REGIONAL DETERMINANTS AND GEOGRAPHICAL DISTRIBUTION OF SOCIAL CAPITAL IN TURKEY

A Thesis Submitted to
the Graduate School of Engineering and Sciences
of İzmir Institute of Technology
in Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE

in City Planning

by
Hüseyin Mert ARSLAN

July 2018
İZMİR

We approve the thesis of **Hüseyin Mert ARSLAN**

Examining Committee Members:

Assoc. Prof. Dr. Hasan Engin DURAN
Department of City and Regional Planning, İzmir Institute of Technology

Assoc. Prof. Dr. Adile ARSLAN AVAR
Department of City and Regional Planning, İzmir Institute of Technology

Assoc. Prof. Dr. Arife KARADAĞ
Department of Geography, Ege University

05 July 2018

Assoc. Prof. Dr. Hasan Engin DURAN
Supervisor, Department of City and Regional Planning, İzmir Institute of Technology

Assoc. Prof. Dr. Fatma ŞENOL
Head of the Department of City and Regional Planning

Prof. Dr. Aysun SOFUOĞLU
Dean of the Graduate School of Engineering and Sciences

ACKNOWLEDGMENTS

I would like to most grateful to my supervisor, Assoc. Prof. Dr. Hasan Engin DURAN; my deepest feelings for his success in academic life, for his knowledge and support in all matters, for his progress, guidance, encouragement, intellectual accumulation and humble personality.

I would like to thank you very much for my family and friends, who are in charge of my thesis at every stage and provide their spiritual support.

ABSTRACT

REGIONAL DETERMINANTS AND GEOGRAPHICAL DISTRIBUTION OF SOCIAL CAPITAL IN TURKEY

Purpose of the present thesis is to improve the shortcomings of the empirical literature on regional social capital and investigate the following three less addressed research questions; i. Do regional social capital and economic growth have an endogenous circular relationship? ii. What are the determinants behind cross-regional variation in social capital? iii. Are there any significant spatial spillovers of social capital across neighboring regions? Empirically, the social capital (for 81 Turkish provinces in 2015) was measured by using three indicators; social trust, norms, and participation. In terms of methodology, descriptive statistics, illustrative maps, Kernel density estimates, Jarque-Bera Normality tests, cross-sectional OLS, 3SLS and Spatial Error Model (SEM) models were adopted. As an outcome, the results of the thesis can be summarized into four groups. First, regional social capital is heterogeneously distributed across regions, particularly in social participation. Second, having estimated the models, it is understood that social capital has no significant impact on economic growth but the growth induces significantly the generation of social capital (only in types of social norms). This represents the first result of reserve causality that has not yet been considered by the literature. Third, cross-regional variation in social capital is best explained by robustly significant economic and demographic determinants. Hence, a typical province that has high social capital can be defined as an Anatolian province with a relatively high-income level, low unemployment and poverty rate, big households and older age profile. Fourth, social capital is shown to emerge in spatially correlated clusters.

ÖZET

TÜRKİYE'DE SOSYAL SERMAYENİN BÖLGESEL BELİRLEYİCİLERİ VE COĞRAFİ DAĞILIMI

Bu tezin amacı, bölgesel sosyal sermaye üzerine ampirik literatürün eksikliklerini iyileştirmek ve aşağıda belirtilen üç araştırma sorusunu yanıtlamaktadır; i. Bölgesel sosyal sermaye ve ekonomik büyüme arasında içsel ve döngüsel ilişki var mıdır?, ii. Sosyal sermayedeki bölgesel farklılıkların ardındaki belirleyiciler nelerdir?, iii. Komşu bölgeler arasında sosyal sermayenin kayda değer bir yayılma alanı var mıdır? Ampirik olarak, sosyal sermaye (2015 yılında 81 il için) üç gösterge kullanılarak ölçülmüştür; sosyal güven, normlar ve katılım. Yöntem açısından tanımlayıcı istatistikler, açıklayıcı haritalar, Kernel yoğunluk tahminleri, Jarque-Bera normallik testleri, yatay-kesit OLS, 3SLS ve Mekansal Hata Modeli (SEM) modelleri kullanılmıştır. Sonuç olarak, tezin sonuçları dört grupta özetlenebilir. Birincisi, bölgesel sosyal sermaye bölgelere, özellikle de sosyal katılımda heterojen bir şekilde dağılmıştır. İkincisi, modelleri tahmin ederek, sosyal sermayenin ekonomik büyüme üzerinde önemli bir etkisi olmadığı, ancak büyümenin sosyal sermayenin (sadece sosyal normların türünde) oluşumunu önemli ölçüde artırdığı anlaşılmaktadır. Bu, henüz literatür tarafından dikkate alınmamış olan bir ters nedensellik sonucunu temsil etmektedir. Üçüncüsü, sosyal sermayedeki bölgesel farklılıklar, güçlü ekonomik ve demografik belirleyiciler tarafından en iyi şekilde açıklanabilir. Dolayısıyla, yüksek sosyal sermayeye sahip tipik bir il, nispeten yüksek gelir seviyesi, düşük işsizlik oranı, yoksulluk oranı, büyük hanehalkları ve daha yaşlı profile sahip bir Anadolu ili olarak tanımlanabilir. Dördüncüsü, sosyal sermayenin mekansal olarak ilintili kümelenmelerde ortaya çıktığı gösterilmiştir.

TABLE OF CONTENTS

LIST OF FIGURES.....viii

LIST OF TABLES……..ix

LIST OF ABBREVIATIONS……x

CHAPTER 1. INTRODUCTION……1

1.1. Problem Definition and Contribution to Literature……1

1.2. Aim of the Study……...3

1.3. Methodology……3

1.4. Organization of Thesis……4

CHAPTER 2. CONCEPT OF SOCIAL CAPITAL AND THEORETICAL FRAMEWORK.....5

2.1. Social Capital Concept……5

2.2. History of Social Capital……..7

2.3. Definition of Social Capital……..8

2.3.1. Pierre Bourdieu and Social Capital……...13

2.3.2. James Coleman and Social Capital……..14

2.3.3. Robert Putnam and Social Capital……16

2.3.4. Francis Fukuyama and Social Capital……...17

2.4. The Importance of Social Capital……17

2.5. The Components of Social Capital……20

2.5.1. Trust and Social Capital……20

2.5.2. Norms and Social Capital……21

2.5.3. Participation and Social Capital……23

2.6. The Relationship between Social Capital and Economic Growth…...24
2.7. Positive Impact of Social Capital on Economic Growth……27
2.8. Negative Impact of Social Capital on Economic Growth……30
2.9. Measurement of Social Capital……...32
2.10. Determinants of Social Capital…….37
2.11. Studies on Social Capital……..38

CHAPTER 3. REGIONAL ECONOMIC GROWTH THEORIES……...51

3.1. Export-Based Theories….....51
3.2. Cumulative Causation…….……52
3.3. Neo-Classical Growth…….55
3.4. Endogenous Growth Theories……...…….56
3.4.1. Romer's Model…….56
3.4.2. Lucas' Model……...…57
3.4.3. Grossman and Helpman's Model…….57
3.5. New Economic Geography…….……58
3.5.1. Center-Periphery Model……...60
3.5.2. Region-City Model……...60
3.5.3. International Trade Model……61
3.6. Growth-Pole Theory……...61

CHAPTER 4. EMPIRICAL ANALYSIS AND RESULTS……..63

4.1. Descriptive and Exploratory Analysis……64
4.2. Econometric Model……67
4.3. Results……...…….77

CHAPTER 5. CONCLUSIONS……88

REFERENCES……...……..….90

LIST OF FIGURES

Figure **Page**

Figure 2.1. Putnam's Social Capital Summary……..16

Figure 2.2. Structure of Social Capital……...……19

Figure 4.1. Kernel Probability Density Estimations……...……65

Figure 4.2. Geographical Distribution of Social Capital Variables…….……...66

Figure 4.3. Geographical Distribution of Growth, 2015……68

Figure 4.4. Geographical Distribution of Bachelor Degree, 2015….……69

Figure 4.5. Geographical Distribution of Electricity, 2015……69

Figure 4.6. Geographical Distribution of Life Expectancy, 2015…….…….70

Figure 4.7. Geographical Distribution of Unemployment Rate, 2015……....70

Figure 4.8. Geographical Distribution of Income, 2015……71

Figure 4.9. Geographical Distribution of Net Migration Rate, 2015…….……71

Figure 4.10. Geographical Distribution of Poverty, 2015……..72

Figure 4.11. Geographical Distribution of Young Population, 2015…….……72

Figure 4.12. Geographical Distribution of Income Distribution, 2015…….……..73

Figure 4.13. Geographical Distribution of Population, 2015.....73

Figure 4.14. Geographical Distribution of Population Density, 2015……74

Figure 4.15. Geographical Distribution of Health Services, 2015…….……74

Figure 4.16. Geographical Distribution of Quality of Education, 2015……75

Figure 4.17. Geographical Distribution of Employment Rate, 2015……..……75

Figure 4.18. Geographical Distribution of Household-size, 2015…….……76

LIST OF TABLES

Table **Page**

Table 2.1. Comparison of Social Capital……....10

Table 2.2. Definition of Social Capital……..11

Table 2.3. International Organization and Social Capital……..13

Table 2.4. The Classification of Bourdieu's Capital Units…….14

Table 2.5. Indicators of Social Capital……..……35

Table 3.1. Forces Affecting Geographical Concentration……..59

Table 4.1. List of Variables used to Construct Social Capital Variables…….……64

Table 4.2. Descriptive Statistics of Social Capital Variables…….……65

Table 4.3. Definition of Variables used in Regression Analysis……68

Table 4.4. OLS Results for Trust Variable……79

Table 4.5. 3SLS Results for Trust Variable……80

Table 4.6. SEM Results for Trust Variable……81

Table 4.7. OLS Results for Norms Variable……...82

Table 4.8. 3SLS Results for Norms Variable…….……83

Table 4.9. SEM Results for Norms Variable…….…….84

Table 4.10. OLS Results for Participation Variable…….……..85

Table 4.11. 3SLS Results for Participation Variable……..86

Table 4.12. SEM Results for Participation Variable.....…...87

LIST OF ABBREVIATIONS

CC	Cumulative Causation
EVS	European Values Survey
GDP	Gross Domestic Product
NC	Neo-Classical
NEG	New Economic Geography
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares
PCA	Principal Component Analysis
R&D	Research and Development
SC	Social Capital
SEM	Spatial Error Model
TUIK	Turkish Statistical Institute
WVS	World Values Survey

CHAPTER 1

INTRODUCTION

Social capital is an important concept for all social sciences, especially for sociology and economy. The concept of social capital, which is a major element for economic development in today's society, has become one of the subjects of intensely interesting research topics in the academy. Social capital has become significant with the studies of many researchers working on subjects like economic development and social relations, starting with Hanifan. It was originally used by researchers to explain the differences in development between regions, but later it was considered as an indispensable element in achieving economic development by organizations such as the World Bank and the OECD. Different definitions have been made by some researchers and institutions about social capital. However, the emphasis is not on the definition itself but on what it really means. The concept of social capital is based on existing trust, social norms, and participation in a society.

It is stated that the concept of social capital is crucial for developing countries. It is seen that the social capital levels of the developed countries are very high and the economic development levels are higher. For this reason, it is emphasized that the countries that are in the stage of economic development should increase their social capital besides their physical and human capital stock. It is not only physical and human capital that can realize economic development in a country. It is seen that economic growth is an important influence and supportive factor of social capital with other factors.

1.1. Problem Definition and Contribution to Literature

There has been a growing body of literature on social capital and its economic consequences. It represents rather a new research subject that even the definition of social capital is far from a clear-cut. So far, scholars tend to conceptualize this phenomenon in three ways; by referring to concepts of social participation (Putnam, 1993), social trust (Fukuyama, 1998) and norms (Coleman, 1998). Therefore, it can be inferred that societies that exhibit greater participation to formal and informal networks, societies that construct

more trust ties and commit more to the social norms are likely to have the higher level of social capital.

The existing studies on social capital have largely analyzed its impact on economic growth and productivity.

In theoretical terms, the vast majority of the views point to a positive impact. The main argument is that presence of well-structured social capital in a society is likely to induce coordination among individuals, institutional quality, a flow of knowledge, labor mobility, participation to education, savings, innovative investments, adoption to new technologies and entrepreneurship while it decreases transaction costs, bureaucratic difficulties and information asymmetries. Therefore, social capital is expected to contribute, in this way, to an increase in productivity and economic growth (Akçomak and Bas Ter Weel, 2009; Putnam, 1993; Palomino, 2016, Whiteley, 2000; Forte et. al, 2015; Bjørnskov, 2009; Coleman, 1988; Kitson and Tuh, 2005; Dasgupta, 2005).

The negative impact of social capital on economic growth is, in contrast, much less emphasized. Nevertheless, the scholar of this stream point to the inefficiencies that might be created by social capital. Such that if informal networks are well developed in a country, firms will often use these networks (such as friendship/family ties) during the procurement and recruitment processes (such as hiring a friend in a company rather than a more qualified person). Thus, this will bring inefficient economic outcomes (Callois and Aubert, 2005; Fukuyama, 2000; Sabatini, 2005).

On empirical grounds, many studies have findings in favor of the positive impact. Some examples of these studies are Peiro-Palomino (2015) who analyzed this issue for Spanish provinces, Forte et. al (2015) for 85 EU Nuts-I regions, Dinda (2008) for India and Akçomak and Ter Weel (2009) for 102 EU regions. The negative impact of social capital, on the other hand, is much less reported. Some exceptions are Schneider, Plumper and Bauman (2000), Helliwell (1996) and Rothe and Schüler (2006).

However, the results in the literature, are far from a consensus. This should attract the efforts of researchers into this field. The relationship between social capital and economic growth (or vice versa) becomes, therefore, politically a crucial matter. Moreover, this kind of analysis has very rarely been conducted for developing countries. Hence, one needs to clearly analyze such a relationship in terms of the direction, magnitude, and its political implications.

Empirical literature, in this field, has several shortcomings. First, perhaps most importantly, in almost all existing studies, social capital is assumed to be exogenous to

the economic growth. However, it is unlikely to be exogenous in nature. The rationale behind this view is that as social capital arises in a society, this might bring economic growth through the discussed channels above. However, a reverse causality might be present as well. Hence, economic growth might induce the social capital since the higher level of income make individuals live in better conditions and participate more easily to social networks, norms and generate trustworthy relationships. In short, there might be an endogenously occurring circular relationship between social capital and economic growth. This has, however, never been tested in the existing literature. We aim at doing this by using simultaneous equations and three stage least squares algorithm.

Second, despite the main determinants of social capital have been analyzed well in the literature (Lee et al. 2011; Neira et al. 2009), many of the studies are either at the national or international level. Regional determinants and cross-regional variation of social capital have received far little attention which we target.

Third, spatial spillover of social capital among neighboring regions has not yet been taken much into consideration in the existing econometric models in this field. Failing to do so might indeed create serious bias in the estimations. Therefore, we aim at filling this gap as well.

Fourth, this study, to the best of our knowledge, represents the first attempt to measure and model the social capital at the regional level in Turkey.

1.2. Aim of the Study

Hence, the aim of the current paper is to investigate the following three research questions for 81 Turkish provinces in 2015:

i. Do regional social capital and economic growth have an endogenous circular relationship?
ii. What are the determinants behind cross-regional variation in social capital?
iii. Are there any significant spatial spillovers of social capital across neighboring regions?

1.3. Methodology

In terms of methodology, we use simultaneous equations and 3SLS model to investigate the first and second research questions and Spatial Error Model (SEM) to

tackle the third one. Apart from these, we use summary statistics, illustrative maps, and Kernel density estimations for descriptive and exploratory analysis.

In terms of spatial units, we concentrate on Nuts-III level regions in 2015. We obtain most of our datasets from TUIK (TURKSTAT).

In terms of software and programs, we use a range of tools like EVIEWS 9 SV, R 3.3. packages, and Excel.

1.4. Organization of Thesis

The rest of the thesis is organized in the following way. In the following chapter (2), we focus on the general literature on the social capital concept; the history, definition, structure, components, its relationship with growth and determinants of social capital. Chapter 3 is instead devoted to reviewing the regional economic growth theories. Chapter 4 explains the pursued empirical analysis and results. Finally, we conclude our study in chapter 5.

CHAPTER 2

CONCEPT OF SOCIAL CAPITAL AND THEORETICAL FRAMEWORK

In this part of the study, the history of the concept of social capital is examined and the conceptual foundation is dealt with in detail.

2.1. Social Capital Concept

The concept of social capital is an increasingly important in the field of social scientific research. Especially since the 1990s, there has been an increase in the literature on the concept of social capital. Social scientists can hardly define this concept, which is of interest in different forms.

Despite its popular use, the concept of social capital, which is of great interest to many social sciences, is not capable of a common definition due to its interdisciplinary nature (Manski, 2000, Bankston and Zhou, 2002, Beugelsdijk and Schaik, 2005). Therefore, there is no single definition of social capital which is an important concept (Routledge and von Amsberg, 2003).

Especially in recent years, economists have been emphasizing the growing contribution of the concept to developing policy options, with the idea that better social capital contributes to the economic performance. In this regard, social capital has become an interesting concept for both central and local governments.

Social capital is generally defined on the basis of the concepts of trust, group membership, norms and common activity that enable people to reach and decide on power and resources and to implement policy (Grootaert, 1998). Social capital is a fundamental value of social networks and emphasis on relationships and values that are seen as important factors in explaining social and individual structures and behaviors (Field, 2008).

Social capital is an important concept in terms of economic development, as well as social and cultural developments, which make it possible to work together to mobilize

common action, cooperation and solidarity, depending on the sense of trust, unity, and solidarity among people.

Social capital can be referred to as a phenomenon that develops from the very days of human history, when we think of it in a broad sense, that the human need another person. Although the connection between people is not currently used in this sense, the history of the concept of social capital can be based on the very old. Since human beings have many social, economic or political characteristics at every stage of their life, they have become a relationship with these characteristics. This constitutes a human's social capital.

The concept of social capital, which has been widely used in recent years, has an unlimited field of research such as social, economic, family, group memberships, voluntary organizations, democracy, organization, moral values apart from tangible assets. This has enabled different disciplines to form different researches, variables, definitions about social capital and enrich the concept.

It is an undeniable fact that the economy is a social science and its interest in social problems are ignored because the discipline is not sufficiently interested in the social aspect. However, this bond has been emphasized in recent years. Because the factors of production are insufficient to fully explain economic growth and development. Therefore, the concept of social capital based on social trust, norms and social relations have entered into the science of economics as a new factor of production. Despite being close to the human capital, social capital is a source of wealth that is invisible to the development and development of a nation.

The concept of social capital has become a concept attracted by many disciplines such as sociology, economics, and political science. While social capital theory is a new focus of attention, individual and group activities, experiences, institutions/associations and communication/interaction between them draw attention to social capital. The concept of social capital has also attracted interest from organizations operating on a global scale. Organizations such as the World Bank and the OECD also contributed to the definition of social capital by conducting studies that developed its components.

The concept of social capital was sought by sociologists, political scientists and economists in their search for answers to their own questions. Social capital has been the source of resources for family research, youth behavior problems, school and education, community/society life, democracy and governance, economic development and the solution of problems in mass movements (KOSGEB, 2005). According to the central

thesis of social capital theory, John Field (2003) expressed social capital as "relations are important". The main idea here is emphasized that social networks are a valuable element (Unni, 2014).

As a necessity for being a social being, the person is in contact with and cooperates with other individuals in the society. The main factor contributing to this cooperation is the sharing of common values among individuals through a network of networks connecting people. These networks can be regarded as a kind of social capital formation because they are a resource. The concept of social capital is considered as a culture of doing business together with another expression and it is accepted that the societies lacking this culture are going to have low production, low productivity, corruption, wasting and crime rates in the economic field.

Social capital, one of the most important economic and social concepts in recent years, is generally regarded as a factor directly related to the successes of countries in economic, political and social spheres. Particularly in recent years, the rapid increase in the workings on social capital has enabled new alternative policies to be developed so that the economic and social problems of societies can be solved more easily. Because, it is stated that the ability of the countries to efficiently use the material production factors they have is directly proportional to the social capital accumulation to a great extent (Karagül and Dündar, 2006). Social capital can be considered as an important tool in the development of social policies, implementation, and social integration. With this feature, social capital serves as an important link which keeps the people living in the society together. The basic rationale for this connection can be explained by different social phenomena and practices, including normality, networks, and various beliefs. This bond, which holds society together, becomes a meaningful and strong bond with the social capital that is antagonized at every stage of the relations between people.

2.2. History of Social Capital

The concept of social capital is rather a new concept which is formed by the combination of social values of social trust and economic words and capital values (Karagül and Dündar, 2006). With the social concept being a concept that began to be used since the 1980s, the history of the concept is based on the old. The first studies on social capital started in sociology. Later on, a number of different disciplines, especially economists, have been consciously used and studied.

While social capital is being evaluated as a new method and technique for solving social problems, the elements that make up social capital are not new. Many scientists such as Adam Smith, Karl Marx, Emile Durkheim, Thorstein Veblen and Max Weber, who have a very important place in the literature, have contributed to economic growth and development and social and cultural factors and social capital has become very popular (Altay, 2007). When the historical and theoretical development of the concept of social capital is examined, it is seen that Bourdieu, Coleman, Putnam, Fukuyama, Portes, Woolcock and many other researchers contributed greatly to the social sphere (Karaçay, 2008). Today it has become an important concept not only in academic fields but also in policy practices international organizations such as World Bank and OECD. The efforts of these institutions to understand are leading to many studies in the literature.

The concept of social capital was first used in 1916 by Lyda Hanifan (1916) in his study of education. Hanifan has conceptualized social capital as "a concrete value among the people and the constituents of the society that they emerge from the good intentions, friendship and social relations of the people who emerge from their daily lives."

The social capital concept which has been used first time by economist Glenn Loury (1977) social capital concepts used in the 1970s, became prominent with Pierre Bourdieu's (1986) sociology James Coleman's (1988) education sociology and Robert Putnam's (2000) use in policy. Robert Putnam's famous work "Bowling Alone: The Collapse and Revival of the American Community″ played an important role in increasing the popularity of the concept of social capital (Putnam, 2000). Putnam notes that the understanding of the society of the wealthy Americans is gradually disappearing.

The concept of social capital has come to the fore in a wide range of fields ranging from political participation to institutional performance, from health to corruption, from the effectiveness of public services to the economic development of countries in almost all social sciences research.

2.3. Definition of Social Capital

Social capital; is a multidisciplinary concept aimed at revealing the effects of the social relations of the economic activities that countries have realized. This concept has

been studied for a long time by social scientists in terms of the importance of social development, with increasing importance in recent years.

In addition to sociology and economics, it has also been the subject of studies in the field of political science.

