJECTIVE WELL-BEING USING WORLD VALUE SURVEYS

Life satisfaction and happiness has been a subject of survey applied in national samples since 1973. Questions used in questionnaires about these subjects are “*How satisfied are you with your life as a whole? Would you say that you are very satisfied, reasonably satisfied, not very satisfied, or not at all satisfied with your life as a whole?*”. The Values Survey asked each respondent about his/her ‘state of happiness’. The results are graded on a 4-point scale: if he or she answers very happy, 4 (very happy), 3 (quite happy), 2 (not very happy), 1 (not at all happy). The average score of all responses was the mean score computed over its respondents for each country in the survey.

Happiness values are obtained from the sum of answer (very happy and quite happy) in return for the question: “*Taking all things together, would you say you are*”. Life satisfaction is measured on a scale from 1 to 10 (a higher value means that a person is currently more satisfied with his/her life).in return for the question “*All things considered, how satisfied are you with your life as a whole these days?*”. While analyzing the two main indicators of the subjective well-being, happiness and life satisfaction, we also discussed financial satisfaction, which is a third indicator. Financial satisfaction is a subjective measure that is evaluated on a scale from 1 to 10 (a higher value means that a person is currently more satisfied with his/her financial situation) in return for the question “*How satisfied are you with the financial situation of your household?*”.

Trust values are obtained from answer (*most people can be trusted*) in return for the question “*would you say that most people can be trusted or that you need to be very careful in dealing with people?*”. We have analyzed the data in terms of gender as “*male*” and “*female*”.

The data from the surveys cover five consecutive waves: 1989-1993, 1994-1998, 1999-2004, 2005-2009 and 2010-2014. We have selected 32 countries (including Turkey) that were also included in the 1989-1993 wave and the last wave,

namely 2010-2014. We categorized these countries according to the beginning years and ending years based on life satisfaction, happiness, financial satisfaction, subjective health and trust of 32 countries. As shown in the following tables, some countries have a starting survey wave of 1989-1993 (that is the first survey wave that Turkey is included) and the rest of them are 1994-1998 due to their survey participation. However, the last survey wave is the same in all, namely 2010-2014. Countries belong to different type of categories namely underdeveloped, developing and developed in line with World Bank classification.

Table 3 shows the change in mean of life satisfaction for selected countries during the determined start and end periods. The countries with the highest increase in life satisfaction are as follows; Ukraine: 1.95, Romania: 1.78, Azerbaijan: 1.35, Estonia: 1.20, Mexico: 1.10, Armenia: 0.91, Slovenia: 0.89, and Turkey: 0.87. The importance of the change in the same period can be defined as life satisfaction in different countries is affected equally by changing living conditions in the world. Except for Mexico, the relative geographical locations of other countries are close each other. These countries are in the category of developing countries as an economy. As a result of the features we have mentioned, it is possible that the indicators will be in the same direction for these countries. If we list the countries with the highest decrease in life satisfaction's mean, these are China: 0.43, Spain: 0.37, Nigeria: 0.32. Life satisfaction of the people living in these countries has decreased as indicated. And it should be noted that the start and end periods of these three countries are the same. What is interesting is that these countries are not close to each other in terms of geographical location or economic conditions. It is ironic that a country with a developing economy like China, a rapidly growing population and a geographically large country, has the largest decrease in life satisfaction ratio. In other words, since life satisfaction is a subjective situation, no matter how the economic and other vital indicators are the same, common judgment cannot be reached. An interesting result is that the decrease in life satisfaction's mean of a country like Nigeria whose development level is under other countries is lower than the decrease in China's ratio. We can conclude that the level of development affects life satisfaction relatively.



**Table 3:** Life Satisfaction in Turkey and Selected Countries (mean)

<b>Life Satisfaction</b>					
<b>1989-1993</b>		<b>1994-1998</b>		<b>2010-2014</b>	
Argentina	7.25			Argentina	7.48
		<i>Armenia</i>	4.32	<i>Armenia</i>	5.23
		Australia	7.58	Australia	7.38
		<i>Azerbaijan</i>	5.39	<i>Azerbaijan</i>	6.74
Belarus	5.52			Belarus	5.80
Brazil	7.37			Brazil	7.85
Chile	7.55			Chile	7.27
<i>China</i>	7.29			<i>China</i>	6.86
		Colombia	8.31	Colombia	8.39
		<i>Estonia</i>	5.00	<i>Estonia</i>	6.20
		Germany	6.93	Germany	7.39
India	6.70			India	6.52
Japan	6.53			Japan	6.91
<i>Mexico</i>	7.41			<i>Mexico</i>	8.51
		New Zealand	7.70	New Zealand	7.65
<i>Nigeria</i>	6.59			<i>Nigeria</i>	6.26
		Peru	6.36	Peru	7.13
		Philippines	6.84	Philippines	7.34
Poland	6.64			Poland	7.06
		<i>Romania</i>	4.86	<i>Romania</i>	6.64
Russia	5.37			Russia	6.13
		Slovenia	6.46	Slovenia	7.35
South Africa	6.72			South Africa	6.68
South Korea	6.69			South Korea	6.61
<i>Spain</i>	7.15			<i>Spain</i>	6.77
		Sweden	7.77	Sweden	7.62
		Taiwan	6.56	Taiwan	6.89
<i>Turkey</i>	6.41			<i>Turkey</i>	7.27
		<i>Ukraine</i>	3.95	<i>Ukraine</i>	5.90
		United States	7.67	United States	7.44
		Uruguay	7.13	Uruguay	7.60

**Source:** World Value Survey

**Note:** Life satisfaction was calculated by taking into account the answers of “dissatisfied, 2, 3, 4, 5, 6, 7, 8, 9, satisfied” to the question of “All things considered, how satisfied are you with your life as a whole in these days?”. Countries with significant change in life satisfaction value are written in italic type.

**Table 4:** Happiness in Turkey and Selected Countries (mean)

<b>Happiness</b>			
	<b>1989-1993</b>	<b>1994-1998</b>	<b>2010-2014</b>
Argentina	1.93		Argentina 1.82
		<i>Armenia</i> 2.45	<i>Armenia</i> 1.92
		<i>Australia</i> 1.63	<i>Australia</i> 1.70
		Azerbaijan 2.12	Azerbaijan 1.94
Belarus	2.54		Belarus 2.24
Brazil	2.05		Brazil 1.74
Chile	1.97		Chile 1.92
China	2.05		China 1.99
		Colombia 1.70	Colombia 1.52
		Estonia 2.36	Estonia 2.13
		Germany 2.03	Germany 1.91
India	2.07		India 1.76
Japan	2.00		Japan 1.78
<i>Mexico</i>	<i>2.05</i>		<i>Mexico</i> 1.39
		New Zealand 1.72	New Zealand 1.71
<i>Nigeria</i>	<i>2.02</i>		<i>Nigeria</i> 1.65
		Pakistan 1.97	Pakistan 1.75
		Peru 2.09	Peru 1.89
		Philippines 1.68	Philippines 1.61
Poland	2.03		Poland 1.84
		Romania 2.45	Romania 2.23
<i>Russia</i>	<i>2.46</i>		<i>Russia</i> 2.10
		Slovenia 2.15	Slovenia 1.98
South Africa	2.03		South Africa 1.87
South Korea	2.14		South Korea 1.96
<i>Spain</i>	<i>1.96</i>		<i>Spain</i> 2.00
		Sweden 1.66	Sweden 1.63
		<i>Taiwan</i> 1.81	<i>Taiwan</i> 1.83
Turkey	1.92		Turkey 1.82
		<i>Ukraine</i> 2.55	<i>Ukraine</i> 2.17
		<i>United States</i> 1.60	<i>United States</i> 1.74
		Uruguay 2.00	Uruguay 1.81

**Source:** World Value Survey

**Note:** Happiness was calculated by taking into account the answers of “4 (very happy), 3 (quite happy), 2 (not very happy), 1 (not at all happy)” to the question of “Taking all things together, would you say you are...”. Countries with significant change in happiness value are written in italic type.

The change in mean of happiness is shown in Table 4. The increase in happiness is only present in 4 countries. These countries are as follows: United States: 0.14, Australia: 0.07, Spain: 0.04 and Taiwan: 0.02. It is an interesting result that happiness changes only for these countries. The fact that the greatest change has taken place in the United States can be a predictable outcome since this country can easily adapt to changing living conditions. Turkey is among the countries with the least decrease in mean of happiness. The decrease in the value is 0.1. It can be said that the happiness level of Turkish people is affected by the change of living conditions. The countries with the highest decrease in happiness's mean are as follows: Mexico: 0.66, Armenia: 0.53, Ukraine: 0.38, Nigeria: 0.37 and Russia: 0.36. Among these countries the country that attracts attention Russia can be in line with the economy and the development of living conditions. Here again we can emphasize that the concept of happiness is a phenomenon that changes momentarily. So, changes in living conditions and other indicators may not have a lasting effect on people's happiness.

Table 5 shows the change in financial satisfaction's mean for selected countries during the determined start and end periods. The countries with the highest increase in mean of financial satisfaction are as follows; Romania: 1.94, Ukraine: 1:54, Estonia: 1.37, Turkey: 1.17, Argentina: 1.14, Peru: 0.90 and Sweden: 0.83. Argentina and Peru and other countries such as Romania and Estonia are close to each other in terms of geographical location. This situation may lead us to conclude that these countries can affect each other. Except Sweden, other countries are considered in the same development category. In this case, it may be one of the reasons why the increases in the variable are close to each other. The countries with the highest decrease in mean of financial satisfaction are as follows: Spain: 0.71 and India: 0.41. The reason for the decline in India can be attributed to the increasing population and consequently to insufficient employment.