Since the concept of social capital is defined by different disciplines, a clear definition of the concept cannot be made. This has led to the emergence of different variables/determinants to be addressed and defined in a common concept. That is why the concept is enriched. However, different definitions have been made about social capital. These definitions are not only about what social capital is, but also about its function. Thus, social capital can be defined as a relational concept that means not the person or the group but the characteristics of the social organization, such as trust, norms, and networks, which can facilitate coordinated actions and improve the effectiveness of the community (Paraskevopoulos, 2007). On the economic side, social capital, trust-based relations between individuals and institutions are accepted as economic activity and production reflection (Karagül and Masca, 2005). Social structures and networks that are necessary for the social action to be carried out, in general terms, of social capital; the normative values (trust and relationships) in these structures and the consequences of collective actions through these constructs. At the core of these definitions, there are concepts such as trust, cooperation, social solidarity, communication networks, voluntary organizations, and the relationship of these concepts to one another.

Bourdieu, Coleman, and Putnam are at the forefront of the work of social capital in the following years. The authors' views on social capital are given in table 2.1 below.

The table does not have a common definition of social capital. Parallel objectives and analyzes have been put forward. The most important reason for having many recognitions is that social sciences is an inclusive nature.

In the perspective of Coleman, social capital is described as a public good (Fine and Lapavitsas, 2004). Social capital is described as social relationships that provide opportunities for people to move more than individuals can do alone. The most important factor that this concept wants to reveal is the relations between people and its socio-economic effects. According to another definition, it is an emerging economic phenomenon with a social content that aims to make social relations affect the economic development of countries. In a narrow sense, it is explained as a trust-based communication between at least two individuals, while in the broad sense it is explained as a trust, norm, and communication network that promotes productivity by coordinating

between individuals, non-governmental organizations and public institutions that have made social building (Karagül and Masca, 2005).

Table 2.1. Comparison of Social Capital
(Source: Akçay, 2005)

	Definition	Aim	Analysis
Bourdieu	Resources that provide access to group goods	To secure economic capital	Individuals in class competition
Coleman	Aspects of social structure that individuals can use to reach their goals	To secure human capital	Family and individual in society
Putnam	Trust, norms and relationship networks that facilitate coexistence for common benefit	To secure effective democracy	Regions in the country

According to Fukuyama (2000), the concept of social capital is defined as the norms association that supports harmony and co-operation between individuals and that sincerity prevails. Fukuyama argues that social capital cannot be created by the people acting alone or in the enterprise.

According to Lin (1999), social capital includes the idea of investment in social relations with the expected effect. According to another definition, social capital contributes to economic and social development through institutions, associations, attitudes and values in the society, actions based on trust between people.

Social capital is defined as a direct support to developing institutions (Grootaert, 1998). Acquisition of social capital based on the dominance of trust in societies necessitates internalization of important concepts such as loyalty and honesty as well as moral norms in society become a habit, and requires inter-individual linkage. The social sphere is not achieved as a result of individual steps in society. After giving a simple definition of the concept of social capital, it is possible to list the definitions of various thinkers and organizations about this concept in the form of a table as follows (Table 2.2).

Table 2.2. Definition of Social Capital
(Source: Adler and Kwon, 2002)

Authors	Year	Definition of Social Capital
Bourdieu	1986	The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition.
Baker	1990	A resources that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors.
Coleman	1990	Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure.
Boxman et al.	1991	The number of people who can be expected to provide support and the resources those people have at their disposal.
Bourdieu and Wacquant	1992	The sum of the resources, actual or virtual that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.
Loury	1992	Naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace… an asset which may be as significant as financial bequest in accounting for the maintenance of inequality in our society.
Schiff	1992	The set of elements of the social structure that affects relations among people and are inputs or arguments of the production and/or utility function.
Portes and Sensenbrenner	1993	Those expectations for action within a collectivity that affect the economic goals and goal' seeking behavior of its members, even if these expectations are not oriented toward the economic sphere.
Putnam	1995	Features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit.

(Cont. on next page)

Table 2.2. (Cont.)

Belliveau et. al.	1996	An individual's personal network and elite institutional affiliations.
Thomas	1996	Those voluntary means and processes developed within civil society which promote development for the collective whole.
Brehm and Rahn	1997	The web of cooperative relationships between citizens that facilitate resolution of collective action problems.
Burt	1997	Friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital.
Fukuyama	1997	The ability of people to work together for common purposes in groups and organizations. Social capital can be defined simply as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them.
Inglehart	1997	A culture of trust and tolerance, in which extensive networks of voluntary associations emerge.
Pennar	1997	The web of social relationships that influences individual behavior and thereby affects economic growth.
Nahapiet and Ghoshal	1998	The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network.
Portes	1998	The ability of actors to secure benefits by virtue of membership in social networks or other social structures.
Woolcock	1998	The information, trust and norms of reciprocity inhering in one's social networks.
Knoke	1999	The process by which social actors create and mobilize their network connections within and between organizations to gain access to other social actors' resources.

Social capital literature tends to focus on interpersonal networks (Dasgupta, 2005). Many definitions have led to confusion about the concept of social capital. The concepts used to express social capital have increased the degree of the situation. These are social energy, social soul, social ties, civic virtue, social networks, social ozone, friendships, social life, social resources, formal and informal networks. In addition, some international organizations have worked on social capital and have expressed their views at the point of explanation (Table 2.3).

As seen in the table, many scientists and organizations have developed different definitions according to their own expressions and ideas about the concept of social capital.

Table 2.3. International Organizations and Social Capital
(Source: Özcan, 2011)

International Organizations	Definition of Social Capital
ECLAC	The support of the social group is explained as the ability to mobilize the social resources found in the social networks that some people have reached.
FAO	Social solidarity refers to the co-determination of executive norms, the combination of cultural expression and social behavior.
OECD	It is expressed in terms of values and thoughts that cooperate between networks, norms and social groups.
World Bank	Norms, relationships and institutions that prove the quality and quantity of social interactions in a society are defined.

Social capital has emerged as a new economic phenomenon with social content aiming to take the effects of social life into the economic activities of the countries. From an economic point of view, social capital, trust-based relations between individuals and institutions are expressed as economic efficiency and production reflection (Karagül and Masca, 2005).

As seen in the table, many scientists and organizations have developed different definitions according to their own expressions and ideas about the concept of social capital.

Social capital has emerged as a new economic phenomenon with social content aiming to take the effects of social life into the economic activities of the countries. From an economic point of view, social capital, trust-based relations between individuals and institutions are expressed as economic efficiency and production reflection (Karagül and Masca, 2005).

2.3.1. Pierre Bourdieu and Social Capital

The first systematic modern analysis of the concept of social capital was made by Pierre Bourdieu. It is expressed in the form of all of the potential resources connected to the ongoing relationship network of institutionalized relations of the concept (Keleş, 2012).

The introduction of the social capital concept in social theory was inspired by the French sociologist Pierre Bourdieu (Fine and Lapavitsas, 2004). The work of The Form of Capital (1986), one of Bourdieu's most important works on social capital. In his

study of capital, types he explains the concept of social capital not only based on economics but also on the concept of social class. According to Bourdieu, the social sphere is regarded as all of the real and potential sources of having long-term communication networks (Field, 2008).

Claiming the existence of social classes depending on the number of different types of capital at different levels of people, Bourdieu has revealed three types of capital that are of particular relevance to the class, which are economic capital, cultural capital and social capital. Bourdieu acknowledges the fact that cultural capital is the expression of unequal academic success for children from different social groups and different groups within the social class (Field, 2008). The classification of Bourdieu's capital units is summarized in Table 2.4.

Table 2.4. The Classification of Bourdieu's Capital Units
(Source: Keleş, 2012)

The Shape of Social Capital	Basic Distinction	Main Determinant	Hierarchy Level	Indicator
Economic	Financial success or failure	Money	High	Economic status
Cultural	Recognition or mediocrity	Prestige	High	Status and education
Social	Being a member or not	Social relations and connections	Low	Membership

According to Bourdieu, relations are important and are explained as social structures established among individuals. Social communication networks are emerging as an important wealth. The phenomenon of social capital is expressed in Bourdieu as a phenomenon referring to the co-existence of current and potential sources of social actors and groups.

2.3.2. James Coleman and Social Capital

Coleman (1988) has attracted great interest from his work on social capital, and sociologist James Coleman has added value to the importance of social capital (Koka and Prescott, 2002). Coleman sees social capital as a source of investments. In addition, it examines the concept in the context of family/society. In this context, the concept of social

capital is described as a means of declaratory how people have managed to work together (Field, 2008).

Coleman notes that social capital does not only advantage the rich and powerful individuals but also advantages the needy and the crowded societies. By Coleman, social capital shows a source and includes anticipation of reciprocity. In addition, relationships go beyond individuals to encompass broad communication networks where trust is high and directed towards common values (Field, 2008). Coleman expresses the phenomenon of social capital as an origin that can be stored, acted as a community where people can be stored and reached the targets (Keleş, 2012).

Coleman describes social capital with its functions. It is described as a mixture of different units from a single unit. In other words, two common features of different units come to the foreground. They all happen certain features of social structures and facilitate some actions of actors, persons or legal actors (Coleman, 1988). In other words, for Coleman, social capital is described as an aspect of the social structure that amenities the activities of persons and creates value inside of the social structure (Seibert et al., 2001).

Like Bourdieu's work, Coleman's interest in the social capital was born in an effort to clarify the relationship between social disparity and academic success in schools (Field, 2008).

Coleman has been particularly interested in how social capital activities have facilitated the creation of intergenerational human capital (Furstenberg and Hughes, 1995). In addition, the success of students has focused on the family background (Bankston, 2004). Also, with respect to Coleman, social capital is an abstract concept and is involved in the relationship between two actors or more actors. Social capital in the family is the relationship between parents and children; and out of the family, as relations between parents. According to Coleman, examples of social capital are based on some forms of constantly changing networks, shared identity and concern (Bebbington and Perrault, 1999).

In accordance with Coleman, social capital should not be perceived as a single assets, but as variations of various asset that have two common features. These assets, which are composed of certain aspects of social structure, become role models in reaching the targets of the individuals within the structure. In Coleman's mind world, social bonds are important at the point of individual utility (Portes, 2000).

In summary, social capital in Coleman's mindset is used synonymously with the generation of useful resources within the context of the functioning of social relations (Keleş, 2012).

2.3.3. Robert Putnam and Social Capital

Putnam tried to explain and analyze the differences between the governments in the northern and southern regions of Italy. First, it focused on the efficiency of public policies in the north and the south and based on the mutual relationship between the government and civil society the cause of success in the northern region. He has examined the activities of associations in the large autonomous city-states that regulate itself in the northern region and has observed the sources of beneficial citizenship. In the south, the relationship between the state and civil society is distorted because mutual doubt capital is used to reveal these differences in civic participation (Field, 2008).

The most distinctive feature of Putnam different from Bourdieu and Coleman is the social action, which is far more important than individual action and goals. Putnam claims to be especially important in collective actions because of the possibility of co-operation of social capital. Putnam has centered on participating in voluntary organizations in democratic societies.

According to Putnam, the most major indicator of social capital is the participation culture (Figure 2.1). Social capital plays an important role in increasing prosperity level in the maintenance of a stable political structure. At this point, Putnam explains the difference in development between the regions of northern Italy and southern Italy, explained the development of the northern region, with the strong relations among government and civil society. The connection between the government and civil society is weak due to the lack of development of the Southern region, the formation of suspicious and fearful cultures.

Figure 2.1. Putnam’s Social Capital Summary
(Source: Keleş, 2012)

According to Putnam, social capital reveals the prosperous structure of the country, trust at a higher level, the active participation of citizens and the results that are targeted at this point. In other words, social capital helps people solve their problems more easily through cooperation, facilitating trust and interaction in the social structure. This increases interpersonal communication and makes it easier to solve problems (Keleş, 2012).

2.3.4. Francis Fukuyama and Social Capital

One of the names that contributed to the concept of social capital is the American political scientist Francis Fukuyama. Fukuyama, who has caught the reputation with his thesis at the end of his history, argues that crucial benefit in the production of economic and social prosperity by means of Trust: Creation of Social Virtues and Welfare (2000) and "Great Resolution" (2000). The basic argument of Fukuyama is that all the economic actions in the modern world we live in can be done not by individuals, but by structures that require social co-operation at a high level.

According to Fukuyama, social capital can be defined as simply as shared norms or informal values that allow cooperation between group associates (Fukuyama, 1997). Fukuyama's other definition of social capital is expressed as a concrete, informal norm that supports collaboration between two or more people (Fukuyama, 1999).

In Fukuyama's work, the economic and political functions of the social capital have been retained. In this context, social capital minimizes the transaction costs in the economic sense and, in the political sense, promotes the connections needed for the success of modern democracy and governance. For Fukuyama, social capital is a phenomenon that clarifies why capitalism and democracy are closely related to each other. It is emphasized that a healthy capitalist economy is at a sufficient level of the social capital that permits units that can organize in the business world, corporate enterprises and network structures on the basis of society (Fukuyama, 2000).

2.4. The Importance of Social Capital

The concept of social capital emerges as a factor that affects economic growth/development. In recent years, many researchers have been working on the need

for social capital in emerging countries to focus on. It is stated that the role of the interaction between labor and capital in economic growth is very high and that social capital is the most momentous supporter of growth and development. While many scholars view social capital as a significant dynamism of economic growth, they also point out that social capital level is high in the development of high-income countries.

Social capital, in the broadest sense, refers to the potential to be mobilized at any time in order to realize the common goals and expectations of a society in social relations. Relations as a means of bringing society back to the fruition at any moment involve the potential of a social capital in which trust-based associations such as co-operation and solidarity, in which a constant commitment is established, values are reconstructed. In the words of Tocqueville (1994), social capital is built on common values and perceptions, builds common values and perceptions in the solution of problems, improves the ability to act jointly in the solution of problems, the association is art. When they act jointly with people and organizations that raise social capital over a specific value, they are likely to have access to the resources and resources with the critical prescription. The collective institutional identity, which increases the ability to act together, can only be increased by social capital. Francis Fukuyama, "The End of History", states that mobilizing and increasing bribery in communities where people have lost confidence creates a strong state claim (KOSKEB, 2005).

Woolcock argues that societies with higher social capital are happier than those with safer, cleaner, healthier, more cultured, better governed, better developed and generally less social capital.

The concept is fundamental to many social scientists and researchers in the sense of the insecurity that is prevalent in today's societies and in analyzes of the social structure of our time. Today, the problem of insecurity that people experience is shown as the address for the collapse of social structures. This is due to the fact that Robert Putnam's many works, especially Bowling Alone: The Collapse and Revival of American Society (2000) and Francis Fukuyama's "Big Dissolution" (2009) it is based. The researches and applications brought to the square show that the social semen has become the center of attention for all disciplines. Especially in the disciplines of growth and development of economics, it is considered as a complementary element of physical and human capital, and even as the main determinant in the movement of these elements.

Social capital is a broad notion that can guide society from the point of view of community and express social links, networks, and trust between individuals (Keele,

2007). The crucial spot here is that social capital is a quality that can illuminate and collect social events.

Social capital comes out on the social plane. Economists do not consider the causes and sources of social capital when it says that the election takes place on an individual level (Rupasingha et al, 2006).

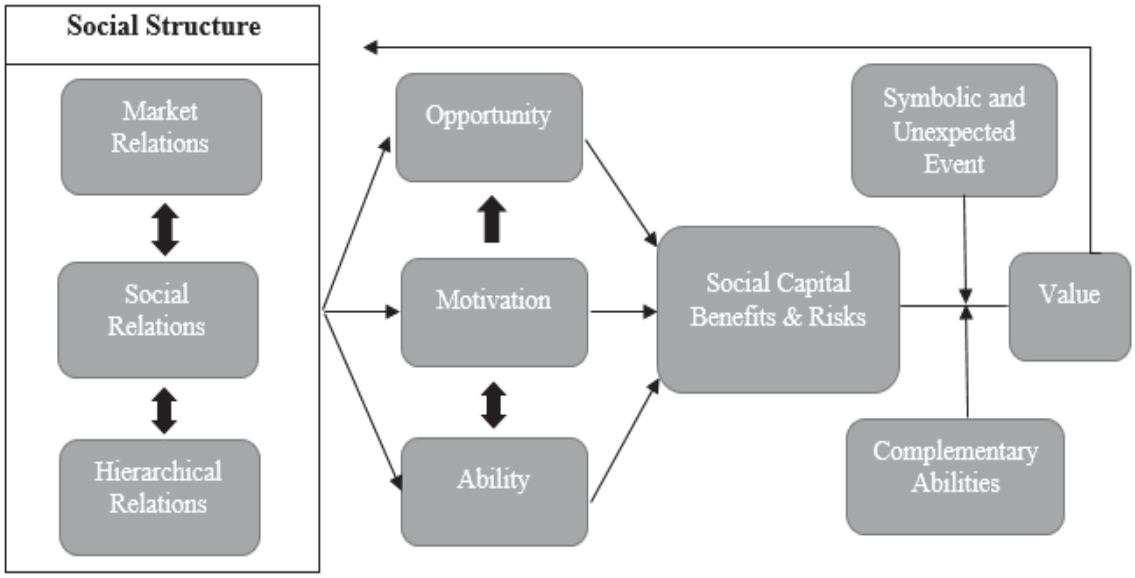


Figure 2.2. Structure of Social Capital
(Source: Adler and Kwon, 2002)

Social capital is in concept as a notion and directly affects the social structure (Figure 2.2). The social structure that revolves around social relations is hierarchical in the institutional basis and interacts with market relations. Through opportunities, motivation, and skills, individuals benefit from the benefits or risks of social capital.

The importance of social capital should not be limited to the purely economic area by way of the concept of capital. Because social capital, before showing its effect on the economic scene, it is important that a healthy social structure is formed in the social, cultural and political context. Just at this point, social capital is described as a phenomenon that cannot be compared with other material and spiritual values, which can affect absolutely every field and circumstance belonging to man (Karagül, 2012).

If a person has a level of social capital at a high level, the following consequences arise (Krebs, 2008);

- They are finding a better job faster.
- Early promotion is more likely.

- They have more opportunities.
- They get bigger bonuses.
- They increase the performance of their teams.
- The squad reaches its goal faster.
- They perform better as project manager.
- They produce more creative solutions.
- They become more effective in project coordination.
- They have more information about the environment and the market of companies.

2.5. The Components of Social Capital

With the different determinations among researchers as to what constitutes social capital, this work constitutes three important components of trust, social norms, and active participation.

2.5.1. Trust and Social Capital

The level of trust that can be defined as the assurance that one party in a relationship between individuals or groups will not abuse their own weakness is an important concept used in defining and measuring the concept of social capital (Korczynski, 2003). Trust is the crucial component that enables individuals to act in common actions in social life. Individuals or groups need to be able to carry out an action that they will benefit from and to share in a certain way the benefits they will provide from this action, and they need to trust each other (Dasgupta, 2005). According to Leadbeater (1997), an interconnected society with stronger trust and cooperation is stronger and better manages itself. In communities where the level of trust is high, collective activities take place more regularly and the results achieved in these actions are successful.

The level of trust is considered as one of the important factors that constitute social capital in the literature. Coleman and Putnam agree that trust level should be taken as one of the basic components of social capital (Field, 2008). Trust based on ethical sources is an increasingly consuming component of social capital that increases in quantity as it is used in the society (Putnam, 1993). Therefore, the confidence that

individuals and groups hear in society provides for the formation of social capital; while the increase in the level of trust contributes to the increase of social wealth and social welfare. According to Putnam (2000), individuals, companies, and nations are enriched in societies where trust and social networks develop. Taking trust as the main element of social capital, Fukuyama (1995) states that social capital is the capacity stemming from trust in all or some parts of the society. Trust consists of shared values (Fukuyama, 2000) and societies cannot emerge spontaneously without this mutual trust (Fukuyama, 1995). According to Uslaner (1999), which treats trust like Fukuyama as the main element of social capital, social capital express to a system of values, especially social trust.

The effects of social capital on economic growth show itself directly or indirectly. Reducing transaction costs and avoiding externalities that increase costs are directly influenced (Whiteley, 2000). The occurrence of these direct effects is about the confidence level in the society or group. Social capital, through trust, reduces contracts and transaction costs, enabling markets to work more efficiently and thus contributing to economic development (Fukuyama, 1995). Increasing dependence on the economy and other contracts, depending on the level of confidence in the society, reduces transaction costs and average production costs. This positively affects economic performance in a manner similar to the results of other capital increases (Sabatini, 2008). Societies with a level of trust, and therefore improved communication can save many actions that could lead to loss of labor, capital and time (Woolcock and Narayan, 2000). On the other hand, decreasing expenditures for safety and justice, due to reduced crime rates due to increased trust, reduces the cost burdened by society (Knack and Keefer, 1997) and allows for shifting of available resources to areas where they can be used more effectively.

2.5.2. Norms and Social Capital

Social norms are defined as norms, norms, and ideas that have been formed within the framework of their own culture within society and which, in this way, have led to social order, leading people, and determining right and wrong. People who have been through periods such as industrialization and economic modernization have undergone a constant change in social norms during this period (Fukuyama, 1997).

Social norms and values are expressed in terms of widely shared cultural beliefs and their effects on the functioning of the social structure as a whole (Harriss and Rebzio, 1997).

Social norms constitute social capital because people give up their interests at the point of the benefit of the society and social support, status, norms encouraged by it and similar awards increase the ties between people (Keleş, 2012).

Both Putnam (1993) and Coleman (1988) stated that social norms are indispensable elements for the creation of social capital. Coleman considers the degree and quality of the shared norms. Norms that represent ethical judgments and standards provided by social relations are confronted as an important factor that motivates persons to moral actions. Norms' capacity to create social capital stems from the fact that individuals forfeit their own benefits for the benefit of the social building, norms promoted by prizes like social help, conditions, dignity, public interest and development of links between people. According to these thinkers, social norms support an informal shape of social superintendence. For this reason, there is little need for formal forms of control and institutional punishment.

The norms that determine the ethical judgments and standards that are provided to the relations in society are the effective sanctions that direct people to moral behavior. These effective sanctions, although they are restrictive for some of the members of the cadre, have a separate prescription for social capital. Behind this preoccupation, norms lie in the idea of negotiations from the elements of social capital that produce norms. The norm's capacity to create social capital stems from the fact that for the sake of the society the individual foresaw to give up the cat's interests and norms encouraged by other prizes such as social assistance, situation, pride and so on require people to take care of the public good and strengthen the ties between people. According to Coleman (1988), social norms convey to other actors the right to control the action that any actor performs, because actions can have positive or negative consequences for some actors. Norms; modeling, socialization, and sanctions. The behavior of an individual in society is assessed by others in society through these norms. In particular, norms need to be fairly straightforward in order to become social capital, have more specific features such as fulfilling responsibilities and reciprocity.

The effects and characteristics of social norms can be listed as follows. These are (Karagül, 2012);

- It is formed by the common lifetime or by the central authority.

- The concrete values of social values are antagonistic.
- It provides individual and social control.
- It ensures order and administration of society.
- It is described as bans restricting the behavior of individuals.
- Society is changing or changing over time.