**Table 5:** Financial Satisfaction in Turkey and Selected Countries (mean)

Financial Satisfaction					
1989-1993		1994-1998		2010-2014	
<i>Argentina</i>	5.31			<i>Argentina</i>	6.45
		Armenia	3.63	Armenia	4.26
		Australia	6.40	Australia	6.61
		Azerbaijan	4.56	Azerbaijan	5.61
Belarus	5.02			Belarus	4.79
Brazil	5.51			Brazil	6.21
Chile	5.91			Chile	6.00
China	6.12			China	6.22
		Colombia	8.00	Colombia	6.70
		<i>Estonia</i>	3.94	<i>Estonia</i>	5.30
		Germany	6.19	Germany	6.55
<i>India</i>	6.36			<i>India</i>	5.94
Japan	6.03			Japan	6.04
Mexico	6.15			Mexico	7.00
		New Zealand	6.46	New Zealand	6.88
Nigeria	5.51			Nigeria	5.64
		Pakistan	4.68	Pakistan	4.68
		<i>Peru</i>	5.12	<i>Peru</i>	6.02
		Philippines	6.04	Philippines	6.33
Poland	5.07			Poland	5.74
		<i>Romania</i>	3.84	<i>Romania</i>	5.78
Russia	4.98			Russia	4.84
		Slovenia	5.36	Slovenia	6.06
South Africa	5.46			South Africa	6.18
South Korea	5.75			South Korea	5.86
<i>Spain</i>	6.25			<i>Spain</i>	5.54
		<i>Sweden</i>	6.26	<i>Sweden</i>	7.09
		Taiwan	6.11	Taiwan	6.37
<i>Turkey</i>	5.09			<i>Turkey</i>	6.26
		<i>Ukraine</i>	3.00	<i>Ukraine</i>	4.54
		United States	6.56	United States	6.30
		Uruguay	6.73	Uruguay	6.64

**Source:** World Value Survey

**Note:** Financial satisfaction was calculated by taking into account the answers of “dissatisfied, 1, 2, 3, 4, 5, 6, 7, 8, 9, satisfied” to the question of “How satisfied are you with the financial situation of your household?”. Countries with significant change in financial satisfaction value are written in italic type.

Table 6 shows the change in the mean value of subjective state of health within countries. The countries with the highest decrease in mean of subjective health are as follows: Taiwan: 0.54, Poland: 0.47, Nigeria: 0.39, Slovenia: 0.39, Pakistan: 0.32, Argentina: 0.29, Spain: 0.28, Chile: 0.27 and Russia: 0.27. When we associate health status with people's economic situation, countries such as Russia and Spain had better value than others. But these countries are among the group in which their value decreases. When we look at the whole table, we see that Ukraine has the biggest values. These values are 2.98 for 1994-1998 and 2.75 for 2010-2014. The decrease in the health value of Pakistan and similar countries is very likely to be interpreted as a reflection of the inadequacy of economic conditions on health. Turkey is among the countries where these values decreased in. The average of 2.30 in 1989-1993 fell to 2.15 in 2010-2014. The countries with the highest increase in mean of subjective health are as follows: Australia: 0.05, Sweden: 0.04 and United States: 0.04. It is an expected result that the average of this value has increased for those living in these countries which are in good condition in terms of development level.

Table 7 shows the change in trust as a means of social capital for selected countries. When comparing the variable trust in the table, the ratio was used instead of mean, unlike the other tables. While 9.98 percent of people trust each other in the starting period, the ratio increased to 12.43 in the ending period for Turkey. The countries with large increases in trust rate are as follows Estonia: 18.05, Australia: 14.38 and Belarus: 9.69. When the table is examined as a whole, it is expected that there is an increase in trust ratio of people living in countries with better conditions than other countries. Such as Japan. However, there is a decrease of 2.95 in Japan. Countries with significant reductions in the following percentages are as follows: India: 17.80, Armenia: 14.55, Poland: 11.76, Romania: 11.58 and Spain: 11.51. The increase in the ratio for Turkey is an important result. This shows that people continue to be aware of the country and cumulate social capital despite the bad conditions in the country.

**Table 6:** Subjective State of Health in Turkey and Selected Countries (mean)

Subjective State of Health					
1989-1993		1994-1998		2010-2014	
<i>Argentina</i>	2.33			<i>Argentina</i>	2.05
		Armenia	2.53	Armenia	2.72
		<i>Australia</i>	1.90	<i>Australia</i>	1.96
		Azerbaijan	2.34	Azerbaijan	2.26
Belarus	2.85			Belarus	2.73
Brazil	2.09			Brazil	2.09
<i>Chile</i>	2.38			<i>Chile</i>	2.12
China	2.18			China	2.16
		Colombia	2.01	Colombia	1.99
		Estonia	2.70	Estonia	2.53
		Germany	2.34	Germany	2.13
India	2.27			India	2.09
Japan	2.56			Japan	2.44
Mexico	2.15			Mexico	2.03
		New Zealand	1.90	New Zealand	1.85
<i>Nigeria</i>	1.92			<i>Nigeria</i>	1.54
		<i>Pakistan</i>	2.22	<i>Pakistan</i>	1.91
		Peru	2.42	Peru	2.36
		Philippines	2.38	Philippines	2.30
<i>Poland</i>	2.75			<i>Poland</i>	2.28
		Romania	2.45	Romania	2.34
<i>Russia</i>	2.90			<i>Russia</i>	2.63
		<i>Slovenia</i>	2.64	<i>Slovenia</i>	2.25
South Africa	1.98			South Africa	1.75
		South Korea	2.07	South Korea	2.05
<i>Spain</i>	2.39			<i>Spain</i>	2.11
		<i>Sweden</i>	1.89	<i>Sweden</i>	1.93
		<i>Taiwan</i>	2.43	<i>Taiwan</i>	1.89
Turkey	2.30			Turkey	2.15
		Ukraine	2.98	Ukraine	2.75
		<i>United States</i>	1.89	<i>United States</i>	1.94
		Uruguay	2.03	Uruguay	1.97

**Source:** World Value Survey

**Note:** Subjective Health was calculated by taking into account the answers of “very poor(1), poor(2), fair(3), good(4), very good(5)” to the question of “Describe your state of health these days”. Countries with significant change in subjective state of health value are written in italic type.

**Table 7: Trust in Turkey and Selected Countries (% shares)**

		<b>Trust</b>			
		<b>1994-1998</b>		<b>2010-2014</b>	
<b>1989-1993</b>					
Argentina	23.31			Argentina	23.19
		<i>Armenia</i>	24.68	<i>Armenia</i>	10.14
		<i>Australia</i>	40.05	<i>Australia</i>	54.43
		Azerbaijan	20.53	Azerbaijan	16.65
<i>Belarus</i>	25.48			<i>Belarus</i>	35.17
Brazil	6.46			Brazil	6.58
Chile	22.70			Chile	12.77
China	60.30			China	64.44
		Colombia	10.80	Colombia	4.13
		<i>Estonia</i>	21.52	<i>Estonia</i>	39.57
		Germany	33.28	Germany	42.49
<i>India</i>	35.43			<i>India</i>	17.63
Japan	41.71			Japan	38.76
Mexico	33.45			Mexico	12.42
		New Zealand	49.05	New Zealand	56.78
Nigeria	23.21			Nigeria	14.78
		Pakistan	18.84	Pakistan	23.92
		Peru	5.02	Peru	8.28
		Philippines	5.54	Philippines	2.84
<i>Poland</i>	34.51			<i>Poland</i>	22.75
		<i>Romania</i>	18.70	<i>Romania</i>	7.12
Russia	37.46			Russia	29.23
		Slovenia	15.54	Slovenia	20.11
South Africa	29.14			South Africa	23.63
South Korea	34.17			South Korea	29.67
<i>Spain</i>	31.02			<i>Spain</i>	19.51
		Sweden	59.67	Sweden	64.85
		Taiwan	38.20	Taiwan	30.22
Turkey	9.98			Turkey	12.43
		Ukraine	30.97	Ukraine	24.95
		United States	35.94	United States	38.17
		Uruguay	21.64	Uruguay	15.25

**Source:** World Value Survey

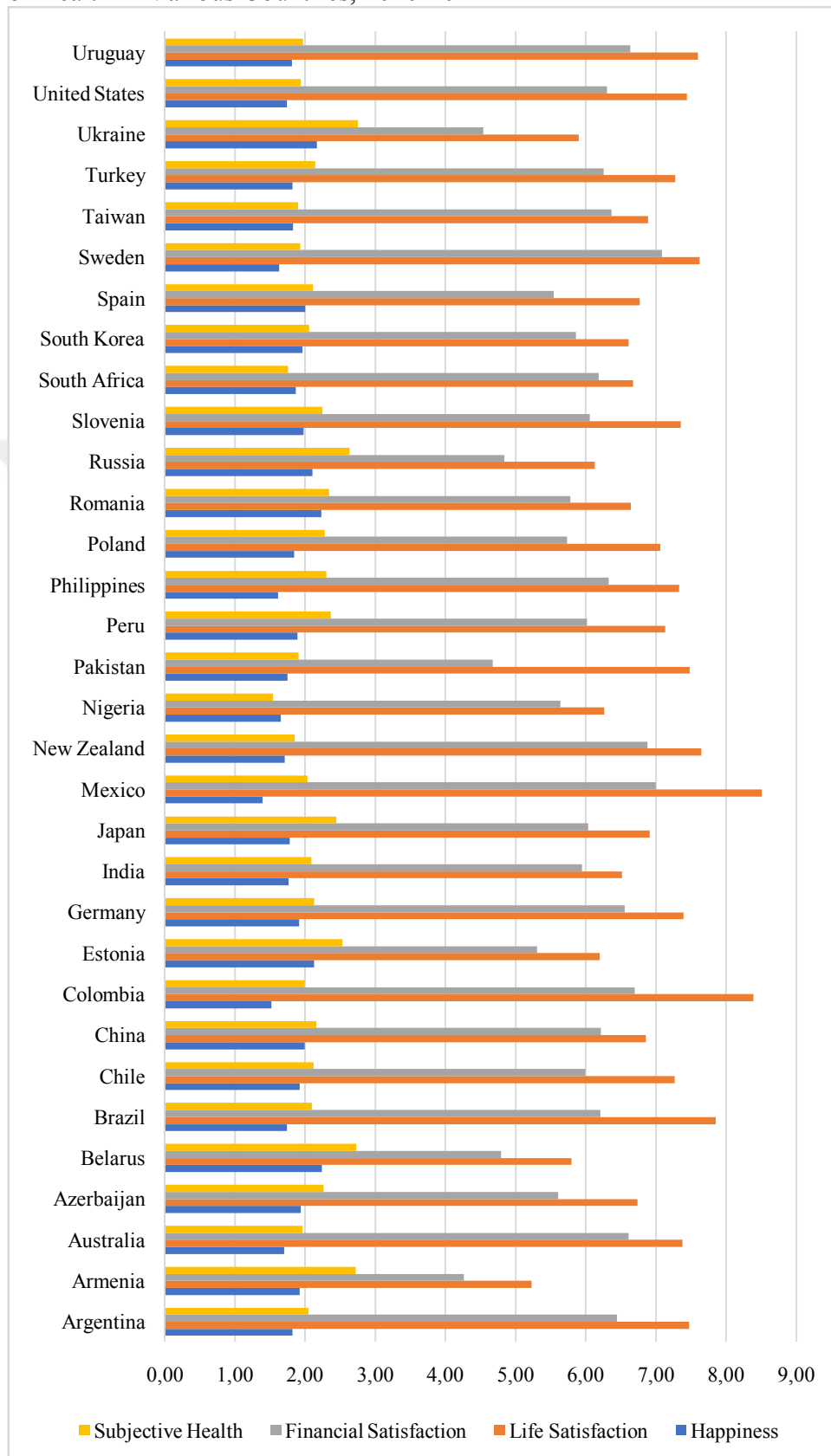
**Note:** Trust was calculated by taking into account the answers of “Yes (Most people can be trusted)” to the question of “People can be trusted/can’t be too careful”. Countries with significant change in trust value are written in italic type.

The mean values of life satisfaction, happiness, financial satisfaction and subjective state of health for last wave are shown graphically in Figure 1. Mexico has the highest value in life satisfaction rate, whereas Belarus has the highest value in both happiness and subjective health. Moreover, Sweden has the highest value in financial satisfaction.

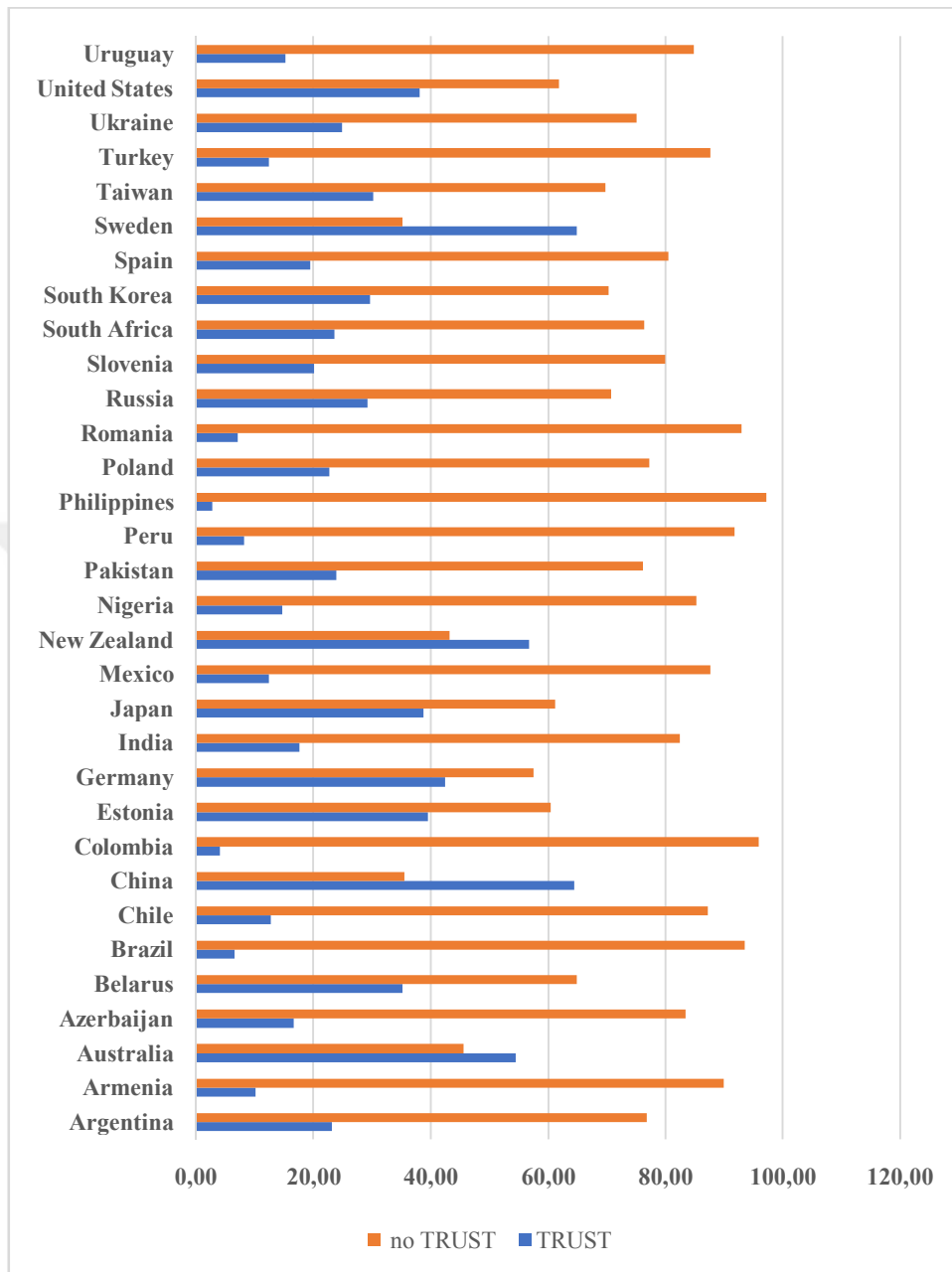
Figure 2 shows the variation of rate of the trust variables by country in last wave. Sweden has the highest trust rate (64.85) and Philippines has the highest no trust rate (97.16). When we examine the figure, it is seen that there are big differences between the no trust rate and trust rate among the countries. Only in Australia, China, New Zealand and Sweden is the trust rate higher than no trust rate. A common interpretation to be made within these countries is the high level of development. This is an important factor that provides confidence/trust environment. The difference between no trust and trust rate is 75.15 for Turkey. This difference in Turkey is close to the difference noticed in Armenia, Chile, Mexico and Nigeria.



**Figure 1: Life Satisfaction, Happiness, Financial, Satisfaction and Subjective State of Health in Various Countries, 2010-2014**



**Figure 2: Trust in Various Countries, 2010-2014**



### 2.3. SUBJECTIVE WELL-BEING IN TURKEY: A DESCRIPTIVE ANALYSIS

The data from the surveys cover five consecutive waves: 1989-1993, 1994-1998, 1999-2004, 2005-2009 and 2010-2014. World Value Survey is conducted in Turkey for the years 1990, 1996, 2001, 2007 and 2011. The tables below evaluate social capital and subjective well-being of Turkey. The tables present the difference in mean values of happiness, life satisfaction, subjective state of health, financial satisfaction and rate of trust value for all, female and male respondents.

**Table 8:** Feeling of Happiness in Turkey by Gender (mean)

		Feeling of Happiness		
Wave		All	Female	Male
1989-1993	Very happy	29.43	18.42	11.01
	Quite happy	51.95	24.95	27.00
	Not very happy	15.50	5.85	9.65
	Not at all happy	3.12	1.17	1.95
1994-1998	Very happy	49.13	26.67	22.47
	Quite happy	40.79	19.48	21.31
	Not very happy	7.77	2.78	4.99
	Not at all happy	2.31	0.79	1.52
1999-2004	Very happy	33.41	18.53	14.88
	Quite happy	43.18	21.91	21.26
	Not very happy	14.79	6.12	8.68
	Not at all happy	8.62	3.44	5.18
2005-2009	Very happy	37.47	20.07	17.40
	Quite happy	48.33	22.68	25.65
	Not very happy	9.67	4.76	4.91
	Not at all happy	4.54	2.23	2.30
2010-2014	Very happy	37.86	19.90	17.96
	Quite happy	46.62	22.84	23.78
	Not very happy	11.64	6.70	4.94
	Not at all happy	3.88	1.94	1.94

**Source:** World Value Survey

Table 8 shows the changes in the happiness rate of female and male through different waves of survey. Because happiness is a subjective and constantly changing phenomenon, the comments made while making comparisons may not be permanent. In this context, the events that create the feeling of happiness in female and the events that reverse the feeling of happiness may differ among female as well as in male. As can be seen in Table 8, the rate of happiness (very happy and quite happy) was highest among female in the 1994-1998 period. This year's values are 29.67 (very happy) and 19.48 (quite happy). It is seen that happiness rate is highest for male in 1994-1998 years. Very happy is 22.74 and quite happy is 21.31. The important point is whether the change in male is in the same direction as the change in female. There is no significant increase or decrease in happiness rate for male and female. In other words, it is possible to say that changing conditions in the country (such as economic and demographic) may have no significant effect on the gender. Of course, this interpretation does not take into account other variables, but happiness is considered true only when we compare in itself. In the year 1999-2004, the rate of unhappiness was the highest in terms of the sum of not very happy and not at all happy values. This value is 9.56 for female and 13.85 for male. The interpretation of the values in the table namely possible to reach a good conclusion, women are happier than men in the same year in which they live. Men are more unhappy than women they live in the same year.

Table 9 shows the change in life satisfaction. The difference of this variable from happiness variable is that the effect is wider, not instantaneous. In other words, when we interpret life satisfaction, we can take the lives of people and the conditions of their environment as a whole. When we interpret the values in Table 9, we see that the medium satisfaction values are the highest for both sexes. Medium satisfaction means to add the values of numbers 5, 6, 7 and 8. For example, between 1989-1993 this value is 62.90 and between 2010-2014 this value is 61.20. Medium satisfaction rate is around 60. In other words, the people living in Turkey are generally satisfied with their lives. One of the interesting results that can be drawn from the table is that the years of satisfaction, medium satisfaction and dissatisfaction values are the same for both men and women. One of the interesting results that can be drawn from the

table is that dissatisfied, medium satisfied and satisfied have the highest value in the same years.