In summary, social capital facilitates activities to achieve the targeted economic point, strengthens links and positively affects product innovation. In order to success such results, it is essential to maximize the trust level among employees themselves, between the managers and even the firms. Just at this point, trust exists for social capital (Keleş, 2012).

2.5.3. Participation and Social Capital

Participation, which is another element of social capital, changes when social interaction is done not organizationally but individually. For example, the situation of going to help activity organized by a non-governmental organization expresses the importance of participation. The dimension of participation at the country level, which is the element of social capital accumulation, can also be expressed by voting political parties, trusting state institutions, participating in social responsibility projects or regulating them. Generally speaking, participation can be expressed as being active in the society and taking responsibility. It forms the basis of pluralism in the framework of democracy in order to increase citizens' participation in decision-making processes and to enable them to become active in the issues that interest them. Citizen participation allows not only the exercise of the right to vote and election but also the misinterpretation of the mechanisms by which government policies can be influenced.

Achieving effective participation is of great importance for the production and sustainability of social capital. What is important here is to increase interpersonal confidence with participation. They actively engage with the assumption that the individuals in society are in any action and that the action can be carried out in a similar way by others. These common goals constitute social capital and increase interaction.

2.6. The Relationship between Social Capital and Economic Growth

Factors of production that are accepted as basic elements of production up to sunny; labor, capital, natural resources, and entrepreneurship; in short, these four factors of production are insufficient to fully explain the functioning of the economy. Therefore, in addition to the four basic production factors, social capital, which determines the level of communication-based on human capital and social trust in which the knowledge and skill of the employee are addressed, has entered the economic literature as new production factors (Collois et al., 2005).

Especially in the last half-century, social capital has begun to be regarded as a type of capital and many works have been applied which reveal the relationship between social capital and economic development. Many of these researches have focused on the fact that many of the development policies and models that hold the role of the physical capital in development have not achieved the expected successes. Changes in the nature of global production and trade act a crucial role in the failure of traditional policies; the relative importance of natural resources and physical capital in terms of resource richness, while the increasing importance of human and social capital has also provided the main motivation for these researches.

As a supplement to human capital, the concept of social capital arising from the trust and co-operation of new groups and organizations has become increasingly important, with emphasis on the importance of cultural characteristics in explaining differences between countries in competitiveness and industrial policy studies.

In the late 1990s, new approaches emerged that included economic growth and the significance of cultural elements in development. The role of social capital in economic life has begun to be debated in relation to norms and values. In parallel with these discussions, the concept of social capital has begun to become a subject of interest to economists and has begun to enter into the economic literature. The emphasis is primarily on the social and cultural aspects of human behavior, and their economic applications are addressed. While many different economists are related to the definition of social capital, most definitions emphasize functional orientation and emphasize collective behavior. In addition to this definition of social capital in political sciences, social cohesion in sociology or the economy is particularly concerned with economic growth (Fukuyama, 2002).

While many economists emphasize the importance of institutions in development, few mention the importance of cultural assets such as social capital. The legal system, commercial courts, public institutions, banks, the system of intellectual property rights may change, but it is more difficult to manipulate politics where there are cultural values. The link between culture and institutions is very complex. In the development course, social capital acts a critical part in democracy. The involvement of individuals in each other makes significant differences between countries that are organized for common needs (Fukuyama, 2002).

OECD; National Welfare has argued that there is a "strong complement" between human capital and social capital in reporting, mutually, positively and nurturing. Nevertheless, Schuller chose social capital, which emphasizes integrity, as an alternative proposal to the concept of human capital, which emphasizes that people only maintain their own interests (Field, 2008).

The World Bank predicts that economic growth and human well-being will not be probable without social capital dedicating to the importance of social capital in development (Callois and Angeon, 2004). Iyer, Kitson, and Toh consider the missing ring as a social capital in the pioneering work they did in the US in 2000 (Iyer, Kitson and Toh, 2005)

Social capital influences economic growth with different mechanisms. For instance, in the Solow-Swan growth model, technology, physical capital, human capital and the social capital that emerged in recent years. In this model, social capital yield affects through the change of the modes of action in which technology is used. When a new invention comes into existence, in social societies with higher societies, this invention is immediately accepted, misunderstood and collective adaptation is ensured. As a result, in this society with a great level of social capital, the economy is experiencing very rapid and early technological progress (Iyer, Kitson and Toh, 2005). In societies with high social capital, technology is accepted and adopted more quickly, and the economy is gaining momentum.

Social capital affects economic development directly and indirectly. The direct effects arise from the reduction of transaction costs and the avoidance of externalities that increase costs (Whiteley, 2000). Within the scope of reducing the transaction costs; (Woolcock, 2001), which can lead to waste of labor, capital and time in communities where trust and improved communication possibilities dominate. In communities with high levels of trust, individuals have less effort to protect themselves in economic

transactions, and a smaller portion of their resources devote themselves to protection, in which case written contracts are less needed and less frequent in legal cases (Knack and Keefer, 1997).

At the same time, low levels of trust are also preventing innovation. Entrepreneurs; (Knack and Keefer, 1997), if they allocate more time to monitor adverse events that may arise from their partners, employees or producers.

Trust and civil norms both directly and indirectly affect economic performance. Trust and civil norms improve the performance of management and the quality of economic policies by influencing the level of participation and qualifications in the political process. At the same time, civil norms help the public to participate in the political process by solving the problem of common action in the pursuit of public officials (Knack and Keefer, 1997).

Indirect effects are realized by allowing more efficient and rational use of existing production factors (Glaeser, 2001). In addition, reducing corruption and bureaucratic processes, democratization, ensuring human rights and political stability, increases productivity.

In order to benefit effectively from social capital, human capital is needed first. Human capital and social capital, which are important elements of economic development and are used to express concepts such as knowledge, skills, abilities, health status, social relations, and level of education that a person or society has, are two different values that complement each other. Because in a society where there is no social capital and therefore social responsibility does not develop, human capital can be used against individual interests or society, not for social interests. For this reason, the efficiency conditions of the human capital and the efficiency conditions of the social capital should be analyzed well (Karagül, 2003).

An important feature of social capital is its ability to transform into human capital. For example; in the transformation of savings and in loan relationships, banks can use social capital as a substitute for insufficient financial resources. Thus, an alternative way of reaching credits for individuals with credibility emerges. It is possible to improve the level of education of some individuals when such credits or financial supports are used for training. Thus, social capital is transformed into human capital (Callois and Angeon, 2004).

In this context, there are a lot of empirical works that show the level of both human capital and the strong relationship between social capital and economic growth (Bjørnskov, 2006). It has been found that trust level in the community acts a crucial role in the reduction of transaction costs (Fukuyama, 2000) while avoiding waste in sources used during production.

2.7. Positive Impact of Social Capital on Economic Growth

Studies examining the relationship between economic growth and development and social capital have increased substantially of late years. When the empirical results of the studies are examined, it is seen that the social capital affects economic development in many different directions.

The vast majority of researchers who talk about the existence of the relationship between social capital and economic growth generally focal point the positive side of this relationship and emphasize that social capital has a major role to act in economic growth. Focusing on the positive impact of social capital on growth, researchers have focused heavily on trust, especially from social capital indicators, and tried to explain how "trust" plays a role in economic growth. The collective action and cooperation from social capital indicators help to achieve the goals that cannot be achieved individually.

Among the many studies investigating the influence of social capital and confidence in economic growth, the province and most importantly Putnam's (1993) book "Making Democracy Work" has become. Putnam (1993) investigated inter-regional economic and institutional differences in Italy for the post-World War II period and showed that social capital has an important role in explaining these differences. It explains the differences in local government's efficiency and regional economic performance in the interregional social structure. It has shown that effective governance is strongly linked to civic participation and civic networks in the region. It found that social capital is high in regions where participation in social organizations is high. In Putnam's (1993) statement, "social networks lead to trust and transfusion; I trust you because I trust him and he has shown me that he also trusts you". This result can be used to explain differences in economic performance between different regions, besides actually policies supporting social capital formation may increase regional economic development. According to this proposal, administrators in the society should not only aim to develop joint activities for

desired social and political outcomes but also aim to support economic development (Midgley and Livermore, 1998).

Putnam (2002) states that in countries where social capital is high, there are less economic inequality and inequality among citizens and lower tax evasion rates. Also, where there is a great deal of reciprocity and networking among people; it is likely that other people are being complied with because of their safety. Social capital and tolerance to other people are also positively related. Criminality is strongly associated with social capital negatively. Where the social capital is high, it is expected that the murder rates are lower and that people are less likely to be quarrelsome.

Social capital reduces crime in society. It contributes to the development of norms and values and thus reduces the tendency to commit a crime. By strengthening the ties within society, it enables sanctions to be imposed, such as indemnifying against individuals who act contrary to norms and values, and ensuring compliance with the rules of society in general. Security costs are less in a society fitted with rules.

Social capital can reduce the tax evasion rate by reducing government incentives for more tax bills and crimes, and the state is looking for criminal charges, apprehension, prosecution, etc. which leads to a reduction in costs and thus contributes positively to development. Besides, highly organized societies demand better services from public institutions. Moreover, if social capital is high, social control and co-operation over shared resources are better. In degraded societies, environmental degradation is greater. Where there is high social capital, communication channels between individuals are also strong. Thus, the likelihood of disseminating new ideas to all members of the community is higher. Since households are more likely to get help from the people concerned and from the community, there is a risk distribution. That is, there is an informal social safety net.

In Karagül and Akçay (2002), insufficient social capital is a significant factor in the economic corruption experienced in Turkey when the resources are not used effectively. Moreover, lack of trust in society is the source of the bureaucratic obstacles in the public which are one of the problems that are not solved in Turkey. The bureaucratic obstacle, which is a consequence of the inadequacy of social capital, slows economic activity in the country, causing the investments in the country to cease and corruption to occur.

Another important contribution in the literature investigating the relationship between social capital and economic growth is Fukuyama's 1995 book "Trust: The Social Virtues and the Creation of Prosperity". According to Fukuyama (1995), societies, where

trust is established and widespread, have some sort of social capital, and trust is complementary to traditional production factors, capital, and labor. A country with this advantage can succeed in a modern economic bloc. According to Fukuyama (1995), regulation and compulsory sanction mechanisms are less in societies with higher levels of trust than those with lower levels of societies. Therefore, trust can replace official contracts in these societies. Trust here also contributes to flexibility by lowering transaction costs. The trust phenomenon is not only posing legal substitution but also positively affecting complex detailed transactions. Even if institutions fulfill their functions in a healthy manner, full and complete regulation of all details in contracts is not possible and absolutely gaps can emerge (Beugelsdijk and Schaik, 2005). Even further, if there is no trust, some transactions may hardly ever be possible. For this reason, Fukuyama's concept of "non-family or generalized trust" has become very important in order for specially developed economies to achieve successful performance. Fukuyama (1998) stated that Asian values play a role in the economic crisis in Asia in 1997, and in this case, it is a factor of the weakness of social capital.

By Coleman (1988), social capital refers to the social links and networks founded between people in the context of broader social orders. Coleman argues that sound and permanent human relations facilitate effective human processes and increase the quality of social institutions. Coleman (1988) describes three shapes of social capital. These; responsibilities and hopes, channels of knowledge and social norms, and powerful confirmations. The effect of social capital on work, outside the family (in society) and within the family is explained through the social capital function. Social capital is treated as a root that facilitates the activities of individuals. Coleman (1988) also placed an important place in the link between social and human capital. One of the primary importance influences of social capital is the effect of human capital formation for future generations. Coleman (1988) found that children with strong associations had higher levels of education than children with families with weaker associations. According to Coleman (1988), high-level social capital supports higher education, human capital formation, and high economic performance. Geertz (1962), on the other hand, expresses that associations of friends and neighbors serve as efficient institutions that enable them to save money on small expenditures and that they have been very helpful to economic development.

2.8. Negative Impact of Social Capital on Economic Growth

One of the major weaknesses in the social capital literature is that the negative impact of social capital is hardly noticed. Usually accepted that social capital is useful. However, some scientists have expressed the negative impacts of social capital. Adler and Kwon (2002) state that social capital must also be considered in terms of the profit, risks, and profits of the social capital, with a view to providing a balance of risks, expressing benefits as well as risks.

According to Callois and Aubert (2005), the social relationships that cause social capital to come to fruition; it can prevent individuals, groups or associations from turning to areas that offer new and better economic opportunities. Vehicles that have penetrated well into the social structure do not go for the optimal search of a better partner. Thus, the result of the social capital among the group members, the labor force can be miscomprehended and the resources can often be distributed inefficiently.

Another negative impact of social capital on development is the fact that people do not objectively use their authority to place them in work due to their strong ties and binding social capital. According to Mani, Fukuyama states that loyalty will lead to favorable relations with his close relatives or close friends, and that the favor of a boss's children or a person working at his / her disposal will not have positive results for the organization (Fukuyama, 2000) and favoritism of relatives in the preparation of contractual matters, corruption, the choice of relatives and friends is not limited to the rebirth of those who are only more qualified. It also harms the economy and the social system.

In the previous section, it is explained how trust affects positively economic growth and empirical studies supporting this result. Nevertheless, some researchers have always stated that these results cannot be seen and that they may be in the opposite effect of trust (Alesina and Ferrara, 2000). For example, Roth and Schüler (2006) used the fixed effect method in unbalanced panel models. In their study of WVS data for trust variables, they found a negative relationship between trust and economic growth in models using growth, personal confidence, income, human capital, cost of investments, openness, investment, systematic trust. Woolcock and Narayan (2000), underlining the negative social capital situation that social capital has damaged the economic development process, have come to the conclusion that corruption, bureaucratic delays, repressed civil liberties,

inequalities, divisive ethnic tensions and failures in protecting property rights are obstacles to development. When there are polarization and fragmentation among the groups, social capital is weak. Collier and Gurning (1999) and Easterly and Levine (1997) link the low level of development in Africa to the level of low social capital and the existence of ineffective institutions. Collier and Gurning (1999) argue that disagreements between civil wars and tribes, together with weak civilian social capital, slow the development of Africa. Similarly, Easterly and Levine (1997) concluded that the high level of fragmentation of countries in Africa can explain the low growth rates of the region, poor economic policies. On the contrary, Easterly (2001) has shown that developed countries have high levels of development and growth so that they deal with well-functioning institutions of ethnic and class polarization, but studies that support this view empirically are very limited.

Practical social popularity of social capital has begun with Putnam's research on developmental differences in different parts of Italy, but the results have not been clear enough at macro level (Callois and Angeon, 2004). Nowadays, social capital studies have been used by Putnam some scientists seem to be cautious about the results of their work. One of these was Sabatini, who criticized Putnam's findings about the level of social capital in the US as he criticized social capital indicators. Sabatini notes that the US economy grew during this period, despite Putnam, Costa and Kahn claiming that there was a large drop in social capital in the US in the 20th century. According to Sabatini (2005), it is also doubtful that the US social capital has decreased. Sabatini notes that Paxton has been analyzing lots of indicators of social capital in the US for over 20 years, resulting in no support for Putnam's claims, a reduction in trust in individuals rather than a general reduction in social capital, and a general lack of confidence in institutions. Sabatini regards the link between social capital and development as extremely complicated. It is even claimed that economic development itself is one of the factors that destroy social capital. As we have seen, it is seen that even experimental studies on social capital and development sometimes conflict with each other and researchers do not agree with each other's opinions.

Fukuyama (2000) argues that the relationship between social capital and economic success is indirect and weak. According to him, if the saving rate suddenly drops or the money supply increases, it is possible to see the impact of the interest rate or the impact of inflation at the end of months or at the end of the year. However, social capital can be spent slowly over a much longer period, without any noticeable decline.

For example, people who are innate to cooperative habits do not lose their habits immediately, even if they start to lose trust. Once social capital is consumed and consumed in low-security societies, reproductive production can take centuries. At the same time, the reproduction of this capital is also very difficult.

Helliwell (1996) found that social capital growth in 19 OECD countries in 17 OECD countries was negatively affected by economic growth using WVS data in a work of social capital and growth in Asia.

When the opinions of researchers investigating the relationship between social capital and economic development are evaluated in general, it is seen that those who think that there is a relation between these two concepts seem to be dominant. While some of the researchers have stated that this relationship is weak, most argue that there is a strong relationship between social capital and economic development.

2.9. Measurement of Social Capital

It is extremely hard to measure social capital because of the uncertainties that it has conceptually experienced. This is also the case at the point where the indications used in the definition of the concept are being used when measuring the distress (Parts, 2008). Fukuyama has put two approaches to measurement, one of the biggest challenges of social capital. First, the number of existing groups and group members in the society, and second, the use of questionnaires on confidence level and civic participation (Fukuyama, 1999, Fukuyama, 2001). In parallel with the change of social capital and indicators, survey method or empirical application method is used in the literature. However, there is no definite method of measuring social capital.

What are the elements to be considered at the point of measurement of the social capital and what dimensions are to be analyzed, as well as the definition of social capital are examined with different approaches? The measurement of social capital is not the same as other economic values that can be measured. Analyzing the studies on the conceptual concept which is not measured by monetary values, it is seen that a wide variety of displays are used and the common view of all is that it is very hard to measure social ceramics.

Measuring social capital is as difficult as measuring human capital. To measure directly, it is necessary to use grip-like indicators (Grootaert and Bastelaer, 2002). According to academic studies, the forms of social capital can vary widely. This diversity

is probably explained by historical and cultural differences (European Commission, 2005).

According to Adam and Rončević (2003), measurement in social capital literature is expressed by the relation between the results, forms and sources of social capital. But the variables of social capital that make up this relationship and hold it together are not known precisely. Measurability has always been an important debate issue for economic factors. Likewise, the measurement and evaluation of social capital is also an important problem. Because, as with other production factors, there is no reliable and single method of measuring social capital. Because of this, it is not potential to precisely measure social capital.

One of the most salient features of economic values is measurability. In this context, the measurement of social capital differs from other economic values. Because other economic factors can be measured in monetary terms. However, it is not potential to survey social capital with money. However, there are some social indicators pointing to the existence of social capital in a society. According to the OECD (2001), "most of what is directly related to social capital is not spoken and associated, measurement and classification is not readily possible". Under these circumstances, social capital cannot be measured directly. In particular, the relations and shared values, which are covered by the concept, are based on local conditions and that the effects of people are affected in different ways can not only prevent the measurement and classification from being done easily, but also lead to differentiation of the methods to be followed at the same time. In short, the foremost problems of social capital literature is measured.

Despite the recent intensive work on the concept of social capital, debate continues over its measurement. Whether groups' objectives or social capital outcomes differ according to the structure of the group, it is shown among the reasons that make it difficult for social capital to become measurable. Nevertheless, Fukuyama (1997) attaches importance to some indicators that can measure social capital. He has argued that the high rates of deviation such as crime, scattered family, drug use, suicide, tax evasion and lack of social capital can be determined by focusing on negative outputs of the social capital more than positive ones.

Most of the factors used as indicators in the measurement of social capital are not and are not indicative of those that originally represent social capital. As the work done on the concept of social capital increases, new indicators representing social capital are being used, which causes the increase of the indicator diversity. One reason for this

diversity is that no clear conceptual description has been made. The results obtained from the measurement of social capital directly affect social, economic and political life. Due to its abstract nature, its measurement and evaluation can be very complex. This shows that there are different areas where social capital can be measured. For example, the level of trust in people, participation in organizations and associations is a major area.

Organizations such as World Bank (1998) and OECD (2001) are emphasizing macro indicators such as participation in political activities, petitioning, information communication and communication, mutual trust, participation in groups and non-governmental organizations, social networks, social integration to measure social capital.

The World Bank has improved a list of various indicators that can be used to survey social capital. The fundamental social capital indicators included in the register are: democracy, the rate of bribery, the independence of courts, strikes, the number of detainees per person per hundred thousand persons, the degree of trust in the sentences and syndicates, creditworthiness, personal independence, voter presence, attendance in local communities, (KOSKEB, 2005), participation in the context, authorization, representation authority levels, neighborhood links, family and friendship connections, business links, variety.

The number of non-governmental organizations and their membership status, voluntary participation in associations, societies and various organizations established for assistance, factors such as human relations in civil society, democracy participation rate in the society, the gain of meaning in the social frame of trust, ideas is available. In a society, the ratio of offenses against property and cannabis, the rate of use of notes in debt obligations among individuals, the extent to which commercial enterprises exceed the size of the person and the person, and the degree of corruption and divorce made are important criteria to be emphasized. The Social Capital Assessment Tool, which is a study of social capital; social capital's measurement and other concepts can be associated with an important step is formed. It is also a flexible tool that can be implemented at the national and project level. Indeed, at the national level, a survey covering the purpose of measuring living standards, or a database provided by a survey of household income levels or expenditures, allows for the examination of the relationship between social capital and poverty.

Indicators of social capital have been created in general, such as institutions and organizations, democracy, bribery level, independence of courts, industrial actions, protests, trust in the prisoner, confidence in the union, individual freedom, voter status,

attendance in social activities (Table 2.5). In addition, the ratio of the population suffering from political discrimination, the proportion of the population exposed to economic discrimination, murder rates, other crime rates, the nature of the bureaucracy, the applicability of contracts and monetary contracts are among the macro-level indicators of social capital (Şavkar, 2011).

Table 2.5. Indicators of Social Capital
(Source: Grootaert, 1998; Akçay, 2005; Karaçay, 2008; Kaya, 2011)

Institutions
• Number of associations or local institutions • Member numbers • Degree of trust in the state • The level of trust in village people and households • The degree of income and position homogeneity within the association • Trust level in trade associations • Degree of social organizations • Trust on charities • Dependency rate of elderly population • Percentage of income from households' income from abroad

Social Integration
• Social mobility indicators • Social tension measures • Ethnic difference • Protests and strikes • Murder rates • Suicide incidents • Other crime rates • Number of prisoners per 100.000 people • Non-legitimacy rate • Divorce rates • Unemployment rate

(Cont. on next page)

Table 2.5. (Cont.)

Civil and Political Society
• Civil liberties index • Coups • Constitutional government changes • Economic discrimination intensity index • Political discrimination intensity index • Percentage of population exposed to economic discrimination • The number of voters • Level of localization • Democracy index • Corruption index • Human freedom measurement • Political stability measurement • State inefficiency index • The power of democratic institutions • Political assassinations

Legal and Governance Aspects
• The quality of the bureaucracy • Independence of the judge • Expropriation risk • Applicability of contracts • Recognition of contracts by the state

In addition, the World Bank has developed a list of indicators that can be used at the point of measurement of social capital. These are (KOSGEB, 2005);

- Democracy
- Bribery level
- Independence of courts
- Industrial and student actions
- The degree of trust between the government and the union
- Credit usage
- Individual freedom
- Voter presence
- Attendance in local communities
- Attendance in actions in the social context
- Neighborhood links

- Family and friendship relationships
- Business links
- It is listed as showing tolerance to different ones.