**Table 9: Life Satisfaction in Turkey by Gender (mean)**

		<b>Life Satisfaction</b>		
<b>Wave</b>		<b>Total</b>	<b>Female</b>	<b>Male</b>
<b>1989-1993</b>	Dissatisfied	5.65	2.24	3.41
	2	1.27	0.88	0.39
	3	4.38	1.66	2.73
	4	4.97	2.24	2.73
	5	24.15	12.17	11.98
	6	11.68	5.36	6.33
	7	11.68	4.67	7.01
	8	15.38	8.08	7.30
	9	4.77	3.21	1.56
	Satisfied	16.07	9.93	6.13
<b>1994-1998</b>	Dissatisfied	6.37	3.26	3.11
	2	2.16	0.79	1.37
	3	5.00	2.16	2.84
	4	5.84	2.53	3.32
	5	26.79	13.16	13.63
	6	9.58	4.11	5.47
	7	12.11	5.84	6.26
	8	12.47	6.47	6.00
	9	3.95	2.21	1.74
	Satisfied	15.74	9.11	6.63
<b>1999-2004</b>	Dissatisfied	10.26	4.35	5.91
	2	3.21	1.21	2.00
	3	6.18	2.38	3.79
	4	8.59	3.50	5.09
	5	20.68	10.59	10.09
	6	10.74	5.29	5.44
	7	10.82	5.59	5.24
	8	11.65	6.53	5.12
	9	5.09	2.85	2.24

2005-2009	Satisfied	12.79	7.68	5.12
	Dissatisfied	3.05	1.63	1.41
	2	1.34	0.59	0.74
	3	3.42	2.01	1.41
	4	2.67	1.49	1.19
	5	5.72	2.97	2.75
	6	9.96	4.61	5.35
	7	16.34	7.58	8.77
	8	21.62	10.25	11.37
	9	15.68	7.95	7.73
2010-2014	Satisfied	20.21	10.70	9.51
	Dissatisfied	2.06	1.12	0.94
	2	1.56	0.87	0.69
	3	2.44	1.31	1.12
	4	3.44	1.50	1.94
	5	8.49	4.43	4.06
	6	10.43	5.00	5.43
	7	19.49	9.37	10.12
	8	22.80	11.43	11.37
	9	15.80	9.12	6.68
	Satisfied	13.49	7.31	6.18

**Source:** World Value Survey

In 1999-2004 rate of low level satisfaction (dissatisfied, 2, 3, 4) is 11.44. For male, this rate reached its highest level in the same year (16.79). Again, the medium satisfied value was highest for female and male in the year 1989-1993, 30.28 for female and 32.62 for male. The year they were most satisfied is 2005-2009. Satisfied rates this year is 18.65 for female and 17.24 for male. We can interpret that these values are the same, that is, women and men are equally affected by the changing conditions in which they live.

In interpreting the financial satisfaction variable, the impact of the country's economic conditions is an undeniable factor. In other words, interpretations based on estimation of happiness and life satisfaction variables may gain more certainty for financial satisfaction. As we look at the values in Table 10 in the 2001 crisis that is

experiencing Turkey this year that dissatisfaction value (sum values of dissatisfied, 1, 2, 3, 4) we notice that the highest. The value is 22.37 for male and 26.26 for male. We can say that the crisis has a significant effect on this value.

**Table 10:** Financial Satisfaction in Turkey by Gender (mean)

		<b>Financial Satisfaction</b>		
<b>Wave</b>		<b>Total</b>	<b>Female</b>	<b>Male</b>
<b>1989-1993</b>	Dissatisfied	6.55	2.64	3.91
	2	5.38	2.44	2.93
	3	8.60	4.01	4.59
	4	10.17	4.69	5.47
	5	34.41	17.79	16.62
	6	13.88	7.62	6.26
	7	8.99	4.59	4.40
	8	5.96	2.74	3.23
	9	1.37	0.88	0.49
	Satisfied	4.69	3.03	1.66
<b>1994-1998</b>	Dissatisfied	7.11	3.11	4.00
	2	3.47	1.95	1.53
	3	8.26	3.74	4.53
	4	7.89	3.21	4.68
	5	34.11	19.00	15.11
	6	14.00	6.74	7.26
	7	10.95	5.05	5.89
	8	8.00	3.53	4.47
	9	1.26	0.79	0.47
	Satisfied	4.95	2.63	2.32
<b>1999-2004</b>	Dissatisfied	18.34	8.39	9.95
	2	6.98	3.12	3.86
	3	12.78	5.59	7.18
	4	10.54	5.27	5.27
	5	25.61	13.95	11.66
	6	9.39	4.97	4.42
	7	6.89	3.33	3.56
	8	4.95	2.94	2.00

	9	1.50	0.74	0.77
	Satisfied	3.03	1.71	1.32
	Dissatisfied	4.25	2.61	1.64
2005-2009	2	3.50	1.94	1.57
	3	5.29	2.98	2.31
	4	6.56	3.43	3.13
	5	16.63	8.28	8.35
	6	20.36	10.51	9.84
	7	20.43	8.43	12.01
	8	13.12	6.86	6.26
	9	6.41	3.43	2.98
	Satisfied	3.43	1.34	2.09
		Dissatisfied	2.97	1.58
2010-2014	2	1.70	1.20	0.51
	3	5.18	3.03	2.15
	4	7.70	3.98	3.72
	5	16.67	8.78	7.89
	6	18.37	10.23	8.14
	7	18.62	7.95	10.67
	8	15.47	8.27	7.20
	9	7.64	3.41	4.23
	Satisfied	5.68	2.59	3.09

**Source:** World Value Survey

The increase in satisfaction rate (sum values of 9 and satisfied) is higher in male. For example, the value in 1999-2004 is 2.44 for male and 2.09 for male. In the following period, in 2005-2009, the value of 2.44 increased to 4.77 and 2.09 to 5.07. 2010-2014 is the period when female's financial satisfaction rate is highest. The value is 6.00. Among male, this ratio reached its highest value in the same period. It is 7.32. While the financial satisfaction rate of female is increasing continuously, the change in male is increasing and decreasing except for 1999-2004. For women, this increase can be attributed to opportunities to increase their contribution to the home economy. For men, it can be interpreted that continuous change is caused by the change of the other income resources that contributes to their economies besides



regular income. The general conclusion to be drawn from the table is that the increase in financial satisfaction rate is due to the fact that the income of the people has reached a better level.

**Table 11:** Trust in Turkey by Gender (rate)

		<b>Trust</b>		
<b>Wave</b>		<b>All</b>	<b>Female</b>	<b>Male</b>
<b>1989-1993</b>	trust	9.98	4.84	5.14
	no trust	90.02	45.55	44.47
<b>1994-1998</b>	trust	5.50	2.43	3.07
	no trust	94.50	47.41	47.09
<b>1999-2004</b>	trust	19.30	8.57	10.72
	no trust	80.70	41.28	39.43
<b>2005-2009</b>	trust	4.78	2.54	2.24
	no trust	95.22	47.27	47.95
<b>2010-2014</b>	trust	12.43	5.13	7.30
	no trust	87.57	46.75	40.83

**Source:** World Value Survey

When interpreting changes in the trust variable, we can think of it as instantaneous as the happiness variable, or consider certain factors, such as the other variables like life satisfaction and financial satisfaction. Table 11 shows the change in trust over the years. This change is in the form of increase and decrease, there is no stability in a certain direction. The highest trust level for female is in 1999-2004 period. This value is 8.57 %. This is the same for male, which is 10.72 %. While the ratio of the positive states of the other variables (life satisfaction, happiness, financial satisfaction) mentioned was low in 1999-2004, trust rate was high between these years. In other words, it is independent of the mood and living conditions and economic conditions in which people feel trust with each other. In the 1994-1998 period, no trust rate gets the highest value for female, 47.41 %. The highest value of

no trust for male is in the 2005-2009 period (47.95 %). It is possible to link the no trust variable to many reasons, such as experience, perspective and lifestyle. For men and women, the difference between the overall trust rate and no trust rate is large. No trust is higher than trust in each period.

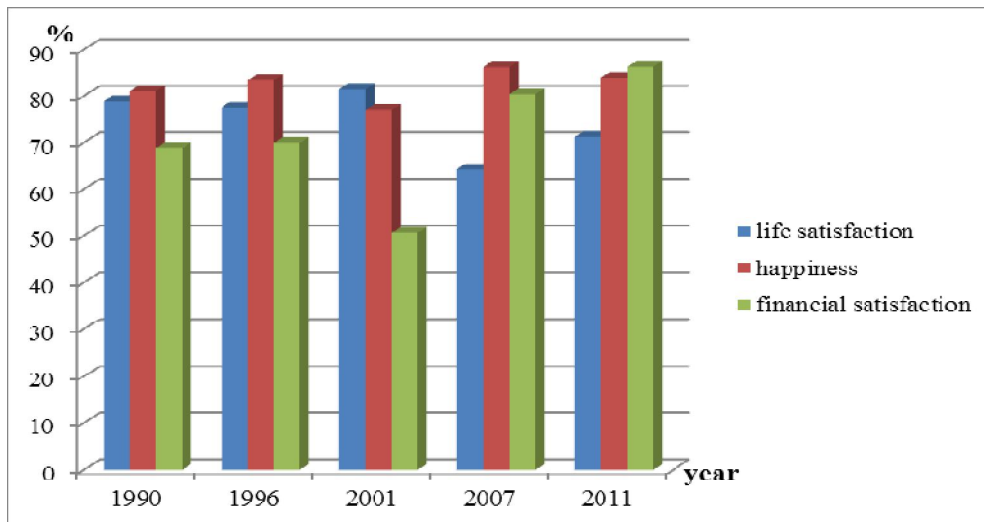
**Table 12:** Subjective State of Health in Turkey by Gender (mean)

		<b>Subjective State of Health</b>		
<b>Wave</b>		<b>All</b>	<b>Female</b>	<b>Male</b>
<b>1989-1993</b>	Very good	16.70	7.28	9.42
	Good	43.50	21.36	22.14
	Fair	33.79	17.96	15.83
	Poor	5.15	2.91	2.23
	Very poor	0.87	0.78	0.10
<b>1994-1998</b>	Very good	18.58	7.66	10.92
	Good	44.09	21.21	22.89
	Fair	30.03	16.12	13.91
	Poor	6.35	4.15	2.20
	Very poor	0.94	0.58	0.37
<b>1999-2004</b>	Very good	17.92	6.90	11.02
	Good	46.01	22.58	23.43
	Fair	26.32	14.65	11.67
	Poor	7.34	4.36	2.98
	Very poor	2.42	1.56	0.85
<b>2005-2009</b>	Very good	16.85	6.34	10.51
	Good	50.93	24.09	26.85
	Fair	23.64	13.87	9.77
	Poor	7.76	5.15	2.61
	Very poor	0.82	0.45	0.37
<b>2010-2014</b>	Very good	20.38	9.43	10.96
	Good	49.75	25.22	24.52
	Fair	24.78	13.38	11.40
	Poor	5.10	3.38	1.72
	Very poor	0.00	0.00	0.00

**Source:** World Value Survey

It is possible to correlate the subjective state of health with living conditions. Good and regular income will be effective in the form of nutrition will affect health. Table 12 shows the health status of women and men in different waves. The proportion of female with very good health status is 9.43 in the period of 2010-2014. This ratio for male in the period 1999-2004 is 11.02. In general, very good and good health of female is lower than male at all periods. That is to say, men's subjective state of health is better than that of women. If we make this review for very poor and poor rates, we can reach the same conclusion. It can be said that the number of female with poor health status is higher than the number of male with poor health status. In the 1999-2004 period, the ratio of very poor and poor health status together for female is 5.92. The highest value of very good and good health status is 37.36 at all period. This value belongs to male in the period 2005-2009. Why are the number of women feeling healthy lower than men in the same situation and why the number of women feeling unhealthy is higher than men in the same situation? This can also be influenced by the roles imposed on women in society and, as a result, women's self-negligence and their sacrifice attitude.

**Figure 3:** Life satisfaction, Happiness and Financial Satisfaction in Turkey

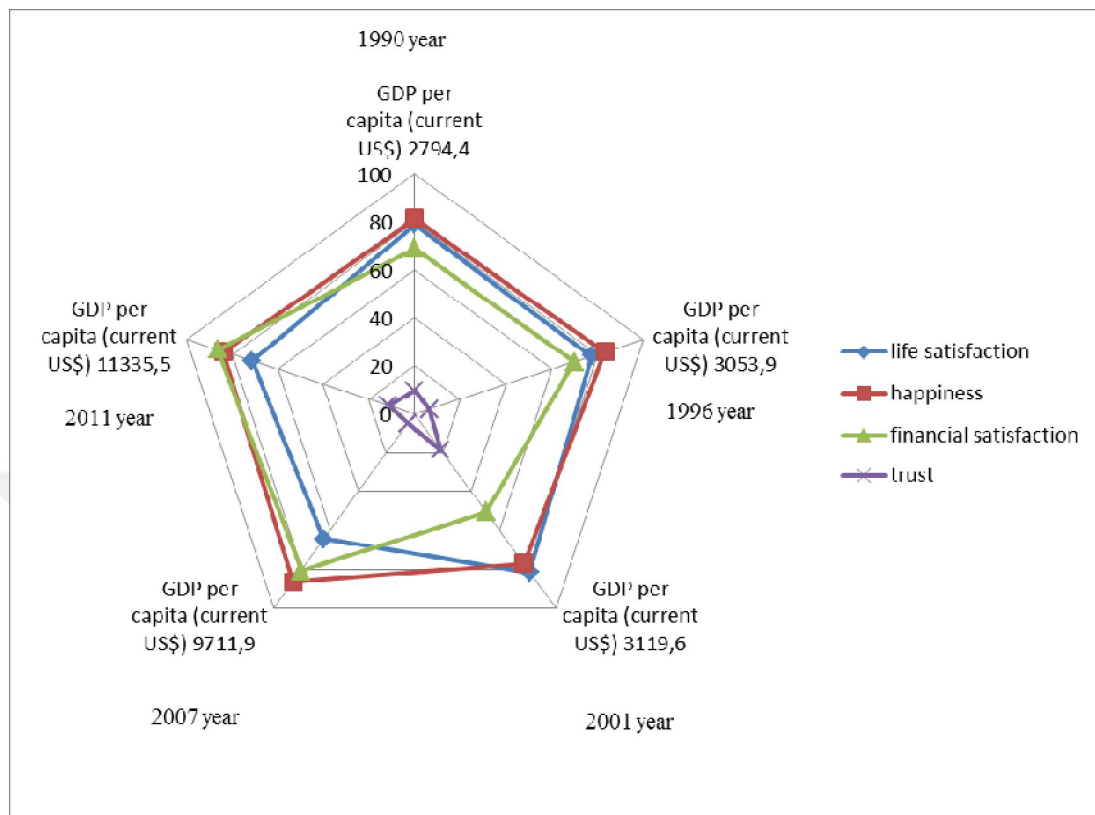


**Source:** World Value Survey

After the numerical representation in the tables, the changes of all variables over 5 consecutive waves are shown in Figure 3. In the figure, although the variables are related to each other, the movements of the variables according to years are

shown, but the increase and decrease in happiness and financial satisfaction ratios coincide with the same period. For example, the ratio between the two variables increased from 1990 to 1996 and the ratio of these two variables decreased from 1996 to 2001. This situation deteriorates in 2011. While this year's happiness has decreased compared to the previous year, the financial satisfaction has increased. It can be said that there is a direct correlation between financial satisfaction and living standards and this relationship will affect happiness. In this respect, it can be said that the relationship between these two variables is positive. However, since happiness is a constantly changing and subjective phenomenon, it is not possible to make definitive judgments. The largest decrease in life satisfaction ratio occurred in the transition from 2001 to 2007. Increase and decrease of life satisfaction is opposite to financial satisfaction on year basis, excluding 2011. For example, from 1990 to 1996 life satisfaction decreased whereas financial satisfaction increased. Life satisfaction increased from 2001 to 2007 as financial satisfaction decreased. Considering the changes of all variables, the biggest change was the increase in financial satisfaction variable from 2001 to 2007. This can be explained by the recovery process after the 2001 crisis.

**Figure 4:** Relationship between Trust, Life Satisfaction, Happiness and Financial satisfaction and GDP per capita



**Source:** World Value Survey

Figure 4 shows the relationship between GDP per capita (dollar based) life satisfaction, happiness, financial satisfaction and trust over the years. In the previous figure, there was no consistency in the increase or decrease of the variables (life satisfaction, happiness and financial satisfaction). Based on the assumption that the phenomenon of confidence reduces costs, the relationship between trust and growth is expected to be positive. The expected relationship results between variables cannot be seen in Figure 4. In other words, the positive relationship between growth and financial satisfaction is the result of positive cultivation of trust and of course the increase in life standards and the increase in life satisfaction. However, the variables act as independent. As a result, we can say that the variations of the variables in Figure 4 are consistent in themselves and they cannot reveal a meaningful relationship when they come together.

## CHAPTER THREE

### THE DETERMINANTS OF SUBJECTIVE WELL-BEING: ESTIMATION RESULTS

#### 3.1. METHODOLOGY

In this study, ordered logit model was used to measure the relationship between dependent and independent variables. The model is the most preferred method of estimating happiness and similar variables (Selim, 2008; Sönmez and Sönmez, 2018; Caner, 2015; Ekici and Koydemir, 2013).

One of the regression models used to measure an ordinal response variable is the ordered logit model (Grilli and Rampichini, 2014). The cumulative probabilities of the response variable determine the model. In special, it is assumed that the logit of each cumulative probability is a linear function of the variables with regression coefficients (Grilli and Rampichini, 2014). In cases where the dependent variable takes more than two values, ordered qualitative preference models are used when there is an ordered structure among the options. The order mentioned for the options that make up the dependent variable does not give information about the power of the options, so this order does not indicate that there is an advantage among the options. The most widely used sequential qualitative preference models are sequential logit models (Timur and Akay, 2017).

Questions about life evaluation and satisfaction with expectations are often ordered in nature. For example, the answer of the question “*How satisfied a person with her/his life?*” can categorize from 1 to 10. 1 answer to the question means very dissatisfied and 10 answer to the question means very satisfied. Assuming that there are equal distances between the categories, it would be reasonable to analyze ordinal outcome by linear regression model. The important thing to note is that the answer variable of interest is ordinal. But in such a case you need to use a particular model such as the ordered logit model (Grilli and Rampichini, 2014).

In the logit model, suppose that the dependent variable  $Y$  has values of 0, 1, 2, ...,  $m$ . In the equation,

$$y_i = m \quad \text{if} \quad \tau_{m-1} \leq y_i^* < \tau_m \quad \text{for} \quad m = 1 \quad \text{to} \quad J \quad (1)$$

$y^*$  is a latent or unobserved variable. It changes from  $-\infty$  to  $+\infty$  and it is matched to an observed variable  $y$ . Where  $y$  is observed in  $J$  number of ordered categories.  $\tau$  means thresholds or cut points. To sample the equation using happiness as a dependent variable. The question used to measure variable happiness is “*Taking all things together, would you say your are...*”. Answer is categorized in four value: *very happy* (4), *quite happy* (3), *not very happy* (2) and *not at all happy* (1). It is understood that the person who says 4 value has the highest happiness value (Selim, 2007). If we model the relationship between  $y^*$  and  $y$ ,

$$y_i = \begin{cases} 1 & \text{if } \tau_0 = -\infty \leq y_i^* < \tau_1 \\ 2 & \text{if } \tau_1 \leq y_i^* < \tau_2 \\ 3 & \text{if } \tau_2 \leq y_i^* < \tau_3 \\ 4 & \text{if } \tau_3 \leq y_i^* < \tau_4 \end{cases}$$

The cumulative probability value of the ordered logit model for the category of  $m$  is,

$$P(y \leq m) = F\left(\tau_m - \sum_{k=1}^k \beta_{mk} - x_k\right) \quad m = 1, 2, \dots, M - 1$$

expressed as,  $F\left(\tau_m - \sum_{k=1}^k \beta_{mk} - x_k\right)$  is distribution function.