2.10. Determinants of Social Capital

The reason why some societies/countries have superior social capital is another interest of the existing literature. Many empirical and theoretical studies have been conducted in this area. First and most mentioned determinants are the level of income and development, including health and education level. Lee et al. (2011) for instance, has emphasized the importance of high personal income and education level for the emergence of social capital in a community. Similarly, Neira et al. (2009) and Cote and Healey (2001) point to the role of development, quality of social and education policies, education level on the determination of social capital level. Dinda (2008) argues that education brings human capital that, in turn, promotes the commitment of the societies to norms. Parts (2013) argues that the level of personal income, attitudes, experiences, institutional quality and justice determines the degree of social capital. Uslaner (1999) states that the trust is a product of optimism created by high income. The second important determinant is the urbanization. Fidrmuc and Gërxhani (2005) argue that living in a relatively small city enhances the participation in formal/informal networks. Supporting this view, Alesina and Ferrera (2000) claims that in metropolitan cities, less informal social interaction is observed. Third, it is argued that poverty and unequal distribution of income reduces the collective activities and thus detriments the social capital (Knack, 2000).

Empirically, the determinants have been tested in various studies. For instance, Parts (2013) has used the EVS (European Values Survey) and analyzed the determinants for a period 1990-2008. As a result, social capital is found to be related to democracy, education level, age, income and number of children. Another study is implemented by Christoforou (2003) on EU. He found that higher education (obtaining a higher degree), high income and less unemployment induces the social participation. Finally, Fukuyama (1998) has discovered that social capital inclines to rise with the age of individuals.

2.11. Studies on Social Capital

When the literature is examined in general, it can be seen that the indicators used in the studies carried out show a great variation. Because the concept of social capital is interdisciplinary, the indicators vary depending on the field of researcher's work, subject matter, and purpose. Almost all of the studies have resulted in a positive impact of social capital. In this context, the literature is chronologically summarized below.

In Helliwell and Putnam (1995) study, the relationship between economic growth and social capital in Italy has been retained. Between 1950 and 1990, he conducted a study on the territories of Italy. They have come to the conclusion that regions with higher public participation have higher economic growth. Variables such as indicators used in the analysis, real per capita output, public participation index, newspaper reading rate, the prevalence of sportive and cultural organizations, referendum participation rate were used. As a result of the work, public participation has positively influenced economic growth.

Helliwell (1996) states that social capital is positively associated with economic growth in explaining the differences in economic growth between Asian economies between 1987-1998. The growth of the economies called as Asian tigers have reached the conclusion that there is not a great effect of institutions and social capital. Helliwell notes that this result may be due to comparable lack of data for Asian economies.

Bullen and Onyx (1997) conducted a survey of 1211 people aged between 18 and 65 who were randomly selected in five rural areas of New South Wales, Australia in 1996-1997 to determine the level of social capital. In the questionnaire, questions were asked about trust, attitudes, reciprocity, local collective participation, respect for difference, relations with people at work, attitudes towards managers and demographic characteristics. SPSS package program was used in the evaluation of the data and Factor Analysis was used as the method. They found that the level of social capital is different in the settlements where they are measured. Moreover, demographic characteristics such as age and gender have come to the conclusion that social capital may not always be related.

Knack and Keefer (1997) investigated how social capital influences economic performance through trust and civil norms of 29 countries over the 1980-1992 period, using data from the World Values Survey (WVS). It has been determined that nations that have a strong sense of trust and cooperation, and that have a homogeneous and the better

educated population in ethnic terms, have a higher and fairer distribution of income. Findings show the positive and positive contribution of social capital expressed by confidence and civil cooperation on economic growth.

La Porta et al. (1997), the impact on confidence in the productivity of big firms was analyzed using the OLS method, and confidence indicators were used in 40 countries for the 1980 and 1990 World Values Survey. As a result of the work, trust is the result of facilitating harmonies in large organizations.

Narayan and Pritchett (1999) conducted a survey of Tanzanian farmers in Tanzania using the results of the Tanzania Social Capital and Poverty Survey conducted on 5,000 households in 1995 to explore the relationship between social capital and other factors. In a survey of 1,376 households, 1376 households surveyed in social capital and poverty they measured the relationship between social capital and poverty. According to OLS results, a standard deviation increase in social capital increases household income by at least 20-30%. It has also been found that social capital encourages the dissemination of innovations, provides a kind of informal insurance against unforeseen risks, which compensates for the lack of information on the market, and as a consequence increases the enrichment by causing changes in agricultural practices. In summary, the study emphasizes the hypothesis that high social capital causes a high income.

Schneider et al. (2000) examined the 58 EU regions for the period 1980-1996 in their work of the effect of political culture on economic growth within the social capital. The work was developed with the work of Putnam's Making Democracy Work, where interpersonal confidence was analyzed for economic prosperity and the influence of political institutions on the territory of Italy. Schneider et al. (2000) examined social capital on the basis of indicators of economic refinement, cultural indicators, discussion, and trust. The neoclassical growth model used is based on cultural factors as well as on the economic growth of the social capital added as a confidence.

Svendsen and Svendsen (2000) examined Denmark co-operatives in rural areas as a demonstration of social capital for the purpose of determining the impact of social capital based on co-operation. The result is that social capital, which is used in the sense of trust, promotes economic growth and co-operation in the rural area of Denmark. It has been defended that social capital should be considered as an important factor of production when centralization of production, scale economies, and economic growth are considered in the study.

Whiteley (2000) tried to clarify the link between social capital and economic growth with the neoclassical growth model covering 34 countries for the period 1970-1992. In his work of social capital in the model of capital as a production factor such as human and physical capital, which is the other variant, social capital is a variable that accelerates the diffusion of technological innovations and positively affects economic growth as much as other production factors.

Grooatert (2001) explored the importance of social capital for Bolivia, Burkina Faso, and Indonesia; the question of whether the countries with high social capital have higher living standards than the low ones. Using Narayan and Pritchett's (1999) reduced model for Tanzania, the author found that the social capital index in Burkina Faso and Indonesia had meaningful and positive effects on household welfare, but not in Bolivia. Affiliation in local cohesion improves household prosperity by 1.5% in Indonesia and 7.1% in Burkina Faso.

Zak and Knack (2001) examined the relationship between trust level and economic growth as the basic criterion of social capital in their macro-level studies. Knack and Keefer (1997) have added 12 countries to the 29 countries they have used and have expanded their analysis of the trust level of the 41 countries they have used investment and growth in order to be able to explain why and how different levels of trust affect economic performance. The results of the model show that in countries with the high trust level, the transaction costs are lower and the output level is higher and the economic growth rate is higher than those with the low trust level. According to the study, institutions also influence growth by way of trust level.

Raiser et al. (2001), the transition economies of the Soviet Union and East and Central Europe were the subject of analysis. In the analysis covering 1990-1995, trust and civic participation data were used and evaluated by the OLS method. There is no positive relationship between trust and growth in transition economies, but it has been shown that civilian participation has a positive effect on growth. In addition, it has been found that there is a positive correlation between confidence indicators in public institutions and growth rates.

Anirudh Krishna (2002) has started to work for the measurement of social capital over 2000 people randomly selected from 69 villages of Rajasthan city in India in 1998 and completed his work in 2000. 45% of the people are under the state poverty line. Using the OLS method, six indicators were used when measuring social capital and the questions focused on their detection. These; membership in the groups to which the labor is shared,

assistance in the case of products suffering from illness, assistance in natural disasters, trust, solidarity, and reciprocity. These six indicators constitute the social capital index at the same time. It is seen that these indicators are much related to each other and that the result is high in one subject and high in the other. As a result of the research, it was determined that high social capital is related to high development.

Karagül and Akçay (2002) analyzed the relationship between economic growth and social capital using the OLS method. By the implementation, the theories of the social capital's meaningful effect on economic growth were analyzed by two different periods, from 1960-1995 and 1980-1995, by way of 36 countries' data. As a result of this analysis, while there was no meaningful correlation between economic growth and social capital in the period between 1960-1995, a meaningful relation was found between years 1980-1955. In other words, countries with high social capital have achieved high economic growth.

In the study conducted by Knack (2003), groups, trust and growth relations are discussed. The validity of two hypotheses proposed by Olson and Putnam on alternatives to each other was evaluated by horizontal cross-section analysis and data from 38 countries between 1980-1998. In this study, the association of group members is tested for generalized confidence and economic performance. The variables used are growth, investment rates, per capita income, property rights index, inflation rate, schooling rate. As a result, the findings supporting the Olsonic hypothesis have been found to be low and the Putnamian hypothesis has supported very little.

Mubangizi (2003) examined how social capital can be used to fight poverty and provide economic development in Africa. In addition to contributing to the economic development of the society, social capital also contributes to empowering individuals, improving their trust and managing their own lives. It has been determined that social capital will improve rural living standards and be used against poverty.

In the study by Beugelsdijk and Smulders (2003), the effects of the European Values Survey between 1950 and 1998 on the economic growth of non-community networks represented by community memberships of intra-community networks including family members and friends for 54 European Regions were analyzed using 2-step OLS method. According to the model, there are regional differences in materialist attitudes, and participation in open networks has significantly reduced in family life, which has reduced regional growth output in Europe. As a result of the study, it was

revealed that intra-community networks negatively affect economic growth and affects non-community networks positively.

Sjoerd Beugelsdijk and Ton van Schaik (2003) divided 54 European countries into 54 regions for the social capital's effect on regional economic development and conducted research in these regions covering the 1950-1998 period. These countries; France, Italy, Germany, Spain, Netherlands, Belgium and the United Kingdom. In the study of classical regression analysis, they focused more on trust and group membership. According to the results of the analysis, there is no strong relationship between trust and growth, but the relationship between active group membership and horizontal networks and growth is strong. As a result, there is no solid evidence that the rate of investment and schooling from social capital indicators is an important influence on regional economic growth. Moreover, the direct relation of economic growth to the regional level of social capital, which is called trust, cannot be determined. The social capital of active group membership was found to be positively associated with regional economic growth. Researchers' regional analysis does not help the argument that trust is positively associated with economic growth.

Casey (2004) used four indicators in his 1999 survey on the role of social capital in determining the role of social capital in the development of economic development between the southern and northern regions with more economic prosperity: urban participation, social / political trust, participation in voluntary activities and organizations, membership in professional associations and chambers of commerce. As indicators of economic performance, per capita income and unemployment indicators were used. As a result of the research, a powerful link was found between economic demonstration and trust. It was found that the level of confidence was highest in the southern regions and decreased to the north. There is no relationship between urban participation and economic outcomes. It is seen that urban participation is close to each other in all regions. There is a positive relationship among participation and attendance in voluntary activities and organizations in the southern regions. In sum, he found that there is a linear relationship between economic performance and social capital.

Clercq and Dakhli (2004) examined the impact of human capital and social capital on innovative activities in a total of 59 countries, including 30 European, 12 American, 3 African and 13 Asian countries. In the study, the WVS for social capital and the Human Capital index provided by the United Nations World Development Program for human capital were used. In countries where human capital has a high degree of

generalized confidence and institutional trust, the hypothesis that the innovation levels of countries will be high in that area is being tested. It is argued that highly generalized and institutional trust in work, collaborative activities and civil norms have increased the level of innovation of the country. The results provide evidence that human capital and, in part, trust and collaborative activities have a positive effect in supporting innovations, while there is a negative relationship between civilian norms and innovative activities.

In Peri's study (2004), she analyzed the effect of socio-cultural variables on economic performance in Italy between 1951-1991 using the OLS method. A low level of evidence indicates that social indicators such as work outcomes and public participation increase economic efficiency.

Baliamoune-Lutz (2005) examined the impact of social capital and institutions measured by alternative generalized confidence on economic development in 39 African countries using panel data from 1975-2000. Non-balanced steady-state effects and the results of the random effects model demonstrate that social capital has a strong positive effect on income. Furthermore, the interplay between social capital-institutional standard and social capital-human capital has a positive effect on economic growth. On the other hand, there is no independent effect on the economic growth of the institutions and even there is a negative effect. According to the results, social capital and institutions in Africa are complementary to each other.

Beugelsdijk and Schaik (2005) explained the relationship between social capital and economic development and regional economic growth for 54 Western European regions for the period 1950-1998. The results of the European Values Survey (EVS) to survey social capital and the social capital indices (trust and participation to associations) developed by the demographics of groups showed significant differences between regions, which resulted in a positive relationship between social capital and economic growth.

Jan Fidrmuc and Claritin to Gërxhani (2005) was conducted with survey method in 13 candidate countries in Europe to measure the levels of social capital in the country in 2004, research in the 15 member states of the European Union, including Turkey found. There was no question about trust in the questionnaire and the results of the trust in the World Values Questionnaire were used. According to the results of the study using the Logit model, it was found that the level of social capital is higher in the former member countries of the EU than in the new member countries. A social capital it was found that there is a strong correlation between the upper ranked countries in terms of other

indicators and the social capital indicators. In addition, the relationship between the level of social capital and demographic characteristics was also measured. Turkey, however, different than the difference between new and old members, even with the new member countries young population, large households, the excess of the unemployed population ratio is out of the workforce or in agriculture due to differences such as the low level of employment and education level were excluded from the analysis concerning demographic indicators. In this study, social networks and voluntary organizations are seen that Turkey's active participation in the last row direction. It has been achieved that the participation of young people and rural residents more in social networks, the increase of education level and income, and the increase in social capital level.

Iyer et al. (2005) deal with the relationship between social capital, economic growth and regional development. Eight regions of the USA were analyzed by logit regression. The study first focused on social capital relations, economic demonstration and regional development. The variables used are modeled as education, residence, age, income, housing, employment rate, urban-rural imbalance, ethnic differences and regional heterogeneity. As a result of the research, while education is highly correlated with social capital, age has a crucial influence on social capital. Ethnic differences and urban life have a negative impact on social capital.

Kaldaru and Parts (2005) examined the effect of macroeconomic social capital on sustainable economic development. The effect of social capital on economic development levels in 34 countries were analyzed by the OLS method and the variables used in the study are as follows: human capital, social capital and income inequality and resource redistribution, per capita GDP, human development index and net savings. As a result, it has been shown that these elements are positively influential on the economic development measured by the human development index.

In his research in Italy, Fabio Sabatini (2005) divided Italy into 20 regions and surveyed the relationship between economic development and social capital. The research is based on four main sizes of social capital and a collection of data about 200 indicators showing varied views of economic development. These four sizes of social capital are; powerful family ties which are regarded as binding social capital, low informal ties as bridging social capital, voluntary organizations as unifying social capital, and political participation. The data were taken from the Italian National Statistics Bureau, a multi-purpose survey of 20000 households between 1998 and 2002. Principal Component Analysis (PCA) was applied in the study. According to PCA, binding social capital and

active political participation are negatively associated with development, in contrast to bridge builder and unifying social capital. It has been found that the aggregator and the bridge building social capital are positively related. In particular, analysis has shown that there is a strong relationship between informal networks, voluntary organizations and social welfare. It has been measured that the southern regions of Italy have a high level of binding social capital and a low level of development, and bridging and unifying social capital at low levels. Development therefore has a negative relationship with positive family ties, positive relationships with unifying social capital, and bridging in the regions of Italy. Active political participation has no relation to social welfare. It has also been found that education is a strong correlation between interest, health system, welfare-enhancing work, and environmental protection, both social capital and development indicators.

In the Bjørnskov (2006) study, the life satisfaction of the social capital for a group of countries and the effects on the management were analyzed using the estimation method. In the Bjørnskov model, per capita income, trade openness, income inequality, inflation rate and unemployment rate were used variably. As a result of the study, it is seen that there is a positive effect on life satisfaction and management.

Garcia et al. (2006) is a theoretical and empirically detailed study of social capital and economic growth between OECD countries. They emphasized that social capital is essential for a healthy working economy. In their theoretical models, they tried to survey social capital with the factors that determine social capital. These factors are; the increase in income, the rate of depreciation in social capital due to the frustration brought about by the failure of positive expectations, cost of support and trust networks. The results of this study showed that social capital in OECD countries increased over time. Mankiw et al. (1992) model have shown that social capital can explain part of the economic growth in OECD countries. They found social capital's total production flexibility as 7-10%.

In the study conducted by Öksüzler (2006), social capital, trust, and determinants were analyzed by applying panel data analysis. The date of the 1990-1999 World Values Survey of EU member countries and per capita social confidence data for Turkey has analyzed the relationship between national income and found a positive result. Panel logit model was applied as another method. He has used some indicators such as income, education, age and city in his model. As a result of the analysis of social capital is the

most important factor that determines the education, and income, while important for EU member states, has been demonstrated to be an important indicator for Turkey.

Karagül and Dündar (2006) conducted an experimental study on the determinants of social capital using the least squares method. 45 countries were used in the model. In this research, the relation between human development index, social competitiveness level, justice level and income distribution, which affect social capital development and social capital, has been practically analyzed and it has been reached that the positive development in the mentioned factors makes a positive contribution to the progress of social capital.

Perez et al. (2006), the measurement of social capital and the growing relationship are discussed. In addition, theoretical models have been used to measure social capital by using indicators that determine social capital. Between 1970 and 2001, the analysis was conducted by applying panel data model for 23 OECD countries. The indicators used in the model are income increase, wage rate in social capital, cost of cooperation and widening of trust networks. As a result of the study, it is revealed that there is a positive relationship between social capital and economic growth.

Rupasingha et al. (2006) have been involved in the production of social capital in the United States. Indicators such as age, racial homogeneity, income disparity, schooling, and manpower attendance were associated with the level of social capital in the US and estimated by the OLS method. According to the study done, social capital conduces to the economic growth of the society.

Wolz et al. (2006), the relationship between economic performance and social capital is examined. The relationship between farmer incomes in the Czech Republic and social capital has been analyzed. As a result of the study in which the multiple regression model was applied, the level of agricultural income came out as an important factor determining social capital.

Woodhouse (2006), assessing Australia's relationship to trust-based social capital and economic development in two different cities, has supported the positive impact of social capital. A city with an upper level of social capital from two Australian cities with similar social, political, and geographical characteristics has been found to be more prone to economic growth than to the other, with an under the level of social capital, and to be further ahead of development.

In a study by Callois and Aubert (2007), the relationship between regional development and social capital indicators has been clarified. The relationship between

social capital and economic growth was analyzed by using the OLS method with the data obtained after the survey conducted between 1990-1999 for the four regions of France. Variables used in the analysis, the employment increase rate, industrial employment rate, housing employment rate, the ratio of qualified workers to unskilled workers were used as indicators. The study found that social capital is significant for growth both in the community and in the non-community.

In Özdemir's (2007) study, the relationship between social capital and knowledge creation was examined from a social network point of view. In the study, the questionnaire method was applied and as a result, the result of the relationship between social capital and information trend changed according to the study field characteristics.

Berggren et al. (2008), two separate periods and two separate countries, 1970-1992 and 1990-2000, were analyzed. 39 countries in the first process and 63 countries in the second process. As a result of the study, the relationship between trust and growth was found to be positive, but to decrease significantly.

Boulila et al. (2008) investigated the relationship between economic growth and social capital for 35 developed and developing countries in the 1980-2000 period. The findings of the study in which social trust is used as an indicator for social capital suggests that trust-based social capital in a positive and crucial way affects economic growth in a manner consistent with the literature. High confidence level indirectly affects economic growth by improving institutional quality.

Keskin (2008) conducted a survey on members of the Chamber of Commerce and Industry of Erzurum by analyzing the relationship between social capital and regional development. Trust has been used as an indicator of partnership and cooperation for formal and informal networks. As a result of the study, it is concluded that the social capital level of members of the Chamber of Commerce and Industry of Erzurum is at the middle level. A positive correlation was found between education level and social capital.

Dearmon and Grier (2009) surveyed the impact of confidence levels on economic growth for 51 countries using data from the WVS. Accordingly, the level of trust can indirectly affect economic growth both directly and through the physical and human capital.

The study of Dzialek (2009) focuses on the relationship between social capital and economic growth. Analyzes were made using the GDP per capita GDP growth data between 2000 and 2006 and the data from 2000-2007 using the OLS method. Indicators such as nets and trust for the Polish, in-community and out-of-species and community

networks have been used in the model. In the study, 66 regions of Poland were analyzed and the result was that social capital did not have any influence on the regional development level.

Erselcan (2009) worked the relationship between social capital and economic development. Data were obtained by questionnaire method and analyzed by applying variance analysis and logistic regression model. In Sivas, Kayseri and Yozgat provinces, the influence of social capital on the economic efficiency of SMEs operating in the manufacturing industry has been researched. As a result of the application, the productivity of the companies with high joint work area and low transaction cost due to the investment in social relations increased.

Neira et al. (2009) are on 14 developed OECD countries covering the period 1980-2000. It is stated that in the developed countries, the trust-based social capital may be a variable that can be used to explain the economic growth in the study where the model of the variables affecting economic growth is expanded by using the confidence variable.

Dinçer and Uslaner (2010) examined the relationship between economic growth and social capital on the level of trust. The study conducted for the US states has resulted in a positive relationship between trust and growth. The results of the study show that even in the higher-income countries, where property rights such as the United States and contractual rights are well protected, faster economic growth is achieved in regions with higher levels of confidence.

In the study carried out by Meçik (2010), social capital and the individual economic return of human capital are discussed. The empirical method has been used because of the data obtained from the questionnaire. In practice, Mincer type semi-logarithmic gain equation represents trust, norms, and participation in social networks as representatives of social capital whereas human capital represents education level and work experience as indicators. As a result of the implementation, variables concerned with social capital were found to affect the income of the individuals in the positive direction.

Baliamoune-Lutz (2011) reviewed the role of social capital in improving the growth effect of institutions in 39 African countries for the period 1975-2001. The empirical results of the study show that trust-based social capital affects economic growth and contributes to the effect of institutions on growth. Social capital and institutions have a positive effect on income, and between these variables, relations are not uniform.

Bjørnskov (2011) studied the relationship between social capital and corruption in 46 countries. EVS and WVS data for social capital change, and Transparency International, Heritage Foundation and Freedom House data for corruption indices. In the model he tested with two-tier least squares management, the author found a negative relationship between social capital and corruption. In other words, countries that are rich in terms of social capital have corruption, and countries that are poor in terms of social capital, corruption is high.

In the study of Çalışkan and Mecik (2011), an empirical study was carried out with the example of Eskişehir on the individual economic return of social and human capital. Mincer type semi-logarithmic model was used as econometric analysis. While explaining social capital through participation indicators in trust, norms and social networks, human capital represents indicators of education level and work experience. The level of education considered as an element of human capital has resulted in an important factor affecting individual earnings. Attributes, norms and trust dimensions to social networks, which are considered as components of social capital according to the results of implementation, are among the factors affecting individual gains. However, as in similar works, it has been concluded that the effect of the social capital components on the individual gains did not cause a meaningful and significant change in the city of Eskişehir.

In the study conducted by Özcan (2011), the relationship between social capital and economic development was examined in 46 countries. In the first part of the application, social trust and economic development relation were analyzed by a panel data model, followed by cross-section data analysis using social capital elements. As a result of the implementation, it has been found that there is a positive relationship between social trust and economic development.

Koç and Ata (2012) in the work they have done has been analyzed by an applied study on the relationship between economic growth, social equity EU countries and Turkey. The impact on economic growth, social capital in the study and the 2008 data for 27 EU countries, Turkey was tested by cross-sectional analysis method by using. As a result of the study, social capital has a positive effect on economic growth.