In ordered logit model, the predicted coefficients can not be interpreted directly. Therefore, the difference ratios are calculated in order to interpret the coefficients of the model. In ordered logit models, when interpreting coefficients, it is possible to compare 2, 3, 4 and 5 options against 1; 3, 4 and 5 options against 2; 4 and 5 options against 1, 2 and 3; 5 options against 1, 2, 3 and 4. This comparison provides the opportunity to examine and interpret the effects of explanatory variables on the options of the dependent variable in more detail.

### 3.2. MODEL AND DATA

The data used in the study are as follows; happiness, life satisfaction, trust to others, trust to empowering institutions, trust to armed forces, trust to political institutions, type of employment, education, importance of family, importance of friends, importance of leisure, importance of politics, importance of work, importance of religion, income, marital status, number of children, age, gender. Happiness and life satisfaction are dependent variables. The others are explanatory variables. We will analyze the impact of social capital and as well as demographic variables on subjective well-being by gender. Moreover, the following answers were removed from the data when creating the data set; “*missing, unknown, not asked in survey, no answer, do not know*”.

Happiness values are obtained from the answers given “*Taking all things together, would you say you are*” the question. The answers are *very happy, quite happy, not very happy* and *not at all happy*. *Very happy* takes value 4, *quite happy* takes value 3, *not very happy* takes value 2 and finally *not at all happy* takes value 1.

Life satisfaction values are obtained from the answers given “*All things considered, how satisfied are you with your life as a whole in these days?*” question. Life satisfaction is measured on a scale from 1 to 10. Satisfaction degree increases from 1 to 10 (a higher value means that a person is currently more satisfied with his/her life). So 1 means dissatisfaction and 10 means satisfaction.

Trust values are obtained from answer (*most people can be trusted, can't be too careful*) in return for the question “*would you say that most people can be trusted or that you need to be very careful in dealing with people?*”. Trust variable takes 1 as value if the respondent states that most people can be trusted and 0 otherwise. Other social capital variables are trust to empowering institutions, trust to armed forces, and trust to political institutions. Trust to empowering institutions consists of confidence in press and confidence in labor unions. Trust to armed forces consists of confidence in armed forces and confidence in police. Trust to political institutions consists of confidence in parliament, confidence in government and confidence in political party. Trust values are obtained from answer in return for the question “*how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?*”. The answers of a great



deal takes 4, quite a lot of takes 3, not very much takes 2 and none at all takes 1 as value.

The occupational statuses of the respondents are categorized under 6 section. These are included in the employment variable as follows: “*full time*”, “*part time*”, “*self-employed*”, “*retired*”, “*housewife*” and “*students*”. Another variable is education level. It is categorized into seven type in line with the survey responses. They are “*completed (compulsory) elementary school*”, “*incomplete secondary school*”, “*complete secondary school*”, “*incomplete secondary school: university preparatory type*”, “*complete secondary school: university-preparatory type*”, “*some university without degree*” and “*university with degree*”.

Importance of family, importance of friends, importance of leisure, importance of politics, importance of work, importance of religion values are obtained from answer (*very important, rather important, not very important, not at all important*) in return for the question “*For each of the following, indicate how important it is in your life. Would you say it is*”. Income scale indicates “*the lowest income*” group if the respondent’s answer is 1 and “*the highest income*” group if the respondent’s answer is 10. Marital status is examined in three category. First category consists of the respondents that are *married* and second category consists of respondents that are *divorced, separated* and *widowed*. The last category consists of the respondents that are *single* and *never married*. Number of children values are determined as follows; *no child, one child, two children* and *more than two children*. This variable is set to 3 scale. Age variable is the age of the respondent when the survey is conducted. We also included the square of the age as a variable to our estimation model since to see whether the U-shaped relationship between age and happiness and(or) life satisfaction is valid. Income variable on a scale from 1 to 10. Income level of the respondent increases from 1 to 10 (a higher value means that a person has a higher level of income).

### **3.3. ESTIMATION RESULTS**

In this part of the study, we estimate the data based on the 2010-2014 period. The first method of analysis is to evaluate and interpret the dependent and independent variables used in the study as a percentage. The base categories in the

regressions are married, no children, unemployed, less than elementary school, does not think that religion/family/friends/leisure time/politics/work is important, does not think that most people can be trusted, lowest income group (1 out of 10) and does not have confidence in empowering institutions/armed forces/political institutions. The two variables, financial satisfaction and subjective state of health variables, are not used in estimation in order to reach more valid and reasonable results. The reason why subjective state of health is not used is that it is correlated with all the variables we use in estimating and because it is 100% meaningful in the model, it distorts the significance of other variables. We used these two variables only in descriptive analysis in chapter 2.

Table 13 summarizes the answers given by the participants of the WVS survey in the period of 2010-2014 according to the variables we used for Turkey. 46.62% of the respondents are quite happy and about 37.86% of the respondents are very happy. People in living Turkey seem to be quite happy during this period. Life satisfaction ratio is in the middle, that is to say, for the Turkish people at medium levels of satisfaction with life. About 71.58% of the respondents gathered around 7 and above.

The respondents employment status vary between full-time (26.85%), retired (10.89%) and housewife (33.92%). The majority of the education level consists of a completed (compulsory) elementary school (29.46%), complete secondary: university-preparatory type (30.91%) and university with degree (15.65%). The rate of those respondents who do not have children is as high as 36.76. However, due to our traditional structure, the proportion of at least 3 children is 25.30%, which is a high rate. If we look at the income situation, about 72.31% of the respondents have a higher income level of 5 and above. Rate of middle income group 52.32% (income levels 6, 7, 8, 9).

95.70% of the respondents think that the family is important. It is an expected result for Turkey. Friends, leisure, work and religion are also important for respondents. The rate of those who say that the politics is not very important is the highest rate in this category with 33.08%. It is interesting to note that this variable is insignificant in a country internalized by politics.

**Table 13:** Descriptive statistics (% shares)

	2010-2014		2010-2014	
<b>Happiness</b>			<b>Income step</b>	
	Not at all happy	3.88	1: lowest	1.91
	Not very happy	11.64	2	2.86
	Quite/rather happy	46.62	3	8.15
	Very happy	37.86	4	14.77
<b>Life satisfaction</b>			5	19.22
	1: lowest	2.06	6	16.93
	2	1.56	7	17.63
	3	2.44	8	11.90
	4	3.44	9	5.86
	5	8.49	10: highest	0.76
	6	10.43	<b>Family important?</b>	
	7	19.49	Not at all	0.19
	8	22.80	Not very	0.12
	9	15.80	Rather	3.99
	10: highest	13.49	Very	95.70
<b>Age</b>		38.44		
<b>Gender</b>			<b>Friends important?</b>	
	Male	48.60	Not at all	0.44
	Female	51.40	Not very	2.06
<b>Type of employment</b>			Rather	38.27
	Unemployed	4.82	Very	59.22
	Student	8.76	<b>Leisure important?</b>	
	Housewife	33.92	Not at all	1.64
	Retired	10.89	Not very	11.08
	Part-time	6.26	Rather	43.68
	Full-time	26.85	Very	43.61
	Self-employed	8.51		
<b>Education</b>			<b>Politics important?</b>	
	Incomplete (compulsory) elementary school	4.16	Not at all	18.18
	Completed (compulsory) elementary school	29.46	Not very	33.08
	Incomplete secondary school	2.97	Rather	31.95
	Complete secondary school	8.98	Very	16.79
	Incomplete secondary: university-preparatory type	2.97	<b>Work important?</b>	
	Complete secondary: university-preparatory type	30.91	Not at all	5.53
	Some university without degree	4.89	Not very	11.64
	University with degree	15.65	Rather	32.14

<b>Number of children</b>			Very	50.69
	0	36.76	<b>Religion important?</b>	
	1	14.89	Not at all	3.19
	2	23.05	Not very	4.38
	3+	25.30	Rather	26.56
<b>Marital status</b>			Very	65.88
	Married	65.67	<b>Trust to others</b>	12.43
	Divorced. Separated. Widowed	7.23	<b>Confidence in</b>	
	Single/never married	27.10	<b>empowering institutions</b>	56.36
			<b>Confidence in armed</b>	
			<b>forces</b>	84.26
			<b>Confidence in political</b>	
			<b>institutions</b>	68.18

**Source:** The authors calculations based on World Value Survey

When we analyze the marital status of the respondents, we see that married respondents constitute the largest ratio of 65.67%. The group of respondents that mostly trust on arm forces with a rate of 84.26%, followed by political institutions with a rate of 68.18%. A large percentage of the fact that politics is not very important and a high degree of confidence in political institutions may create a contradiction. Finally, when we evaluate people's trust to each other, it is seen that this ratio is 12.43% that is low.

The determinants of happiness and life satisfaction using the ordered logit model is shown in Tables 14 and 15. Standard interpretation of the ordered logit coefficient is that for a one unit increase in the predictor, the response variable level is expected to change by its respective regression coefficient in the ordered log-odds scale while the other variables in the model are held constant. For example, the ordered logit for males being in a higher happiness category (namely being very happy) is 0.176 more than females when the other variables in the model are held constant in Table 14 Column 1.

As can be seen, a significant relationship between happiness and control variables is greater than that of the relationship between life satisfaction. There was no significant relationship between age and both dependent variables. There was no significant relationship between age and both dependent variables. For the variable of age, a U-shaped relationship, which is the square of the age, was also included in the models. Age squared has no significant relationship between happiness and life satisfaction. It can be concluded that age is not important for the measurement of

happiness and life satisfaction for the respondents in 2010-2014 wave. When we look at the literature, we see U-shaped relationship between age and happiness. Caner (2015) concluded that the lowest level of happiness was below the age of 50s (Caner, 2015) . According to another study, women in the 35-44 age group have lower life satisfaction than women in the youngest group, and does not matter to women in the other age group. For men, the life satisfaction effect of all age groups is significant (Selim, 2008). In Eren and Aşıcı (2016), the 45 to 55 age group was defined as the most unhappy population (Eren and Aşıcı, 2016). It is seen that the correlations of life satisfaction with age is negative in Sönmez (2018).

Since happiness and life satisfaction did not give significant results according to gender, we will also estimate separate models for men and women to take into account gender differences. However, it was concluded that women are happier than men in studies in the literature for Turkey (Caner, 2015; Selim, 2008 and Ekici and Koydemir, 2013). Selim (2008) found that being men have a negative effect on life satisfaction whereas Sönmez (2018) found a negative relationship between gender and life satisfaction (Selim, 2008 and Sönmez, 2018).

In terms of employment status, being a housewife has a positive effect on happiness and life satisfaction, even the relationship between life satisfaction is stronger. This value may have been meaningful as a result of housewives trying to be satisfied with their current situation or accepting this situation. In the end, we can also consider being a housewife as a lifestyle. It is unexpected that retirement is not related to happiness and life satisfaction. But considering the living conditions of the country, it is realized that this result is possible. Being fully-employed and self-employed affect life satisfaction and happiness positively for men. The effect of part time employment status is positive only for the life satisfaction among male. The fact that other occupational groups do not have any impact on happiness for women other than being a housewife is an disputable result for a country with a developing economy.

The conclusions drawn for employment status are similar to previous literature. Being unemployed is associated with low happiness and life satisfaction and being employed or self-employed is associated with happiness and life satisfaction (Caner, 2015). Selim (2008) found that part-time employees are less

satisfied with comparing the self-employed (Selim, 2008). Ekici and Koydemir (2013) found that unemployed females are less happy than the self-employed females and males are less happy and less satisfied with their life than their counterparts (Ekici and Koydemir, 2013). According to Eren and Aşıcı (2016), unemployed individuals are happier than the employed (Eren and Aşıcı, 2016).

Education levels have no significant impact on life satisfaction. There is a positive relationship between education levels and happiness. Except incomplete secondary: university-preparatory education level, all education types are positively associated to happiness among total. The levels of education that affect women's happiness are as follows: some university without degree, complete secondary: university-preparatory type and completed (compulsory) elementary school. It may be concluded that there is no equality of opportunity between the genders in terms of education. Women may have the opportunity to express themselves only at these levels of education. Life satisfaction is not significantly affected by any of the education levels. This may be due to the fact that people do not attach importance to education in their lives. There is a strong positive relationship between university graduation and happiness among male.

Our results are in line with the previous literature. Caner (2015) found that being more educated reduces the likelihood of being happy (Caner, 2015). Selim (2008) categorized education level into 3 level that are lower, middle and upper levels (Selim, 2008). She found that having a middle level of education decreases happiness and middle education has a negative direct impact on life satisfaction among females. The effect of middle education is fewer than the effect of lower education. No level of education is associated with happiness. Lastly, upper education level has no effect on life satisfaction (Selim, 2008). Unlike Selim (2008), Eren and Aşıcı (2016) found a positive relationship with happiness and increased levels of education (Eren and Aşıcı, 2016). On the other hand, Sönmez (2018) concluded that higher education level is negatively correlated with the happiness (Sönmez, 2018).

There is no relationship between having children and happiness and/or life satisfaction. Actually, this variable is expected to be effective for traditional countries such as Turkey. According to Selim (2008), females having three or more

children are less satisfied than females without children, individuals having two or more children are less satisfied than the individuals without children (Selim, 2008). Among male, respondents having one or two children are less satisfied than men without children (Selim, 2008). According to Sönmez (2018), higher number of children is associated with less happy and less satisfied life (Sönmez, 2018).

Divorced, separated, widowed and single/never married women have a lower probability of happiness than married women. This may be due to community pressure or differences in people's expectations from life. In general, happiness is negatively affected by other situations except marriage. Being single/never married has a negative impact on life satisfaction. Since the importance and necessity of being married is taught in accordance with our traditional structure, it is acceptable to have a negative effect on life satisfaction. In all of other studies, being married has a positive effect on happiness and life satisfaction (Caner, 2015; Selim, 2008; Ekici and Koydemir, 2013; Eren and Aşıcı, 2016 and Köksal et al., 2017). The general finding of these studies is that never married, divorced, separated or widows are less happy and have lower life satisfaction.

When income distribution is taken into consideration, it is noticed that medium income (income levels of 7, 8, 9) has a positive impact on happiness for women. It is seen that there is a positive and significant relationship between medium income and both happiness and life satisfaction among males. Here we can conclude that the opportunities offered to men and women in the business world are not the same. This inequality arises because women are employed only in occupations with certain income groups. Caner (2015) categorized income group in three namely, level, middle, medium and upper (Caner, 2015). He found the upper and middle income groups (6, 7, 8 and 9) are less happy and less satisfied with their lives. The lowest income group have more happiness and life satisfaction than other groups (Caner, 2015). Selim (2008) also found positive relationship between income and happiness, like Eren and Aşıcı (2016), Köksal and Şahin (2015), Sönmez (2018).

The importance of family, leisure and religion have a positive and significant impact on both happiness and life satisfaction. There is a strong positive relationship between happiness and the importance of family and religion in particular. Leisure time also has a strong relationship with life satisfaction. What is

interesting is that importance of politics variable has a negative relationship with life satisfaction variable among male. This means that people do not think that change in politics will positively affect their living standards. Moreover, individuals who know value of leisure time take place in average happiness level and they have higher life satisfaction (Caner, 2015). According to Selim (2008), individuals who think religion, family, and friends are important are happier, however those who think politics and work are important are less happy (Selim, 2008).

When we evaluate the impact of social capital as trust, there is a positive relationship between trust and happiness and life satisfaction. Of course, this is an expected result. Because if there is no feeling of trust with people in the environment, life will be more difficult. This is a necessary inference for every aspect of life. Trust for empowering institutions has a negative relationship with life satisfaction for male. The impartiality of the press and trade unions in Turkey is a controversial issue. Trust to armed forces positively affects happiness and life satisfaction for both sexes. Trust to political institutions has a positive impact on men in life satisfaction. When we evaluate the all sample, there is a positive effect of trust on the probability of being very happy. There are common judgments in the literature for the impact of trust on happiness and life satisfaction. People who trust others are happier and have higher life satisfaction than those who do not trust others (Caner, 2015; Ekici and Koydemir, 2013)



**Table 14:** Determinants of happiness (the probability of being very happy), 2010-2014

<b>VARIABLES</b>	<b>ALL</b>	<b>MALE</b>	<b>FEMALE</b>
<b>Age</b>	-0.013 (0.026)	-0.042 (0.040)	0.006 (0.037)
<b>Age squared</b>	0.0001 (0.0002)	0.0004 (0.0004)	-0.00005 (0.0004)
<b>Gender</b>	0.176 (0.152)		
<b>Type of employment</b>			
Student	0.383 (0.326)	0.481 (0.427)	0.475 (0.562)
Housewife	0.579* (0.300)		0.489 (0.484)
Retired	0.305 (0.335)	0.373 (0.462)	0.734 (0.599)
Part-time	0.459 (0.323)	0.382 (0.400)	0.746 (0.590)
Full-time	0.455* (0.267)	0.531* (0.331)	0.515 (0.499)
Self-employed	0.525* (0.316)	0.710* (0.376)	-0.378 (0.734)
<b>Education</b>			
Completed (compulsory) elementary school	0.722** (0.287)	1.021** (0.519)	0.549* (0.349)
Incomplete secondary school	0.987** (0.418)	1.727*** (0.656)	0.362 (0.598)
Complete secondary school	0.567* (0.331)	0.981* (0.562)	0.296 (0.436)
Incomplete secondary: university-preparatory type	0.445 (0.417)	0.577 (0.669)	0.371 (0.567)
Complete secondary: university-preparatory type	0.659** (0.306)	0.835* (0.533)	0.654* (0.387)
Some university without degree	0.710* (0.409)	0.504 (0.645)	1.025* (0.584)
University with degree	0.811** (0.329)	1.209** (0.550)	0.506 (0.438)
<b>Number of children</b>			
1	-0.155 (0.213)	-0.170 (0.323)	-0.183 (0.294)

	2	-0.057 (0.213)	0.291 (0.326)	-0.300 (0.290)
	3+	0.141 (0.229)	0.204 (0.346)	0.118 (0.317)
<b>Marital status</b>				
	Divorced, Separated, Widowed	-0.558** (0.230)	-0.551 (0.427)	-0.660** (0.288)
	Single/Never Married	-0.334* (0.213)	-0.091 (0.312)	-0.643** (0.319)
<b>Income step</b>				
	2	0.926* (0.557)	1.629** (0.785)	-0.143 (0.857)
	3	0.560 (0.496)	0.952 (0.674)	-0.207 (0.785)
	4	0.354 (0.479)	0.925 (0.644)	-0.546 (0.764)
	5	0.550 (0.473)	1.043* (0.635)	-0.276 (0.757)
	6	0.646 (0.475)	1.032* (0.632)	-0.045 (0.765)
	7	0.936** (0.473)	1.738*** (0.633)	-0.070 (0.760)
	8	1.163** (0.482)	1.744*** (0.643)	0.313 (0.777)
	9	1.390*** (0.509)	2.023*** (0.704)	0.593 (0.800)
	10	2.213*** (0.836)	3.263** (1.273)	0.440 (1.225)
	<b>Importance of family</b>	0.669*** (0.235)	0.736*** (0.276)	0.124 (0.481)
	<b>Importance of friends</b>	-0.054 (0.105)	0.042 (0.154)	-0.179 (0.150)
	<b>Importance of leisure</b>	0.195** (0.0803)	0.233** (0.117)	0.141 (0.115)
	<b>Importance of politics</b>	-0.026 (0.059)	-0.087 (0.085)	-0.0002 (0.087)
	<b>Importance of work</b>	-0.021 (0.071)	0.161 (0.117)	-0.104 (0.093)
	<b>Importance of religion</b>	0.397*** (0.082)	0.409*** (0.120)	0.348*** (0.119)
	<b>Trust to others</b>	0.358** (0.163)	0.443** (0.220)	0.109 (0.257)