Dinda (2014) discovered how the inclusive economic growth could be achieved through human capital and social capital channels for 69 selected countries. In the study of human capital represented by the schooling rate and the level of trust of the social capital, a system in which the schooling rate is increased with increasing government

spending, the increasing schooling rate increases the level of social capital accumulation and increase and the resulting social capital and human capital accumulation increases the income level an internal economic growth model has been analyzed. The results of the study support the literature findings that economic growth may increase with the social and human capital accumulation channel.

Forte et al. (2015) have clarified the impact of social capital on regional economic growth through the European territories. They aimed to discover the relationship between social capital and regional growth on a broader scale by addressing the central and eastern European regions that were neglected in previous studies through the developments in data availability in their research involving 85 European regions for the period 1995-2008. The results of the survey on trust, active participation and social norms on social capital indicators emphasize the importance of the regional growth of social norms and confidence in active participation rather than other research conducted in the context of European regions.

CHAPTER 3

REGIONAL ECONOMIC GROWTH THEORIES

The notion of social capital, which gained weight in the economic literature since the 1990s, continues through the influence of social capital on economic growth, using neoclassical economic assumptions. The social capital approach that emerged from the beginning of the 1990s draws attention to the fact that if the differences in economic growth rates and development levels are explained based on the differences in the capital levels of the countries, they should be explained not only with physical and human capital but also with social capital.

3.1. Export-Based Theories

The export based theory argues that the economy of one country can be separated into two sectors: an export or basic sector and a non-export or non-basic sector (Tiebout, 1956). The basic sector, based on international trade, contributes to the local economy by accelerating the future economic development. It supplies consumption of basic goods and services. The external demand for the non-exportable goods and services of a region brings local economy income (Krikelas, 1992).

One of the uses of this theory is to determine the quantities of exported economic sectors and export sales. Development practitioners can identify the factors that affect export sales by determining exports. These practitioners can form strategies to protect the economy, strengthen and expand exports. In addition, by identifying the importing sectors, regional economies can form strategies that can reverse the dollar flow (Shaffer, 1989).

In short, this theory argues that the total economic activity in a relatively open area of trade, relatively large in other regions, will grow rapidly or slowly in response to changes in the export revenue of predominantly territories. In other words, income from all sources in the region is the most important motive power for regional economic growth.

3.2. Cumulative Causation

The first model of Kaldor, which has gone from the capital debate to the growth theory, is a theory of distribution and is based mainly on the Keynesian view that the investments are independent of saving. According to this view, which is also referred to as the "multiplier principle", investments and savings do not determine spending decisions, on the contrary, spending decisions determine the level of investment and savings realized in the economy (Kaldor, 1955).

Stylized phenomena exhibiting the typical characteristics of the Kaldor economic growth process are listed as follows:

1. Output per capita grows over time and this growth rate is not likely to fall.
2. The physical capital per worker grows over time.
3. The return rate of the capital is almost fixed.
4. The rate of output of the physical capital is almost fixed.
5. Stabilize the share of labor and physical capital in national income more or less.
6. The growth rate of output per worker varies considerably between countries (Kaldor, 1963).

Kaldor's inclusion of these stylized facts into the system is the aim that he seeks to investigate how these tendencies and regularities are determined by internal forces in the functioning of the capitalist system, and in this way the untapped neutral technological advance, the fixed return to scale and the possibility of individual substitution between capital and labor (Thirlwall, 1996).

In this context, it is another theoretical field of Kaldor's intensive effort to reformulate the externally determined and accepted data in neoclassical theory into a form of technical progress. It is intended to eliminate the artificial distinction that exists between the technical progress job and the job rotation of the entire job because of the technical progress and the movement on the function resulting from the changes in the relative price, which is implicit in the Kaldor production function. In other words, the technology factor, which is external to the neoclassical approach and causes the complete shift of function in case of any change, is included as an internal variable in Caldor's technical progress function.

Prior to being developed by Kaldor in cumulative causality thought, Veblen (1915) has evolved as Allyn Young (1928) and Myrdal (1957), who had earlier taught

Kaldor. Kaldor was particularly influenced by Young, especially his early career teacher. Young, while shaping his views, has made it clear that he is inspired by Adam Smith's essence: "Efficiency count on the partition of labor, and partition of the workforce on the shape of the market. As the market widens, productivity grows, and productivity growth extends backward beyond the market." Young has argued that this process is cumulative and reproduces itself as long as demand and supply are flexible (Thirlwall, 1996).

Myrdal was influenced by leading scholars of the Stockholm School, Knut Wicksell while using the cumulative causality principle. Myrdal spoke of Knut Wicksell in his Monetary Equilibrium and voiced his interest in using Lindahl in conjunction with Wicksell (Myrdal, 1957).

According to Myrdal, there is an *"extreme"* social relationship between the cumulative causality principle and the events that take place. Myrdal advocates the use of this principle as the basic hypothesis when working with countries or regional differences (Myrdal, 1972).

Myrdal explains the concept of cumulative causality in his book The Economic Theory and Underdeveloped Regions.

In describing the cumulative process, Myrdal described a situation in which, after a disaster in a region, the factories that lived in the region were burning down. This is the beginning of the *"bad end"* and the disappearance of factories that will create a "domino effect" will lead to the formation of an unemployed army. The unemployment experienced by the fact that the plants are lifted from the center will have other sectors, and there will be a demand contraction in the region. Unemployment will bring about the emergence of new unemployment and migration movements from this region to the other regions will begin (Myrdal, 1972).

Migration movements are the result of disasters and demanding regions will experience more difficult days in this region. Because the separation of these potential consumers from the region will bring a new wave of demand shrinking. In addition, the separation of people from the working age will also disrupt the demographic structure of the region; so that the age pyramid in the region will also be unbalanced. These *"unpleasant"* situations that live in the region will act on behalf of the preservation and restructuring of the administrative welfare of the region. This restructuring process will begin with the addition of heavy taxes to the people living in the area. The increase in tax revenues will lead to a decrease in income and a wave of migration in the region. In the

meantime, the tax rates will increase even more, as those who are not in the age of work or the poverty of the pensions will make public services more costly (Myrdal, 1972).

According to Myrdal, in order to avoid such *"unpleasant"* situations, the modern states, which are highly integrated, in good condition and rapidly advancing, prevent the cumulative social changes in the future, it is necessary to equip them with their own initiative.

Myrdal stated that the exact opposite of the above *"unpleasant"* phenomena would be experienced and explained this situation in the same book in the context of the cumulative causality principle. In this case, Myrdal underlines that things can go well. According to Myrdal, the cumulative process will only work well in such a situation. The decision to establish a factory in the region where any human community lives will be the beginning of the cumulative process and will accelerate this process. The establishment of a factory in the region will give a general motivation to the development of this area. It will create job opportunities and high-income chances for employees who have previously been unemployed or have low salaries. Local capital will be able to improve in response to the improvement of a request for its products and services. The workforce, capital, and entrepreneurship in this place will draw attention and allow opportunities to be further expanded. The establishment of a new business area or further enlargement of the existing business area will bring growth to the market; demand and income will increase accordingly. Increasing profits will increase savings, but at the same time, investments to ensure the level of profits and demand will continue to increase. Sustainable and well-going will create external economies to ensure the continuity of this process. The local tax rate can go down and the quality and quantity of public services will increase accordingly: these changes will encourage the entrepreneurship and production of the people there and the local financial resources will increase accordingly (Myrdal, 1972). According to Myrdal, these financial effects and entrepreneurial spirit can be taken as an example of the improvement of the taxation system and the elimination of regional inequalities across the country (Myrdal, 1972).

As explained above, Myrdal's perspective is clearly based on the balance of economic processes, and the small changes at the beginning show the characters of the cumulative causality principle over time, undergoing major changes. Myrdal applied the cumulative causality principle for regional growth processes and tried to explain the richer developed regions and the less developed less developed regions affected by the

interregional factors. The separation between these two regions is due to the delayed growth of less developed areas, which Myrdal calls backward impact.

3.3. Neo-Classical Growth

The Neoclassical growth model was developed by Solow (1956) and is conceived to demonstrate how growth in capital stock, growth in labor, and developments in technology interact with each other and how it affects economic growth in a country. Unlike previous growth models, the Solow model was quite effective because it contained a liberal approach that almost reversed the role of the state in the economy, and was an alternative to Harrod-Domar (H-D) growth models.

The Solow Model is a model of growth that opposes the H-D model, and thus the economic public intervention, and is referred to as the neoclassical growth model (Buttrick, 1958). Solow argues that the H-D model describes an important equilibrium and that stable growth can occur if production is based on fixed returns and varying factor rates (McCallum, 1996).

According to the model (Solow, 1956):

1. The homogeneous single product is produced and consumed in the economy. This product also constitutes the GDP of the country at the same time.

2- The economy is all the time on the level of possible output and full employment, and the market mechanism is working correctly.

3- Savings and investments are the same, so there is no need to put a distinct investment function into the model.

4- Labor is growing at a constant rate, initially there is no technological improvement and the level of technology is stable.

5- Labor force is a constant rate of population.

6- Under market situations, labor and capital can be replaced for each other. Therefore, capital per labor (K/L) can be increased or decreased.

7- In the model the convergence hypothesis is available. Under the similar situations, underdeveloped countries grow faster than developed countries.

8- Externalities do not affect the economy.

In the Solow model, capital (K) and labor (L) use the production function of inputs. The Solow production function can be expressed with the aid of the Cobb-Douglas production function:

$Y = F(K,L) = AK^{\alpha}L^{1-\alpha}$

Where Y is output or income, K is the capital, L is the labor, A is the level of technology, and the coefficient a gives the elasticity value of capital and 1-a gives the elasticity value of labor. The production function is based on a fixed return assumption on a scale. That input is increasing at the same rate of output increased at an equal rate.

Besides the Solow model, as a new wave in the field of growth theories emerged endogenous growth analyzes, in these new analyzes it has been the subject of the connection of the growth to the internalized concepts and the proposals opening the state's intervention in the economy began to be introduced.

3.4. Endogenous Growth Theories

Endogenous growth theories argue that the main driving force for the sustainability of growth in the R&D sector. Although there are many studies on the subject, the three most important approaches are the model of Paul Romer (1990); model of Grossman and Helpman (1991); model of Aghion and Howitt (1992). These models include AR-GE activities, is a growth model based on human capital and new products produced in this sector. In the long run, not only the level effect of the economy but also the persistence the impact of growth depends on the number of researchers the economy transfers to this sector. The determinant of this is the economic growth rate as new products and technologies are created by transferring the products and technologies to the R&D sector. According to the model, economic growth; human capital, innovation, public investments, and knowledge are important and key components (Romer, 1986).

3.4.1. Romer’s Model

At the center of the Romer’s model is R&D activities. Human capital employed in the R&D sector and new product or production techniques produced by the same sector constitute this model. In an economy, the amount of inputs that make up the human capital and the transfer of these resources to the R&D sector, the development of new information and technologies determines the speed of economic growth (Romer, 1990). Romer's model has three main points. First, there is technological development at the center of

economic growth. Second, technological development takes place with firm decisions. Third, and most importantly, the use of knowledge as a factor of production.

The most important feature of the model is that the increase in goods differentiation and inter-country trade creates growth effect besides income. A larger market leads to more research and more rapid growth. In the Romer model, the measure of the market size is not the population but the human capital stock.

According to Romer, low-level human capital helps explain why growth in underdeveloped economies, which are closed economies, cannot be observed. The most striking feature of the Romer model is that it will see a faster growth in economies with more total human capital (Romer, 1990).

3.4.2. Lucas' Model

Lucas models the theory of internal growth, the accumulation of physical capital, and its role in the economic system with the help of a traditional neoclassical production function (Lucas, 1988). Under the assumption of a closed economy, human capital in the single-sector model increases the productivity of both labor and physical surplus, and in a stable situation, the marginal return of the physical capital is fixed. Even if countries reach the same growth rates in the long run, regardless of the initial distribution of capital stock, the position of poor countries will not change due to the level of initial capital.

Lucas criticizes the two basic frameworks of the Neo-Classical Model. The first is the inability to identify the differences observed across countries. Second, contrary to the strong assumptions of the neo-classical theory, international trade has not triggered a rapid trend of equalizing labor-capital ratios and factor prices. Lucas regards human capital as crucial as the trigger of his growth (Lucas, 1988).

3.4.3. Grossman and Helpman's Model

Within the multi-country, dynamic general equilibrium model in the Grossman and Helpman models; the first is the traditional product, the second is the industrial product and the third is R&D activities that provide the development of the industrial product through knowledge production are the basic production activities (Grossman and Helpman, 1991).

It is important that capital accumulation in the Endogenous Growth Model includes human capital as well as the physical capital, causing an increase in the income per capita. It is an important development to abandon the assumption that the capital in the Neoclassical Theory is decreasing from here. In addition, the endogenous variables lead to an increase in productivity by providing externality in the model. Another important feature is the existence of imperfect competition markets. Because there is no room for full competition in economic life. Markets continue to operate under optimal conditions. For this reason, human capital, knowledge accumulation and technological development; it is the foundation of the Endogenous Growth Model.

3.5. New Economic Geography

In recent years, most economic activity seems to concentrate in certain geographical regions. The concentration of economic activities as settlements in certain regions has been an important issue for geographers and economists. The approach emerging by Paul Krugman in the 1990s, taking account of the spatial features of the economy using increasing returns and models of imperfect competition is called the new economic geography (NEG) approach (Kum, 2011).

This new economic movement consists of two approaches. The first approach seeks to clarify the distinctions in economic development among various places, under various differences specific to these locations. This approach follows a relational method, like the trend of countries in tropical climates to have lower per capita incomes or larger cities with rich harbors to show less economic growth. The second approach typically explores why regions are different, even when regions do not have a particular advantage or disadvantage (Krugman, 1998).

The gathering of the population in the developed countries in the metropolitan areas results in an increase in the concentration of the service sector in these areas and also in the fact that these regions become an important trade center. The new economic geography approach also questions this geographical distribution of economic activities.

The new economic geography is an economic model that attempts to clarify the located structure of the economy, trying to clarify the market character by using techniques and methods thanks to increasing income. (Krugman, 1998).

There are centripetal forces that cause economic activities to gather in certain places and centrifugal forces that lead to different places. The foundations of the theory

are compounded by these centripetal and centrifugal forces that can be seen in the entire accumulation economy (Krugman, 1998). These opposite effects on the accumulation and concentration of economic activities are tabled (Table 3.1).

Table 3.1. Forces Affecting Geographical Concentration
(Source: Krugman, 1998)

Centripetal Forces	Centrifugal Forces
Market size effects	Immobile factors
Thick labor markets	Land rents
Pure external economies	Pure external diseconomies

Centripetal forces are the Marshallian sources of external economies. A large local market can create backward and forward links. The backlink effect is the preference of places that provide easy access to large markets in the production of goods, depending on scale economies. The forward link effect is that a large market can reduce costs for local producers and increase the local production of intermediate goods. Industrial concentration intensifies the labor market, especially based on expertise. In such a labor market, both the employer and the worker can work with the employer he wants. The local concentration of economic activity can also create external economies through information exports (Kum, 2011).

Centrifugal forces are useful even though they are less standardized. For immovable factors such as land and natural resources, both supply and demand may come up against each other. Because while it is necessary to take workers to some production regions, close to the consumer will be an incentive for the market. The geographical concentration of production raises rents as demand increases. This creates a discouraging effect in the event of further condensation. In such a congestion, the concentration economy produces a less positive external economy (Krugman, 1998).

There are three basic models in the New Economic Geography; center-periphery, region-city and international trade relations (Fujita and Mori, 2005).

3.5.1. Center-Periphery Model

This model, increasing returns on a company level, factor mobility between transportation costs and the emergence of spatial economic structure interaction and illustrates how the change caused (Krugman, 1991).

The main objective of the center-periphery model, increasing returns at the firm level, the interaction between transportation costs and factor mobility, how to create a spatial economic structure and reveals that this structure in terms of what has changed (Fujita et al, 1999).

According to the model, the dispute among centripetal and centrifugal forces determines the center-periphery structure. Transportation costs act a crucial part like a variable of geography and determine the accumulation or spread. The centripetal force in the model is the market size and cost of living. In the two-zone model, firms prefer to operate in regions where workers are more likely to work, while workers prefer regions that are more concentrated in firms where living costs are lower. Centrifugal forces are concerned with competition. The more the company is located in the central region where it is stacked, the more competition and therefore the lowering of prices, which causes firms to move around the periphery. Transportation costs at this point are determined by the concentration of the industrial sector in the central region (Fujita et al., 1999; Garretsen and Martin, 2010).

As a result, when the centripetal forces are larger than the centrifugal forces, the industrial sector is concentrated in a single region and the center-periphery structure is formed (Fujita and Mori, 2005).

3.5.2. Region-City Model

In the model, the spatial area is defined as a line in which the land is evenly extended. Whole labors in the economy have the same qualities. Both labor and land factors are used in the production of agricultural goods. It is also assumed that transportation prices are positive for agricultural and industrial commodities. Existing model, agricultural land, the source of centrifugal forces, is the only constant factor. A different assumption of the model than other models is related to population density. Population growth increases local demand for agricultural areas and it is more profitable to settle in these areas than in cities. Eventually, population growth causes new cities to

form. In this case, the market is important in determining the position of potential economic activity. Given the reconsidered centripetal and centrifugal forces, the model's proposition is that, despite all the possible different equilibrium settlements, the spatial structure has a hierarchical arrangement as in the Central Places Theory (Fujita, 2010).

3.5.3. International Trade Model

Unlike the other two models, this model explores the reasons for the geographical accumulation of specific industries. In the model of the accumulation of industries dealt with in the context of international specialization and trade, the labor factor is now considered to be stationary among countries (Fujita and Mori, 2005).

In addition to the assumptions of Christaller, Lösch, and Henderson, the New Economic Geography model adds to product-input diversification. However, Christaller's central point is that the exchange between returns and transport prices in locality theory is linked to the cumulative process of industrial zones.

3.6. Growth-Pole Theory

Among the economic theories of Gunnar Myrdal, the *"Theory of Polarization"* took an important place. This theory has been criticized by many economists who have been working on inter-country or inter-regional imbalances. Although there are many different definitions of the theory's disclosure, it seems that the views of economists are similar.

The concept of the growth pole was introduced by Perroux in 1949. It is a theory that reduces the problem of inequality to the national level of the region, emphasizes the importance of major regional centers for development, and seeks policies to equalize the distribution of income among the regions, giving the link between urbanization and development (Alonso, 1968).

According to Perroux, growth poles can be a company or industry groups. Change and growth are initiated at these poles. Relationships between the poles convey the forces created by the input and output currents. The most important element in regional growth is the mutual interaction between the key industries that have created the core of

the development pole. Key industries have distinctive features (Richardson, 1970). First of all;

1. Higher concentration points,
2. There are a significant multiplier and polarization effects. Most of the inputs are available from that area.
3. They are in advanced technology and management level.

In the theory of growth pole, it is a very important feature that a company or an industry dominates according to other firms or industries. The dominant industry or firm attracts most of the industry or firms around it.

CHAPTER 4

EMPIRICAL ANALYSIS AND RESULTS

The first step in our empirical analysis is to measure the social capital. In order to do so, we use a range of variables to construct social capital indexes for 81 provinces. Social capital is measured in three different variables which are *SC_trust, SC_norms, and SC_participation.*

To start with, SC_trust is designed to capture the level of trust among individuals in a region. It is an index number constructed by using 5 different variables; job satisfaction rate of individuals in a region (%), the satisfaction rate of social relations (%), returned check ratios (%), debt collection ratios and satisfaction rate of social life (%). These variables are firstly converted into relative values by dividing each region's value into the cross-regional average value. So, the average region takes the value of 1. Following this, the average value of variables has been calculated for each region. Hence, *SC_trust* variable represents relative level of trust in regions. Thus, those regions which have the value above (below) 1 are referred to as relatively having more (less) trust ties.

Therefore, the regions which have a higher satisfaction rate in social relations, work, and social life, higher ratios of check and debt re-payments are probably to have a superior level of social trust.

SC_norms and SC_participation variables are calculated with the same procedure but using the different set of variables which are listed in Table 4.1. below.

4.1. Descriptive and Exploratory Analysis

Having calculated the values for each social capital, we, now, summarize their basic statistical properties in Table 4.2. Since they are the variables defined in relative sense, the mean values are 1 as expected. The maximum-minimum values (range) and SD (standard deviation), however, provides more information on the disparities in social capital. The values range between 0.88 and 1.11 for norms, 0.75 and 1.54 for participation and 1.14 and 0.83 for social trust. Hence, greatest disparities are observed in social participation across provinces. The SD values support this observation as Participation's SD value (0.1) is twice bigger than the trust (0.06) and norm's (0.05) value.

Table 4.1. List of Variables used to construct social capital variables

Variables	It is Constructed from the Following Variables:	Number of Provinces	Year	Source
SC_trust	Job satisfaction rate (%)	81	2015	TURSKSTAT
	Satisfaction rate with social relations (%)	81	2015	TURSKSTAT
	Returned check (%)	81	2015	CBRT
	Debt collection ratio (%)	81	2015	CBRT
	Satisfaction rate with social life (%)	81	2015	TURSKSTAT
SC_norms	Job satisfaction rate (%)	81	2015	TURSKSTAT
	Satisfaction rate with social relations (%)	81	2015	TURSKSTAT
	Percentage of households having noise problems from the streets (%)	81	2015	TURSKSTAT
	Murder rate (per million people)	81	2015	TURSKSTAT
	Number of traffic accidents involving death or injury (‰)	81	2015	TURSKSTAT
	Percentage of people feeling safe when walking alone at night (%)	81	2015	TURSKSTAT
SC_participation	Voting in local administrations (%)	81	2015	TURSKSTAT
	Rate of membership to political parties (%)	81	2015	TURSKSTAT
	Percentage of persons interested in union/association activities (%)	81	2015	TURSKSTAT
	General Election Participation rate (%)	81	2015	TURSKSTAT

To investigate more in detail the distributional properties of these variables, we have calculated the skewness and kurtosis values. In terms of skewness, while social norms and trust display a negative and milder skewness, (-0.07 and -0.28 respectively), participation has a positive and a much greater value (1.4) which shows once more it extends of its dispersed (heterogeneous) distribution.

To deal with this issue more formally, we apply a Jarque Bera test to understand whether or not the types of the social capital exhibit a normal distribution across provinces. We observe that Jarque Bera test statistic is significant only for the SC_Participation variable. It actually means that SC_trust and SC_norms variables are normally distributed while SC_Participation is not.

Moreover, we estimate and depict the Kernel density distributions of the variables in Figure 4.1. Similar to what we find in Jarque Bera test, social trust and norms seem to follow a clear normal distribution while social participation has relatively a more dispersed distribution.

Table 4.2. Descriptive Statistics of Social Capital Variables

Indicators	SC_Norms	SC_Participation	SC_ Trust
Mean	1,000	1,000	1,000
Median	0,997	1,010	0,995
Max	1,111	1,544	1,138
Min	0,881	0,755	0,828
SD	0,054	0,109	0,064
Skewness	-0,069	1,376	-0,278
Kurtosis	2,226	9,561	3,150
Jarque-Bera	2,086	170,857	1,122
Probability	0,352	0,000	0,571
Observations	81	81	81

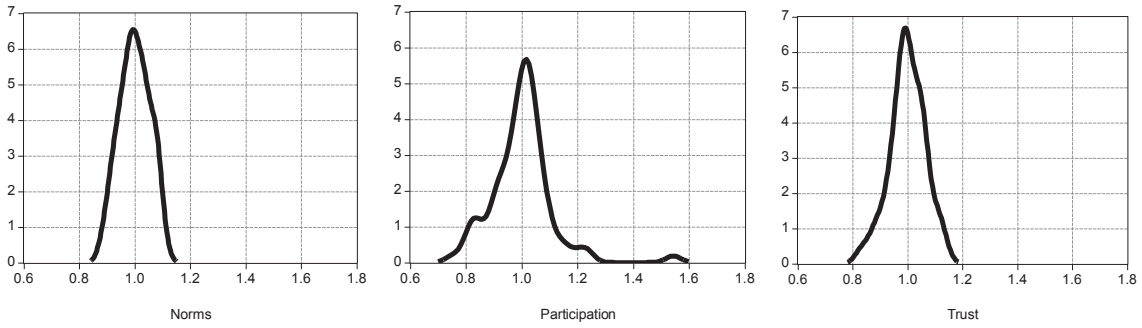


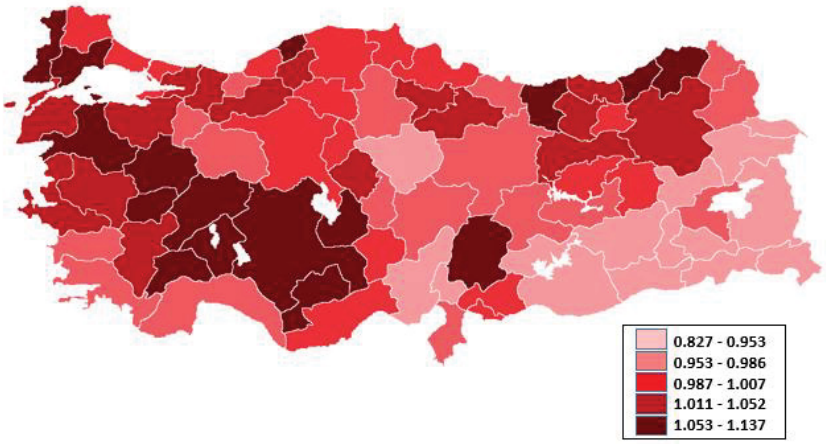
Figure 4.1. Kernel Probability Density Estimations

The maps that illustrate the values for each social capital variable are presented in Figure 4.2. Trust and norms exhibit a similar picture, but the social participation seems to have quite different dynamics.

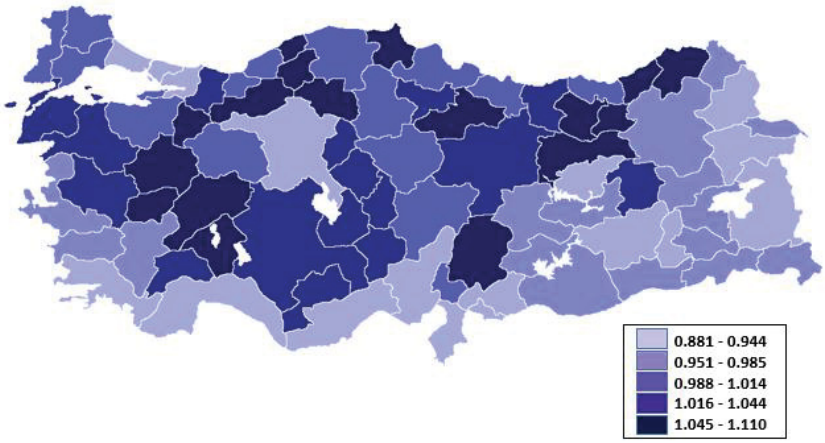
In terms of trust and norms, Midwestern Anatolian provinces and the ones in Black Sea region have the highest level of social capital whereas the provinces that lie along the southern Aegean and Mediterranean region and South Eastern provinces have the lowest scores of social trust and norms.

On the other hand, in terms of participation, industrialized provinces in Central and East Marmara, Northeastern coastal provinces, Mid-Eastern Anatolian provinces (such as Sivas, Kayseri) exhibit the highest scores. Similar to what has been observed for

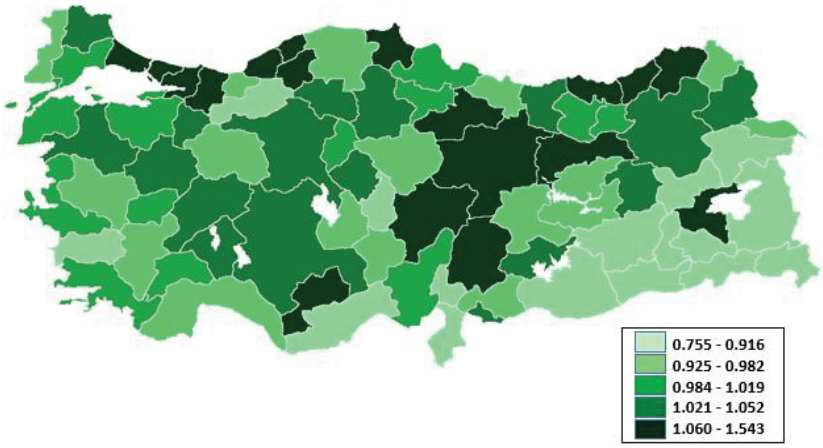
trust and norms, provinces along the Southern Aegean and Mediterranean region and South Eastern provinces have the lowest scores of social participation.



4.a. Trust



4.b. Norms



4.c. Participation

Figure 4.2. Geographical Distribution of Social Capital Variables

Overall, the main message conveyed in this section is that social capital differs considerably across regions, particularly in social participation to the formal/informal networks. Explanation of the observed patterns are hard which requires deeper empirical investigation which is a subject of the next sub-section.

4.2. Econometric Model

To investigate the determinants of cross-sectional variation in social capital and possible two-way relationship among economic growth and social capital, we use the following simultaneous equations:

$$\boldsymbol{SC_i} = \gamma_0 + \gamma_1 growth_i + \gamma_2 unemployment_i + \gamma_3 educationquality_i + \gamma_4 bachelor_i + \gamma_5 householdsize_i + \gamma_6 income_i + \gamma_7 incomedistr_i + \gamma_8 life_i + \gamma_9 nmr_i + \gamma_{10} pop_i + \gamma_{11} popdensity_i + \gamma_{12} poverty_i + \gamma_{13} healthservices + \gamma_{14} green_i + \gamma_{15} young_i + \gamma_{16} electricity_i + \exists_i$$

$$\boldsymbol{Growth_i} = \gamma_0 + \gamma_1 SC_i + \gamma_2 pop_i + \gamma_3 educationquality_i + \gamma_4 employment_i + \gamma_5 electricity_i + u_i$$

The definition of the variables used in the above regression equation is explained in detail in Table 4.3. The variables are the ones which are mostly used in the existing literature.

In terms of empirical strategy, we follow a three-step approach. First, we estimate the two models separately by using an OLS technique. Second, by considering the fact that the two equations should be simultaneously estimated, we employ a three-stage least squares model and finally, we test the robustness of the results by allowing for a spatial dependence in error terms and use a Spatial Error Model. Spatial weight matrices are in the form of inverse distance and raw standardized. We obtained the distance matrices from General Directorate of Highways in Turkey. We estimate all our models for 3 types of social capital variables (dependent variables: SC_Trust, SC_Norms, SC_Participation)

In regression estimations, we determine a base model (which is always model 1 in the first column), then add one-by-one our test variables. In case one of test our variables have a high covariance with a variable in the base model, we discard that variable in the base model in order to avoid a multicollinearity problem.

Table 4.3. Definition of variables used in regression analysis

Variable Name	Definition/Formula	Spatial Units	Year	Source
SC	Social Capital as defined in three forms in Table 4.1	81	2015	TURSKSTAT
growth	[GDP (2014-2004)/2004/10]	81	2004-2014	TURSKSTAT
young	Young population/Province population	81	2015	TURSKSTAT
pop	Population	81	2015	TURSKSTAT
householdsize	Large family household/Province population	81	2015	TURSKSTAT
popdensity	Population by km2	81	2015	TURSKSTAT
bachelor	Percentage of higher education graduates (%)	81	2015	TURSKSTAT
nmr	Net migration rate (‰)	81	2015	TURSKSTAT
employment	Working population/Active population (15-64 Years)	81	2015	TURSKSTAT
unemployment	The ratio of the unemployed population to the workforce (%)	81	2015	TURSKSTAT
incomedistr	Percentage of households in middle or higher income groups (%)	81	2015	TURSKSTAT
poverty	Percentage of households declaring to fail on meeting basic needs (%)	81	2015	TURSKSTAT
life	Life expectancy at birth (Year)	81	2015	TURSKSTAT
educationquality	Average points of the transition to higher education examination	81	2015	TURSKSTAT
healthservices	Number of applications per doctor	81	2015	TURSKSTAT
income	GDP distribution by provinces	81	2014	TURSKSTAT
electricity	Electricity consumption per capita in the industry (kWh)	81	2015	TURSKSTAT

In terms of growth, the highest scores (0.24 - 0.31) in 2015 are seen mostly in Turkey's eastern provinces. The places where the lowest scores (0.15 - 0.20) are clearly visible, especially, the seaside of the Aegean and Mediterranean provinces (Figure 4.3).

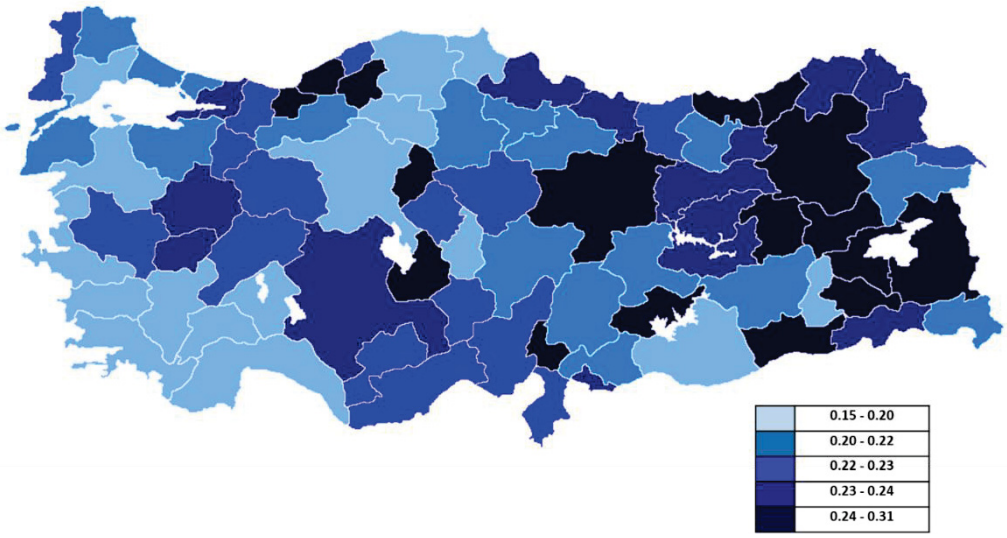


Figure 4.3. Geographical Distribution of Growth, 2015

According to the bachelor degree, provinces with the highest scores (13.69 - 21.51) are especially western cities of Turkey. Especially, the Aegean and Mediterranean

coasts have the highest rates. The lowest scores (7.44 - 10.25) are seen in most of the eastern and southeastern Anatolian provinces (Figure 4.4).

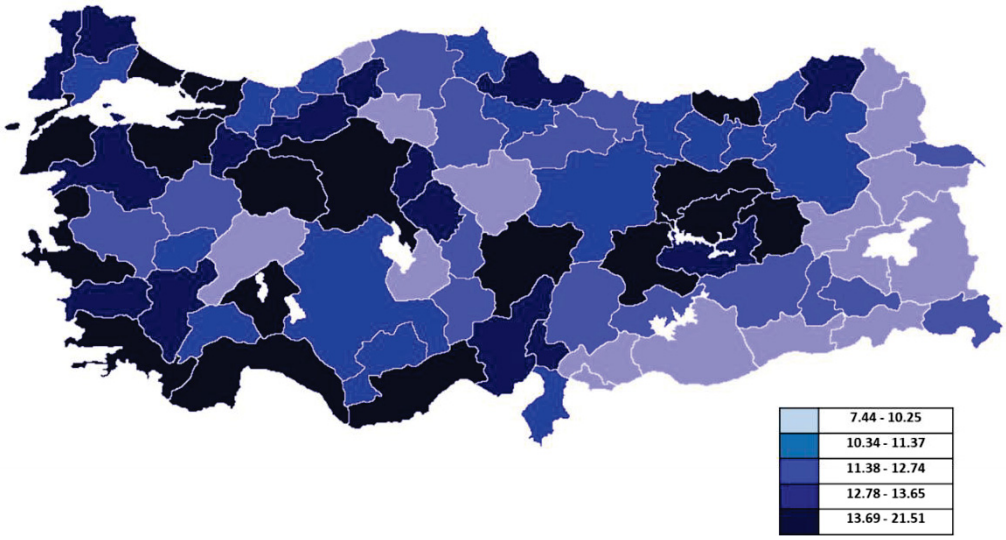


Figure 4.4. Geographical Distribution of Bachelor Degree, 2015

When we look at the distribution of electricity usage by provinces, high scores (1.62 % - 4.80 %) are seen in the fact that the industry has developed. The provinces where electricity use is lowest scores (0.006 % - 0.23 %) are Eastern and Southeastern Anatolia Regions. In the eastern part of the Black Sea, low scores are also striking (Figure 4.5).

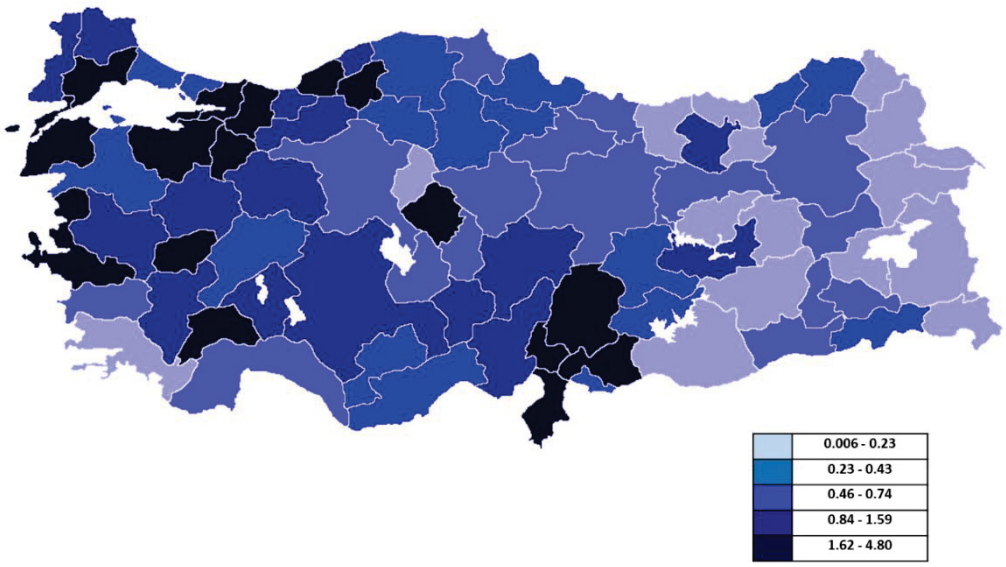


Figure 4.5. Geographical Distribution of Electricity, 2015

When we examine the distribution of life expectancy, the places with the highest scores (78.85 age - 80.50 age) are the Mediterranean and eastern Black Sea coastal provinces. Whereas, we can see, the lowest (74.96 age - 77.48 age) life expectancy provinces are the Marmara region except İstanbul and the border of Eastern Anatolia (Figure 4.6).

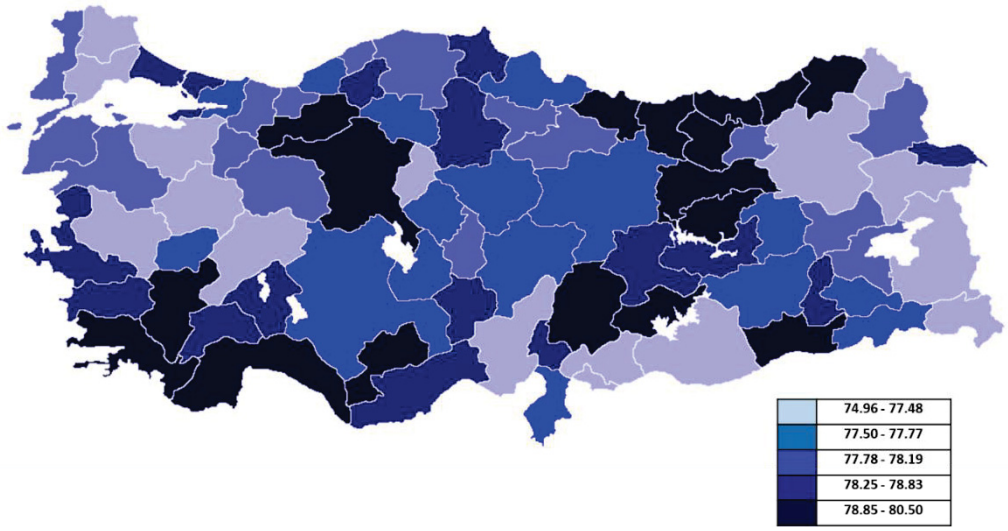


Figure 4.6. Geographical Distribution of Life Expectancy, 2015

When we look at the highest (10.4 % - 23.4 %) unemployment rates, the Southeast Anatolia Region has the highest scores. The lowest (4.2 % - 6.2 %) unemployment rates are the Inner Aegean and southern provinces of Inner Anatolia Region (Figure 4.7).

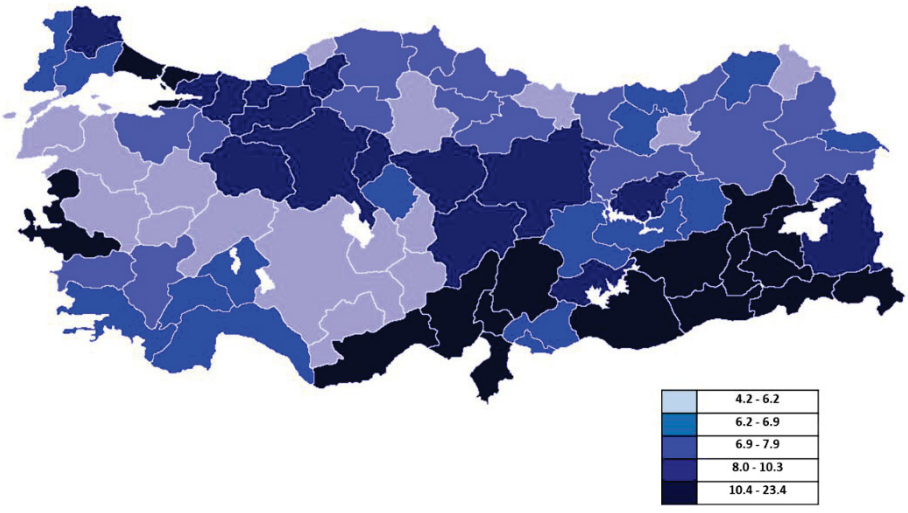


Figure 4.7. Geographical Distribution of Unemployment Rate, 2015

In terms of income, we can say that it is inversely proportional to the unemployment rate. Especially in the Southeastern Anatolia Region where the unemployment rate is the highest, the income rate has the lowest rate of income (8.70 - 13.73). As a matter of fact, the provinces Eastern Anatolia have low scores. The places with highest income distribution (24.36 – 43.65) are in the most developed regions of the industry and service sector, especially in big provinces (Figure 4.8).

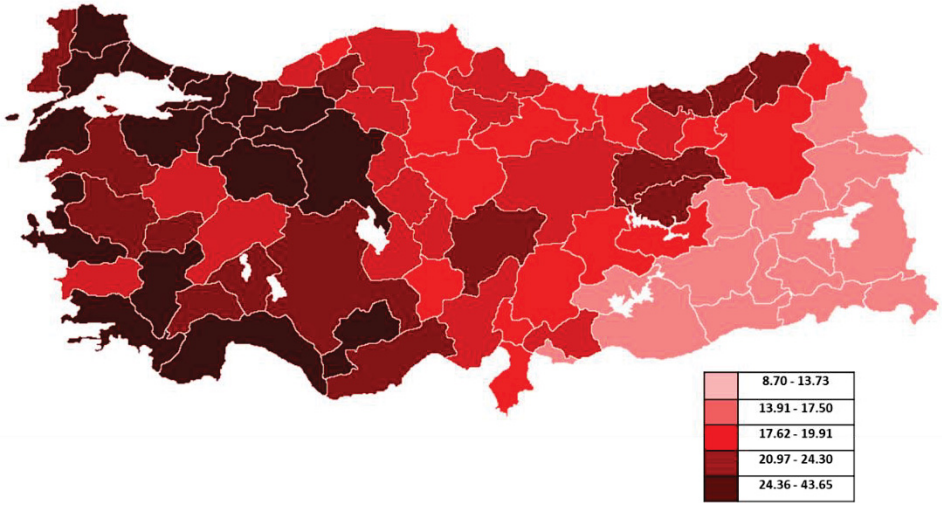


Figure 4.8. Geographical Distribution of Income, 2015

When we look at the distribution of net migration rate, the lowest scores (-37.09 ‰ - 9.66 ‰) belong to Eastern and Southeastern Anatolian provinces. In contrast, around the big provinces have the highest scores (6.80 ‰ - 121.52 ‰) (Figure 4.9).