<b>Trust to empowering institutions</b>	-0.100 (0.111)	-0.042 (0.160)	-0.148 (0.162)
<b>Trust to armed forces</b>	0.368** (0.162)	0.165 (0.226)	0.685*** (0.244)
<b>Trust to political institutions</b>	0.229* (0.122)	0.255 (0.182)	0.176 (0.169)
<b>Constant cut1</b>	2.905** (1.179)	4.339*** (1.554)	-0.904 (2.197)
<b>Constant cut2</b>	4.485*** (1.181)	5.769*** (1.557)	0.870 (2.192)
<b>Constant cut3</b>	6.929*** (1.191)	8.412*** (1.576)	3.231 (2.196)
<b>Observations</b>	1360	688	672
<b>LR chi2</b>	146.18	117.44	67.77
<b>Prob &gt; chi2</b>	0.0000	0.0000	0.0010
<b>Log likelihood</b>	-1414.10	-686.697	-706.427
<b>Pseudo R2</b>	0.049	0.078	0.045

**Source:** The author's calculation based on World Value Survey

**Note:** Standard errors in parentheses (\*\*\*)  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ )

**Table 15:** Determinants of life satisfaction (the probability of having the highest level of life satisfaction), 2010-2014

<b>VARIABLES</b>	<b>ALL</b>	<b>MALE</b>	<b>FEMALE</b>
<b>Age</b>	-0.033 (0.024)	-0.031 (0.037)	-0.032 (0.035)
<b>Age squared</b>	0.0003 (0.0002)	0.0003 (0.0004)	0.0004 (0.0004)
<b>Gender</b>	-0.083 (0.142)		
<b>Type of employment</b>			
Student	0.359 (0.305)	0.422 (0.391)	0.291 (0.521)
Housewife	0.574** (0.284)		0.481 (0.457)
Retired	0.264 (0.311)	0.445 (0.418)	0.399 (0.551)
Part-time	0.696** (0.309)	0.714* (0.376)	0.794 (0.572)
Full-time	0.654*** (0.253)	0.719** (0.310)	0.633 (0.462)
Self-employed	0.587** (0.295)	0.670* (0.348)	0.070 (0.670)
<b>Education</b>			
Completed (compulsory) elementary school	0.106 (0.265)	0.261 (0.471)	0.0453 (0.328)
Incomplete secondary school	-0.087 (0.385)	0.020 (0.594)	-0.033 (0.556)
Complete secondary school	-0.013 (0.305)	0.388 (0.509)	-0.388 (0.403)
Incomplete secondary: university-preparatory type	0.025 (0.393)	0.116 (0.618)	-0.062 (0.542)
Complete secondary: university-preparatory type	0.117 (0.282)	0.188 (0.487)	0.116 (0.361)
Some university without degree	0.355 (0.375)	0.570 (0.582)	0.132 (0.549)
University with degree	0.011 (0.301)	0.213 (0.500)	-0.170 (0.405)
<b>Number of children</b>			
1	-0.114 (0.194)	-0.216 (0.295)	-0.106 (0.266)

	2	-0.146 (0.190)	-0.101 (0.295)	-0.185 (0.255)
	3+	0.023 (0.207)	-0.023 (0.318)	0.020 (0.282)
<b>Marital status</b>				
	Divorced, Separated, Widowed	-0.121 (0.212)	-0.407 (0.397)	-0.031 (0.270)
	Single/Never Married	-0.349* (0.195)	-0.388 (0.281)	-0.377 (0.296)
<b>Income step</b>				
	2	1.114** (0.548)	1.149* (0.691)	0.933 (0.965)
	3	0.806* (0.500)	0.862 (0.641)	0.787 (0.877)
	4	0.609 (0.480)	0.667 (0.603)	0.609 (0.857)
	5	0.770* (0.476)	0.796 (0.594)	0.735 (0.854)
	6	1.030** (0.476)	0.975* (0.591)	1.138 (0.855)
	7	1.392*** (0.476)	1.351** (0.590)	1.525* (0.857)
	8	1.803*** (0.482)	1.763*** (0.599)	1.956** (0.866)
	9	2.051*** (0.502)	2.071*** (0.647)	2.150** (0.878)
	10	2.187*** (0.712)	3.037*** (0.913)	0.893 (1.145)
	<b>Importance of family</b>	0.376* (0.200)	0.326 (0.245)	0.367 (0.393)
	<b>Importance of friends</b>	-0.043 (0.096)	0.031 (0.137)	-0.130 (0.139)
	<b>Importance of leisure</b>	0.233*** (0.072)	0.227** (0.104)	0.247** (0.105)
	<b>Importance of politics</b>	-0.034 (0.054)	-0.152* (0.078)	0.094 (0.082)
	<b>Importance of work</b>	0.027 (0.063)	0.154 (0.101)	-0.074 (0.086)
	<b>Importance of religion</b>	0.212*** (0.074)	0.191* (0.104)	0.192* (0.109)
	<b>Trust to others</b>	0.255* (0.147)	0.236 (0.195)	0.236 (0.239)

<b>Trust to empowering institutions</b>	-0.095 (0.102)	-0.240* (0.144)	0.049 (0.148)
<b>Trust to armed forces</b>	0.306** (0.146)	0.214 (0.200)	0.471** (0.225)
<b>Trust to political institutions</b>	0.213* (0.111)	0.289* (0.162)	0.135 (0.158)
<b>Constant cut1</b>	0.006 (1.055)	0.209 (1.390)	-0.294 (1.934)
<b>Constant cut2</b>	0.575 (1.048)	0.769 (1.379)	0.285 (1.926)
<b>Constant cut3</b>	1.213 (1.044)	1.342 (1.374)	0.995 (1.920)
<b>Constant cut4</b>	1.711 (1.043)	1.942 (1.373)	1.385 (1.919)
<b>Constant cut5</b>	2.512** (1.045)	2.693* (1.374)	2.257 (1.922)
<b>Constant cut6</b>	3.140*** (1.046)	3.351** (1.376)	2.865 (1.924)
<b>Constant cut7</b>	4.056*** (1.048)	4.325*** (1.379)	3.743* (1.926)
<b>Constant cut8</b>	5.116*** (1.050)	5.407*** (1.383)	4.805** (1.929)
<b>Constant cut9</b>	6.203*** (1.053)	6.424*** (1.387)	5.979*** (1.933)
<b>Observations</b>	1361	689	672
LR chi2	165.93	100.09	85.41
Prob > chi2	0.0000	0.0000	0.0000
Log likelihood	-2654.28	-1342.725	-1297.416
Pseudo R2	0.030	0.035	0.031

**Source:** The author's calculation based on World Value Survey

**Note:** Standard errors in parentheses (\*\*\*)  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ )

## CONCLUSION

This research investigates the relation of subjective well-being as happiness, and life satisfaction with social capital as trust and confidence in institutions for Turkey using a representative survey, WVS for 1990, 1996, 2001, 2007 and 2011 years. In the study, the data obtained from WVS is analyzed in two ways for five waves: 1989-1993, 1994-1998, 1999-2004, 2005-2009 and 2010-2014.

In the first analysis, the data were tabulated and the changes in the data within each wave are interpreted by gender. The variables used in this section are happiness, life satisfaction, subjective state of health, financial satisfaction and trust. The results of the first analysis are as follows: life satisfaction and happiness levels of women are higher than men, medium financial satisfaction values are the same for both men and women, confidence in institutions for male is higher than that of women and women trust less than men and men's subjective health status is better than that of women.

In the second analysis, the impact of social capital in form of trust and confidence in institutions on subjective well-being by controlling for demographic factors like age, education, employment status and income.

The results obtained here are as follows: age is insignificant, gender has no significant impact on life satisfaction and happiness, there are positive relationship between employed, income, being married, importance of family, importance of leisure time, importance of religion, trust to arm forced, trust to political institution and both happiness and life satisfaction, and general trust has a positive effect on happiness.

First of all, it should be noted that the negative side of the data used in the study is to make comments for a single period. In other words, instead of interpreting the relationships within the variables for a single period, comparing them for several years would have been more accurate. The reason for taking a single period is that the respondents are not the same for each period. This would create distrust in comparing the responses from different people for different years. Moreover, the previous studies argued in the literature do not evaluate the determinants of subjective well-being for the last survey wave of WVS.

Interpreting the momentary changing concepts of happiness is a risky task, but we have tried to make as much general judgments as possible. The same is true for life satisfaction, but it is more stable than happiness. The results of the study would be pointless to assess independently of the properties owned as a result of Turkey. Such as its general structure, living conditions and economy. By interpreting the results, we can make a few recommendations in the fields of education, policy and employment to make work-specific assumptions. It is a deficiency for the education system that women attend only a few levels in the education system. Based on the assumption that educated women contribute more to the economy, it is a mistake to consider being a housewife as if it were women's fate. The finding of education to be not important for life satisfaction of the Turkish people is attributable to the fact that the importance of education is not emphasized enough. Education should be free of charge and should be one of the necessities of easily accessible life for all.

As confidence in policy makers increases, happiness and life satisfaction levels increase, while the importance of politics have a negative impact on life satisfaction. Regarding Turkish people's view of politics, he/she is aware of the necessity of the system, but accepts it without question when he/she starts to question the perception of politics as negative. It is an interesting finding that this awareness is only among men. More opportunities should be offered to women in all areas of society. For positive policy development, politics must be open, transparent and equal for all.

In terms of employment, households above a certain income level are happy and satisfied with their lives. Of course, we need to think about the other part because their contribution to the economy is undeniable. Wage policy can be adapted to today's conditions and create life satisfaction for all levels of income. Trust is one of the main factors underlying all relationships. A fair justice system is needed to increase the confidence in institutions.

The importance of leisure time for the Turkish people has a positive impact on life satisfaction. But since the consumption of leisure-time in the consumption age does not contribute to the development of the individual, changes can be applied to



make this situation positive for the country. For example, free cinema, exhibitions and other cultural activities can be configured for the students.



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