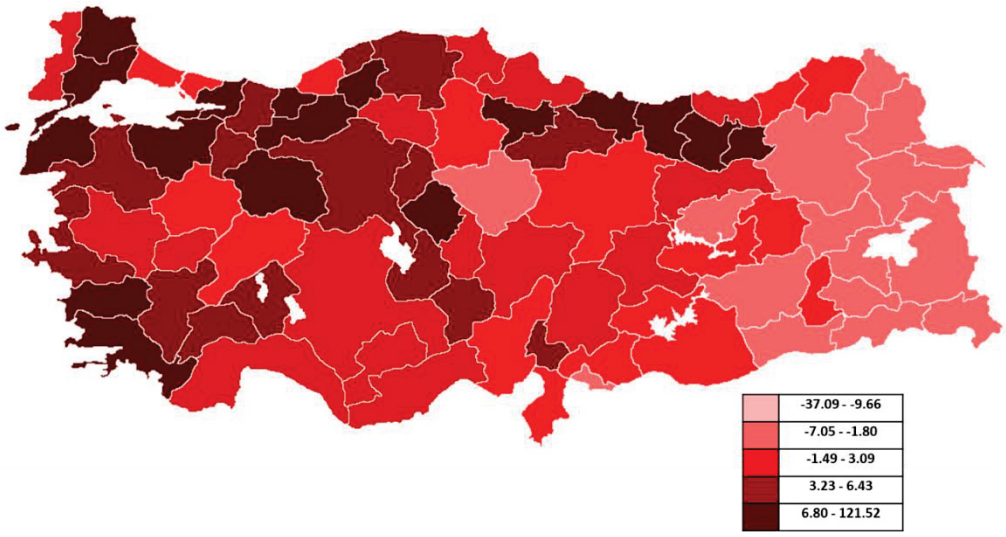


Figure 4.9. Geographical Distribution of Net Migration Rate, 2015

When we look at the distribution of poverty, the highest scores (59.69 % - 74.95 ‰) are the provinces in the Eastern and Southeastern Anatolia Regions. Whereas, the lowest scores (32.78 % - 43.75 %) are in inner parts provinces of Turkey (Figure 4.10).

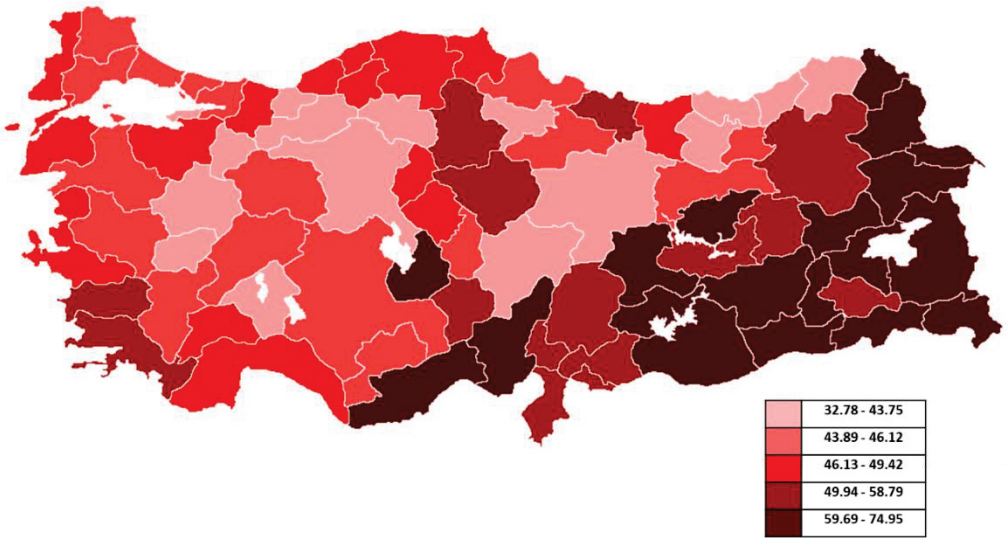


Figure 4.10. Geographical Distribution of Poverty, 2015

If we look at the distribution of young population, the highest scores (20.1 % - 26.63 %) are seen in the Eastern and Southeastern Anatolia Regions. The lowest scores (13.29 % - 15.01 %), we can say that Turkey's coastal provinces (Figure 4.11).

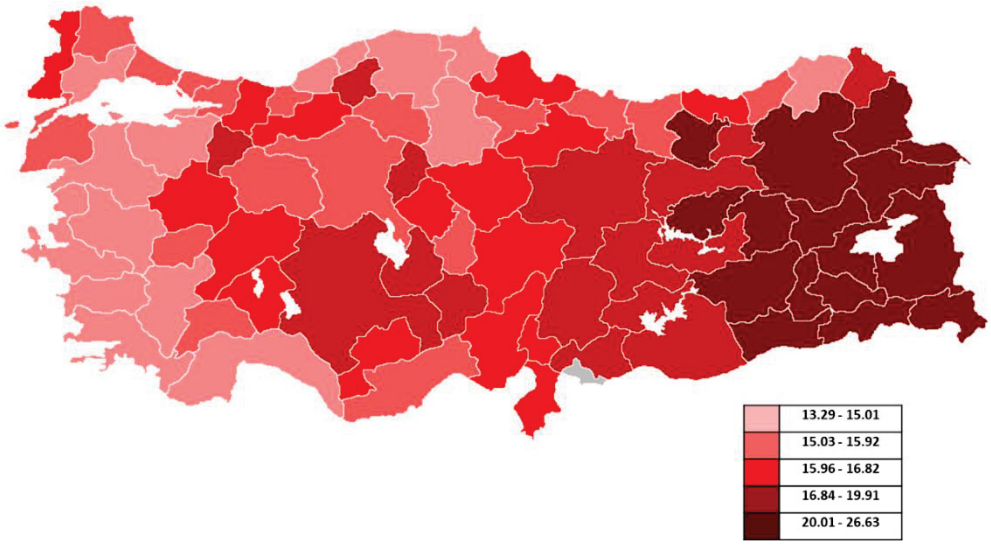


Figure 4.11. Geographical Distribution of Young Population, 2015

We can say that when we examine the income distribution, it takes high scores (39.35 % - 58.91 %) in the industrial and big provinces and their surroundings in Turkey. While

low scores (16.27 % - 27.95 %) are concentrated in the Eastern and Southeastern provinces in general (Figure 4.12).

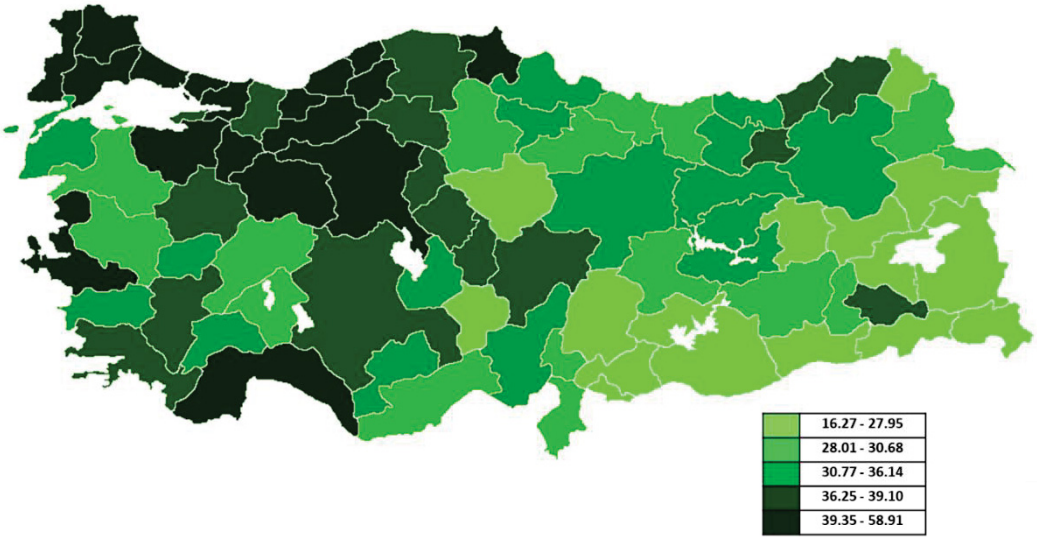


Figure 4.12. Geographical Distribution of Income Distribution, 2015

We examine the distribution of population in Turkey, provinces where the population is high (1.186.69 m – 14.657.43 m) are generally those in which many different sector, especially industry. Where the population has a low score (78.55 - 242.19), we can say that Eastern Anatolia Region and western part of Black Sea provinces (Figure 4.13).

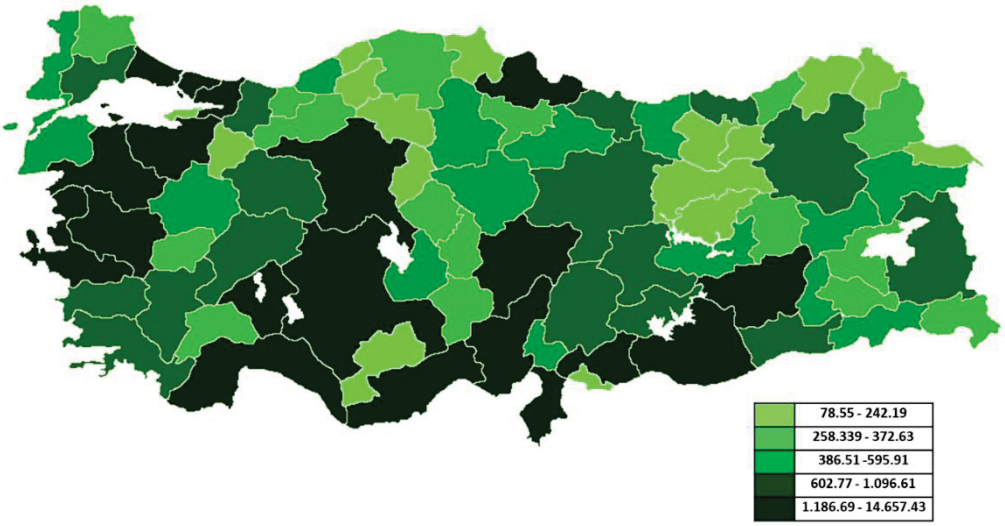


Figure 4.13. Geographical Distribution of Population, 2015

The places where the population density is high scores (134.18 - 2.820.91) are the big provinces and their surroundings. Whereas, where the population density is low scores (11.58 - 35.24) we can say Eastern Anatolia Region and east part of Central Anatolia Region (Figure 4.14).

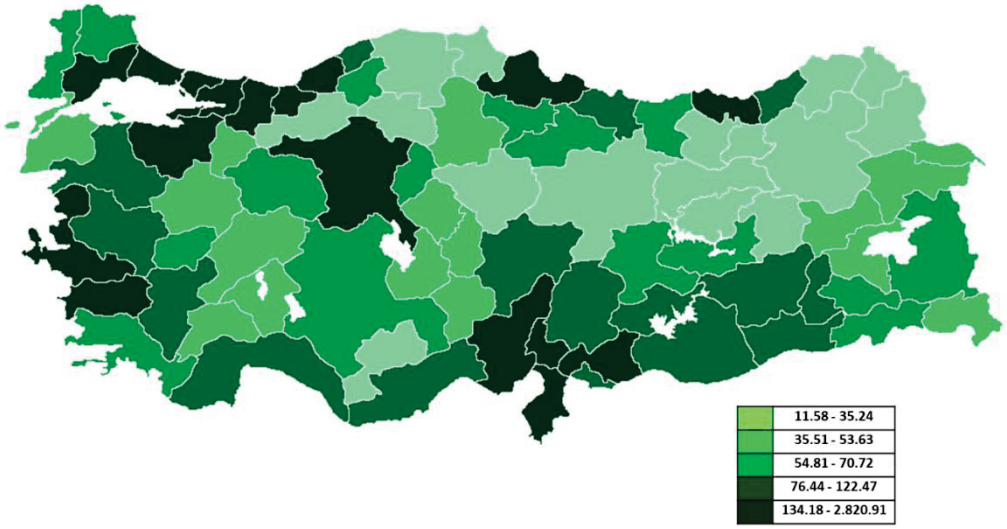


Figure 4.14. Geographical Distribution of Population Density, 2015

When we analyze the distribution of health services, the distribution of provinces with the highest (7001.22 - 8067.42) and lowest scores (2763.26 4469.91) are heterogeneous. Therefore, it is not possible to comment from a regional point of view (Figure 4.15).

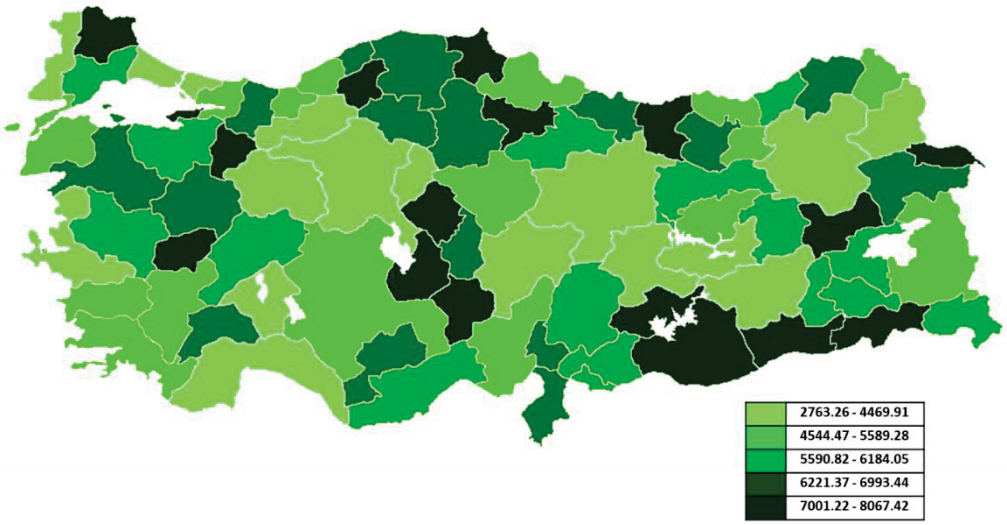


Figure 4.15. Geographical Distribution of Health Services, 2015

When we examine the quality of education, we can say that the highest scores 202.14 point - 207.95 point) are the Aegean and Mediterranean coastal provinces and the southern provinces of Central Anatolia Region. The lowest scores (178.60 point – 194.48 point) are generally seen in Eastern and Southeastern Anatolia provinces. The low rate in Ankara is also remarkable (Figure 4.16).

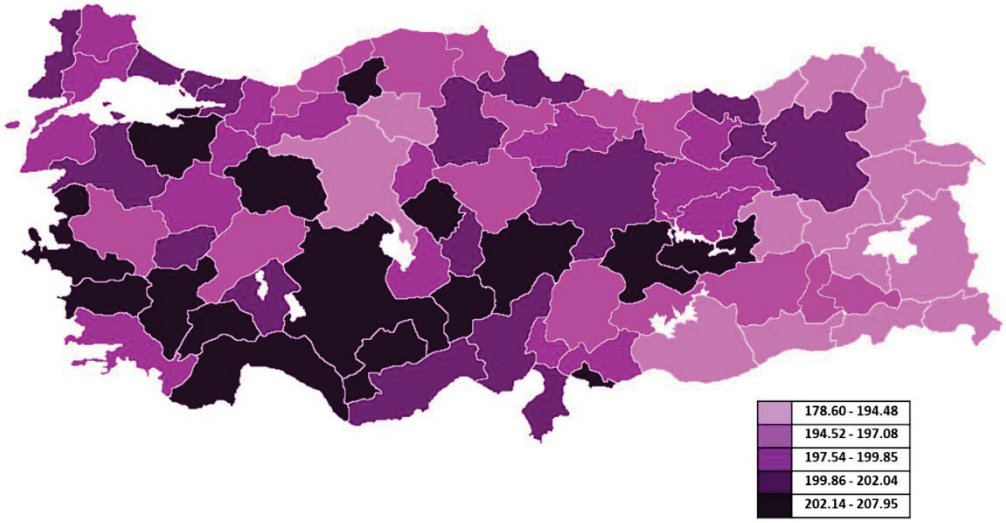


Figure 4.16. Geographical Distribution of Quality of Education, 2015

When we examine the employment rate, we can say that the provinces with highest scores (50.8 - 59.1) are especially in the Aegean Region provinces. Besides, other highest scores are seen in the west Mediterranean provinces, Trace provinces, the east of İstanbul and the East Black Sea provinces. The provinces with the lowest (27.8 - 41.5) employment rate, especially Southeastern Anatolia provinces and Central Anatolia provinces (Figure 4.17).

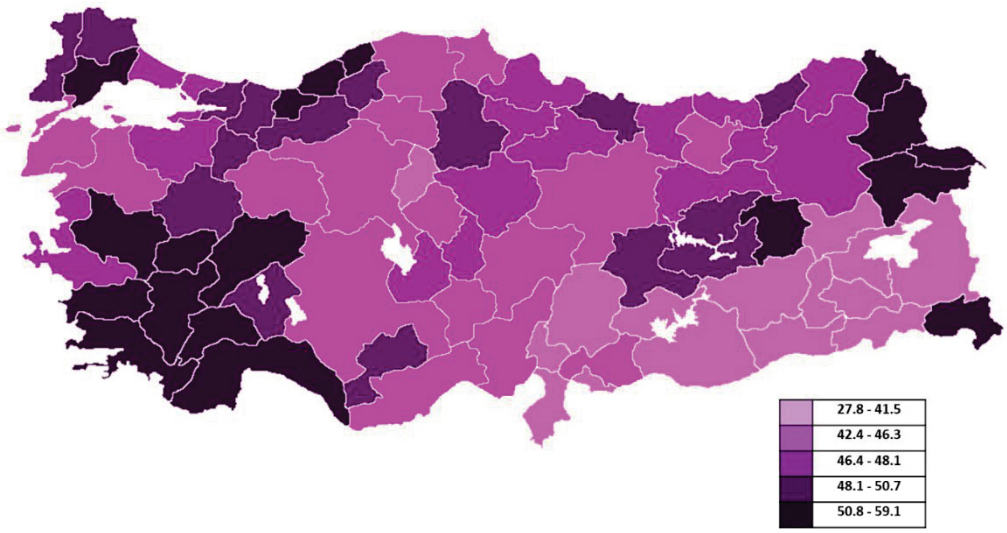


Figure 4.17. Geographical Distribution of Employment Rate, 2015

Finally, when we look at the distribution of household-size, the highest scores (0.31 - 0.64) are seen in Eastern and Southeastern Anatolian provinces. And also the high scores in the eastern parts of İstanbul are striking. Other provinces have low scores (0.13 - 0.23 especially Aegean and Mediterranean coastal provinces (Figure 4.18).

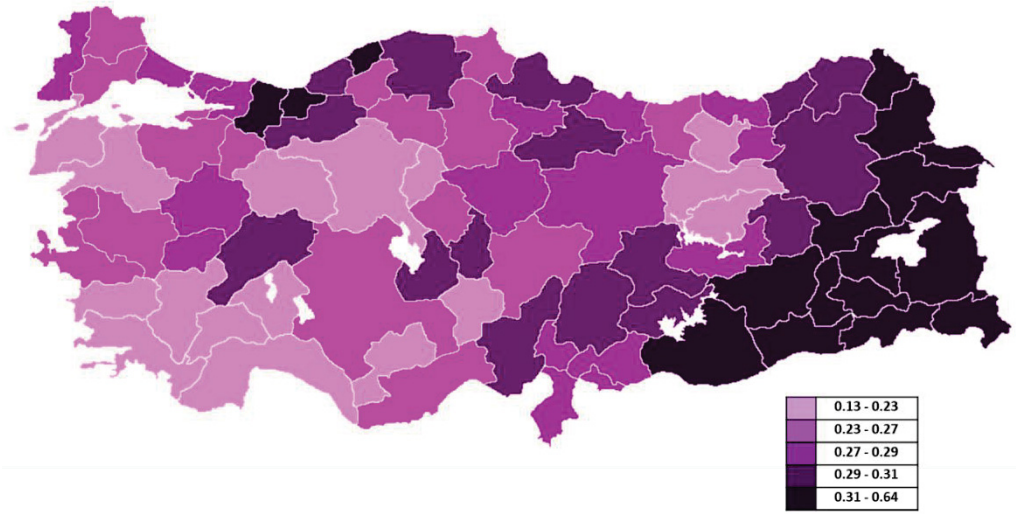


Figure 4.18. Geographical Distribution of Household-size, 2015

4.3. Results

To start with the OLS estimations for social trust, there are no significant relationships between social trust and economic growth regardless of the direction of the relationship. In terms of the determinants of social trust, it is negatively related to unemployment rate, poverty rate and share of young population of the provinces and positively related to per capita income, per capita electricity consumption in industry, worsening of income distribution, education quality, the bachelor graduates rate, household size, and life expectancy. In terms of economic growth's determinants, only population variable has a significant (and negative) coefficient (Table 4.4)

Once we run the same models by using 3SLS, results consistently remain same except the coefficient of the net migration rate that turns insignificant. Then, when we add a spatial spillover component across the error terms. As we find more or less the same results, with the exception that population density becomes significant and net migration rate and per capita electricity consumption in industry turns insignificant. Spatial components are also significant in indicating the importance of geographical clustering of social capital (Table 4.5).

Putting all these findings together, various robust determinants are found. So, provinces that have low unemployment rates, low poverty rates, high income, older average ages, high education level and quality, worsened income distribution, large households, and high life expectancy tend to have the higher level of social trust.

Next, once we estimate the models for social trust as the dependent variable (in 3SLS), a very important result appears that economic growth significantly improves the social capital but not the other way around. This is in contrast with what has so far been found in the literature. That's why it represents a quite interesting finding. Hence we argue that so far in the literature social capital is assumed to influence exogenously the economic growth, however, we show here that economic growth, rather, affects the social capital. Ignoring this reverse causality, indeed, makes the existing results suspicious. We explain this finding by the argumentation that economic growth induces the social capital as the higher level of income make individuals live in better conditions and participate more easily to social networks, norms and generate trustworthy relationships (Table 4.6).

In terms of the determinants of social norms, according to OLS estimations, it is negatively related to unemployment rate, poverty rate and share of the young population of the provinces, population and its density, and positively related to household size, net migration rate, and quality of health services. In terms of economic growth's determinants, only population and employment rate variables have a significant (and negative) coefficient (Table 4.7).

Once we run the same models by using 3SLS, results consistently remain the same except the coefficient of the population, its density and life expectancy that turns insignificant. Then, when we add a spatial spillover component across the error terms. As a result, we find more or less the same results. The spatial component is also significant in indicating the importance of geographical clustering of social capital (Table 4.8).

Putting all these findings together, various robust determinants are found for social norms. So, provinces that have low unemployment rates, low poverty rates, big households and high in-migration rates tend to exhibit a greater score for the commitment to the social norms (Table 4.9).

Finally, as for the determinants of social participation in OLS estimations, we find that it is negatively related to the unemployment rate, poverty rate and intensity of young population whereas positively related to bachelor rates, household size, income, worsening of income distribution in the province (Table 4.10). Once we run a 3SLS regression, many coefficients remain consistently the same but the household size and

poverty ratio becomes insignificant whereas the coefficients of the population and its density turn significant (Table 4.11). When we run the Spatial Error Model, we note that spatial component is positive and significant. All other determinants are consistent with 3SLS model apart from the population and density variables which become insignificant (Table 4.12). Consequently, the three models' results for social participation, the robust determinants (verified across methods) are unemployment rate, bachelor rate, income and its distribution, poverty, and young population.

Overall, putting all these results together, some determinants are firmly robust across different regression methods and across 2 different measures of social capital. These are, firstly, economic variables including unemployment, income and poverty rates of provinces and, secondly, some of the demographic variables such as household size and average age in the province. Hence, a typical province that has high social capital can be defined as an Anatolian province that has relatively higher income, less unemployment and poverty, big households and older age profile.

Table 4.4. OLS Results for Trust Variable

SC - Trust	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.679313***	1.01929***	0.932976***	1.044257***	1.049262***	-0.001241***	1.07736***	0.682685***	0.6907656***	1.244311***	0.653861***	1.197193***	0.799355***
growth	-0.1727193	-0.0720518	-0.2208892	-0.055434	-0.1057667	-0.1546242	-0.3505786	-0.15513	-0.1628288	-0.16004	-0.18163	0.032557	-0.18083
unemp	-0.088897***	-0.0093434***		-0.0089867***	0.0092173**	-0.0092849***		-0.00901***	-0.0090132***		-0.00829***		-0.00891***
educationquality	0.0022221**					0.0019292**		0.002177**	0.0021452**		0.002289**		0.001565
bach		0.0064589***											
householdsize			0.4214235***										
income				2.353-06***									
incomedistr					0.0016149**								
life						0.0094231**							
nmr							0.0008835**						
pop								1.09E-09					
popdens									8.03E-06				
poverty										-0.00409***			
healthservices											2.08E-06		
youngpop												-0.01182***	
electricty													0.010211**

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.4105277***	0.4105277***	0.4105277***	0.4105277***	0.4105277***	0.4105277***	0.4105277***	0.410528***	0.4105277***	0.410528***	0.410528***	0.410528***	0.410528***
SC	-0.0493555	-0.0493555	-0.0493555	-0.0493555	-0.0493555	-0.0493555	-0.0493555	-0.04936	-0.0493555	-0.04936	-0.04936	-0.04936	-0.04936
pop	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**	-4.28E-09**
educationquality	-0.0004862	-0.0004862	-0.0004862	-0.0004862	-0.0004862	-0.0004862	-0.0004862	-0.00049	-0.0004862	-0.00049	-0.00049	-0.00049	-0.00049
emp	-0.0008262	-0.0008262	-0.0008262	-0.0008262	-0.0008262	-0.0008262	-0.0008262	-0.00083	-0.0008262	-0.00083	-0.00083	-0.00083	-0.00083
electricty	0.4105277	0.4105277	0.4105277	0.4105277	0.4105277	0.4105277	0.4105277	0.410528	0.4105277	0.410528	0.410528	0.410528	0.410528

Table 4.5. 3SLS Results for Trust Variable

SC - Trust	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.707113***	0.857358***	1.168265***	0.7834951***	0.9540063***	0.010522***	1.391907***	0.484161***	0.697651***	1.311641***	0.7202528***	1.101622***	0.860762***
growth	-0.2510685	0.593929	-1.163.222	1.063.609	0.2926281	-0.19123	-1.754883**	0.456556	-0.19029	-0.50632	-0.3769929	0.6926491	-0.34271
unemp	-0.0088126***	-0.01021***		-0.0102967***	0.0096663**	-0.00924***		-0.00988***	-0.00896***		-0.0086243***		-0.00875***
educationquality	0.0021585*					0.0019		0.002514	0.00214**		0.0021507		0.00143
bach		0.008143*											
householdsize			0.3328042***										
income				3.44E-06*									
incomedistr					0.0019082*								
life						0.009445*							
nmr							0.0005536						
pop								3.91E-09					
popdens									6.57E-06				
poverty										-0.00389***			
healthservices											2.56E-06		
youngpop												-0.014831***	
electricity													0.010308***

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.39668296***	0.406184***	0.4632794***	0.3748509***	0.4001773***	0.401242***	0,4411894*	0.421287***	0.406811***	0.401194***	0.3932637***	0.5805313	0.860762
SC	-0.0249554	-0.09496	-0.0258194	-0.1028728	-0.0692141	-0.03989	1.72E-01	-0.0238	-0.4828	0.026689	-0.0277022	-0.3828839	-0.02791
pop	-4.30E-09**	-4.24E-09**	-2.39E-09	-4.34E-09**	-4.32E-09**	-4.32E-09**	-7.09E-10	-4.21E-09**	-4.29E-09**	-3.61E-09*	-4.34E-09**	-3.95E-09*	-4.30E-09***
educationquality	-0.0005133	-0.00027	-0.00006937	-0.0000639	-0.0003454	-0.00048	-0.001296	-0.00065	-0.00047	-0.00046	-0.0004832	0.0002041	-0.00054
emp	-0.0009262	-0.0007	-0.0015587*	-0.0007152	-7.868E-05	-0.00086	-0.002775	-0.00092	-0.00083	-0.00121*	-0.0009103	-0.0003011	-0.0009
electricity	0.00002753	0.002464	-0.0022851	0.001616	0.0015615	0.000375	-0.004625	0.002375	0.000675	0.000244	-0.0000686	0.003476	0.000784

Table 4.6. SEM Results for Trust Variable

SC - TRUST	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
Intercept	0.73***	1.02***	0.94***	0.1***	1.05***	0.02	1.01***	0.72***	0.73***	1.25***	0.71***	1.15***	0.81***
growth	-0.14	-0.06	-0.15	-0.06	-0.08	-0.11	-0.01	-0.13	-0.14	-0.17	-0.15	0.05	-0.18
unemp	-0.009***	-0.009***		-0.009***	-0.009***	-0.009***		-0.009***	-0.009***		-0.009***		-0.009***
educationquality	0.002*					0.002		0.002*	0.002*		0.002*		0.002
bach		0.006***											
householdsize			0.33***										
income				0.002***									
incomedistr					0.001**								
life						0.011*							
nmr							0.0003						
pop								0.007					
popdens									0.006*				
poverty										-0.004***			
healthservices											0.002		
youngpop												-0.009***	
electricty													0.01
λ	0.37*	0.2**	0.64	-0.27**	0.34**	0.45*	1.27	0.34*	0.32*	-0.41**	0.37*	0.75	-0.06***

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
Intercept	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***
SC	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
pop	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**	-0.004**
educationquality	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004
emp	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
electricty	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
λ	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**

Table 4.7. OLS Results for Norms Variable

SC - Norms	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	1.103397***	1.049052***	0.8583384***	1,033049***	1,007008***	0.5430449	0.9523086***	1.0624***	1.040121***	1.096319***	0.992018***	1.022881***	1.162392***
growth	0.2295204	0.1848134	0.2508431	0.1924356	0.2422639	0.2444495	0.2068179	0.0778244	0.1807582	0.312893**	0.188291	0.298239	0.225582
unemp	0.0071187**	-0.0070573***		-0.0071398***	0.0069746**	-0.0074448***		-0.0060735***	-0.0065103***		-0.00684***		-0.00713***
educationquality	-0.0004659					-0.0007066		-0.0000871	-0.0000927		-0.00015		
bach		-0.0023105											
householdsize			0.30962***										
income				-6.59E-07									
incomedistr					5.29E-06								
life						0.0077744							
nmr							0.0011819***						
pop								-9.40E-09***					
popdens									-3.96E-05**				
poverty										-0.00326***			
healthservices											9.61E-06**		
youngpop												-0.00518**	
electricity													0.004961

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.3854237***	0.3854237***	0.3854237***	0.3854237***	0.3854237***	0.3854237***	0.3854237***	0.3854237***	0.3854237***	0.385424***	0.385424***	0.385424***	0.385424***
SC	0.0109167	0.0109167	0.0109167	0.0109167	0.0109167	0.0109167	0.0109167	0.0109167	0.0109167	0.010917	0.010917	0.010917	0.010917
pop	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**	-4.11E-09**
educationquality	-0.000607	-0.000607	-0.000607	-0.000607	-0.000607	-0.000607	-0.000607	-0.000607	-0.000607	-0.00061	-0.00061	-0.00061	-0.00061
emp	-0.0010642*	-0.0010642*	-0.0010642*	-0.0010642*	-0.0010642*	-0.0010642*	-0.0010642*	-0.0010642*	-0.0010642*	-0.00106*	-0.00106*	-0.00106*	-0.00106*
electricity	0.0005171	0.0005171	0.0005171	0.0005171	0.0005171	0.0005171	0.0005171	0.0005171	0.0005171	0.000517	0.000517	0.000517	0.000517

Table 4.8. 3SLS Results for Norms Variable

SC - Norms	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.3987559	0.6408328*	0.5168823***	0.4575425	0.4524526	-0.33173	0.7593064***	0.385374	0.446061**	0.721468***	0.4307069	0.6730154***	0.456248
growth	2.121389**	1.989.184	1.618375**	2.683.569	2.631149**	2.210709**	1.068482**	2.163.863	1.888702***	2.240762***	1.850.875**	2.714709**	2.0871**
unemp	0.001041***	-0.0093532***		-0.0099893***	0.0100495**	-0.00954***		-0.00905***	-0.00804***		-0.0086043***		-0.00896***
educationquality	-0.001041					0.000779		0.001062	0.001027		0.0010127		0.000768
bach		-0.0002861											
householdsize			0.438226***										
income				1.49E-06									
incomedistr					0.0013785								
life						0.009818*							
nmr							0.0013844***						
pop								2.35E-10					
popdens									-6.36E-06				
poverty										-0.00437***			
healthservices											5.28E-06		
youngpop												-0.0162031**	
electricity													0.003857

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.4288307***	0.3978032***	0.6330606***	0.420121***	0.4186704***	0.43129***	0.5330559***	0.430305***	0.327547**	0.491159***	0.4312174***	1.300115**	0.414957**
SC	-0.0240124	-0.0428008	-0.2804228	-0.0672511	-0.0607381	-0.02154	-1.54E-01	-0.02593	0.097187	-0.05465	-0.0308625	-1.057.002	-0.02344
pop	-4.47E-09**	-4.77E-09***	-8.34E-09***	-5.07E-09***	-4.96E-09***	-4.37E-09**	-7.05E-09***	-4.51E-09**	-3.13E-09	-5.81E-09***	-4.58E-09**	-1.65E-08**	-4.51E-09**
educationquality	-0.0006733	-0.0004111	-0.0006058	-0.0004004	-0.0004197	-0.00069	-0.006929	-0.00067	-0.00074	-0.00097***	-0.0006533	-0.0002975	-0.0006
emp	-0.0009839**	-0.0010201**	-0.0000642	-0.0009917**	-0.0010248**	-0.00102**	-0.000279	-0.00098	-0.00116**	-0.00032	-0.0009646**	0.0011058	-0.00099**
electricity	0.0017739	0.0017294	0.0018634	0.00073	0.0009019	0.002117	0.0011587	0.001771	0.001676	-0.00067	0.0015061	0.0042908	0.000631

Table 4.9. SEM Results for Norms Variable

SC - Norms	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
Intercept	1.13***	1.05***	0.87***	0.1***	1.01***	0.59	0.93***	0.11***	0.11***	1.1***	0.1***	0.95***	1.18***
growth	0.26	0.21	0.26	0.02	0.24	0.26	0.32**	0.01	0.02	0.29**	0.23	0.33	0.25
unemp	-0.007***	-0.006***		-0.006***	-0.009***	-0.007***		-0.005***	-0.006***		-0.006***		-0.007***
educationquality	-0.0007					-0.0008		-0.0004	-0.0004		-0.0004		-0.0009
bach		-0.004											
householdsize			0.24***										
income				-0.001									
incomedistr					-0.0003								
life						0.007							
nmr							0.0009***						
pop								-0.0009***					
popdens									-0.0004**				
poverty										-0.003***			
saglik											0.0001***		
youngpop												-0.0009	
electricty													0.005
λ	0.51**	0.68	0.8	0.68	0.47*	0.31**	1.09	0.64	0.61	0.32*	0.81	1.35	0.58*

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
Intercept	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***	0.03***
SC	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
pop	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**
educationquality	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004
emp	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*	-0.0004*
electricty	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
λ	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*	0.3*

Table 4.10. OLS Results for Participation Variable

SC - Participation	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.4652679	0.8121191***	0.7882972***	0.6289325***	0.8157309***	-0.4608669	1.04153***	0.497884	0.5461824	1.200.663	0.512761	1.16902***	0.658969
growth	0.2988977	0.5575068	0.2520939*	0.6289325	0.5726647	0.3235721	0.26267	0.4195837	0.3612526	0.325909	0.316784	0.719379*	0.285967
unemp	0.0028691***	-0.0116228***		-0.010753***	0.0111164**	0.0117592**	0.0114239**	0.0120519**	-0.119984***		-0.01134***		-0.01125***
educationquality	0.0028691					0.0024713		0.0025677	0.0023918		0.002735		0.001823
bach		0.0135516***											
householdsize			0.563634***										
income				5.41E-06***									
incomedistr					4.49E-03***								
life						0.0128493							
nmr							0.0005627						
pop								7.48E-09					
popdens									5.06E-05				
poverty										-0.00536***			
healthservices											-4.10E-06		
youngpop												-0.01905***	
electricity													0.01629

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.3838282***	0.3838282***	0.3838282***	0.3838282***	0.3838282***	0.3838282***	0.3838282***	0.3838282***	0.3838282***	0.383828***	0.383828***	0.383828***	0.383828***
SC	0.0377441	0.0377441	0.0377441	0.0377441	0.0377441	0.0377441	0.0377441	0.0377441	0.0377441	0.037744	0.037744	0.037744	0.037744
pop	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**	-4.34E-09**
educationquality	-0.0006781	-0.0006781	-0.0006781	-0.0006781	-0.0006781	-0.0006781	-0.0006781	-0.0006781	-0.0006781	-0.00068	-0.00068	-0.00068	-0.00068
emp	-0.0012906**	-0.0012906**	-0.0012906**	-0.0012906**	-0.0012906**	-0.0012906**	-0.0012906**	-0.0012906**	-0.0012906**	-0.00129**	-0.00129**	-0.00129**	-0.00129**
electricity	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09	4.98E-09

Table 4.11. 3SLS Results for Participation Variable

SC - Participation	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	1.115135*	0.8872347*	1.419661***	0.7458589*	0.8357409**	0.213818	1.445463***	1.507.397	0.1723228	1.548.286***	1.109.578	1.26454***	1.374647*
growth	-144.591	0.1914248	-2.276.517	1,004391	0.463052	-1.399.098	-1.635.389	-2.690.904	1.340989*	-1.461.922	-1.424.181	0.0596344	-1.600.684
unemp	-0.009502***	-0.010702***		-0.010649***	0.0107437**	-0.009791***	-0.00906**	-0.007619	-0.0117275***		-0.0095196***		-0.009396***
educationquality	0.001479					0.0011605		0.0008538	0.0031439		0.0014902		0.0002486
bach		0.0134431*											
householdsize			0.325847										
income				6.14E-06**									
incomedistr					0.0045256**								
life						0.0122405							
nmr							0.00045						
pop								-6.89E-09**					
popdens									8.01E-05***				
poverty										-0.004334			
healthservices											-2.21E-07		
youngpop												-0.016038*	
electricity													0.0174093

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
constant	0.364758	0.4019221***	0.409876***	0.4441346***	0.4259292***	0.3699882***	0.388499***	0.3682515***	0.3985069***	0.3626941***	0.365594***	0.4454584**	0.3936974***
SC	0.008517	-0.080423	-0.03379	-0.1296728	-0.0776722	-0.026674	0.0025286	-0.020349	0.0980172	-0.01574	0.0068132	-0.084401	0.0090945
pop	-4.20E-09**	-3.97E-09**	-2.42E-09	-3.67E-09*	-3.94E-09**	-4.09E-09**	-4.08E-09**	-4.28E-09**	-4.70E-09**	-3.47E-09**	-4.20E-09**	-3.38E-09	-4.09E-09**
educationquality	-0.000451	0.0003242	-0.00037	-0.0003973	-0.0004837	-0.000353	-0.000553	-0.00038	-0.0010819	-0.000281	-0.0004494	-7.63E-05	-0.000615
emp	-0.001176	-0.000636	-0.00159	-0.0002392	-0.005647	-0.000951	-0.001121	-0.000932	-0.001224	-0.001378*	-0.001165	-0.002538	-0.001168
electricity	-0.002015	-0.000423	-0.00298	0.002445	0.0010009	-0.001949	-0.002206	-0.001931	0.0021066	-0.000726	-0.0019563	-0.001647	0.0174093

Table 4.12. SEM Results for Participation Variable

SC - Participation	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
Intercept	0.53	0.83	0.68	0.83***	0.81***	-0.45	0.93***	0.05	0.06	1.19***	0.06	1.13***	0.62
growth	0.32	0.52	0.31	0.68*	0.59*	0.35	0.37	0.04	0.03	0.29	0.03	0.61	0.28
unemp	-0.009***	-0.01***		-0.001***	-0.011***	-0.01***		-0.001***	-0.001***		-0.009***		-0.01
educationquality	0.002					0.002		0.0002	0.0002		0.002		0.002
bach		0.01***											
householdsize			0.33*										
income				0.0006***									
incomedistr					0.005***								
life						0.014							
nmr							0.0002						
pop								0.00005					
popdens									0.0004				
poverty										-0.005***			
healthservices											-0.0004		
youngpop												-0.02***	
electricty													0.01
λ	0.86	0.53*	0.98	-0.28**	-0.17**	0.88	1.24	0.75	0.59	0.45*	0.86	0.79	0.53

Growth	model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10	model 11	model 12	model 13
Intercept	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***	0.04***
SC	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
pop	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**	-0.0004**
educationquality	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006	-0.00006
emp	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**	-0.0001**
electricty	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
λ	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**	0.2**

CHAPTER 5

CONCLUSION

Social capital is tied to the social conditions involved and does not have an even distribution within thesociety, depending on the inequalities and hierarchies in society. This approach, which prioritizes social networks, involves thinking that social capital is a resource at the level of a group. There are also debates on some of the lack of approach and measurement in research. Depending on the approach differences in the concept, it is seen that social capital is defined in different forms and different criteria are used. All these discussions show that the process of establishing conceptual and theoretical frameworks related to social capital still continues. Equitable approaches also contribute to this process, leading to the development of new models of social capital.

So, initially only the social capital was seen as positive, but over time many researchers accepted the existence of negative aspects. Because social capital does not always result in the benefit of society and automatically leads to positive results.

If the social capital of a society is low, production cannot be done. Crises in the past and present experiences in Turkey, we not achieve the currently desired level in terms of economic growth, when the inter-regional development disparities and taken into account accordingly worsening social problems, society is taking a close-up of social capital and further delay by our country's issues must also begin to be discussed in depth.

In the current study, we empirically analyzed the regional social capital in Turkey for 81 provinces in 2015.

Specifically, we have tried to investigate the answers to three main research questions. Firstly, we have analyzed the magnitude and the way of the relationship between social capital and economic growth. Second, we analyzed what kind of socio-economic and demographic determinants influence the social capital in regions. Third, we searched for an answer to the question of “does the social capital evolve in a spatially clustering sense”?

We used various measures of social capital, particularly in three modes, social trust, norms, and participation. In terms of methodology, we adopted descriptive statistics, illustrative maps, Kernel density estimates, cross-sectional simple OLS, 3SLS, and Spatial Error Model (SEM) estimations.

As an outcome, our results can be summarized into four groups. First, regional social capital is heterogeneously distributed across regions, particularly in social participation.

Second, having estimated our model by using OLS, 3SLS, and SEM, we understood that social capital has no significant impact on economic growth but the growth induces significantly the generation of social capital (in social norms type). This represents a brand new result that has not yet been considered by the literature. Third, cross-regional variation in social capital is best explained by robustly significant (across three regression models) economic and demographic determinants. Hence, a typical province that has high social capital can be defined as an Anatolian province that has relatively higher income, less unemployment and poverty, big households and older age profile. Fourth, social capital is shown to emerge in spatially correlated clusters.

The policy lessons that can be learned from our results can be grouped into several categories. Initially, a commonly accepted hypothesis of "social capital is beneficial for growth" is not always true. However, vice versa is correct. Hence, economic growth and development should be further promoted as it helps in the formation of social capital. Besides, social capital is more easily generated within the regions with low unemployment and poverty. Thus, employment and poverty reduction programs should be developed. The regions that exhibit a high level of social capital are the ones which are relatively old aged. Therefore, the young generation should be encouraged also to participate in voluntary activities, norms, and trust.

REFERENCES

Adam, F. and Rončević, B. (2003). Social capital: recent debates and research trends. *Social Science Information*, 42(2), 155-184.

Adler, P. S. and Kwon, S. (2002). Social capital: prospects for a new concept. *The Academy of Management Review*, 27(1), 17-40.

Aghion, P. and Howitt, P. (1992). A model of growth through creative destruction. *Econometrica*, 60(2), 323-351.

Akçay, S. (2005). Sosyal sermaye ve kalkınma. Kar, M. and Taban, S. (Eds.). İktisadi kalkınmada sosyal, kültürel ve siyasal faktörlerin rolü, Ekin Yayınları, Bursa.

Akçomak, I.S. and Well B.T. (2009). Social capital, innovation and growth: evidence from Europe. *European Economic Review*, 53(6), 544–567.

Alesina, A. and La Ferrara, E. (2000). Participation in heterogeneous communities. *Quarterly Journal of Economics*, 115(3), 847–904.

Alonso, W. (1968). The quality of data and the choice and design of predictive models. Highway Research Board Special Report, 178-192.

Altay, A. (2007). Bir kamu malı olarak sosyal sermaye ve yoksulluk ilişkisi. *Ege Academic Review*, 7(1), 337-362.

Anirudh, K. (2002). Active social capital: tracing the roots of development and democracy. New York: Columbia University Press.

Baker, W. (1990), "Market networks and corporate behavior", *American Journal of Sociology*, Vol. 96 pp. 589-625.

Baliamoune-Lutz, M. (2005). Institutions, social capital, and economic development in Africa: an empirical study. International Centre for Economic Working Paper Series No. 18.

Baliamoune-Lutz, M. (2011). Trust-based social capital, institutions, and development. *Journal of Socio-Economics*, 40(4), 335-346.

Bankston, C. L. and Zhou, M. (2002). Social capital and immigrant children's achievement. In Fuller, B., Hannum, E. (Eds.). Schooling and Social Capital in Diverse Cultures, Oxford, UK: Emerald, 13-39.

Bankston, C. L. (2004). Social capital, cultural values, immigration, and academic achievement: The host country context and contradictory consequences. *Sociology of Education*, 77(2), 176-179.

Bebbington, A. and Perrault, T. (1999). Social capital and local development in highland Ecuador. *Economic Geography*, 75(4), 395-418.

Belliveau, M. A., O'Reilly, C. A., Wade, J. B. (1996). Social capital at the top: effects of social similarity and status on CEO compensation. *Academy of Management Journal*, 39, 1568-1593.

Berggren, N., Elinder, M. and Jordahl, H. (2008). Trust and growth: A shaky relationships. *Empirical Economics*, 35, 251-274.

Beugelsdijk, S. and Smulders, S. (2003). Bridging and bonding social capital: which type is good for economic growth?". ERSA conference papers from European Regional Science Association, August.

Beugelsdijk, S. and van Schaik, T. (2005). Social capital and growth in European regions: an empirical test. *European Journal of Political Economy*, 21(2), 301-324.

Bjørnskov, C. (2006). The multiple facets of social capital. *European Journal of Political Economy*, 22(1), 22-40.

Bjørnskov, C. (2009). Social trust and the growth of schooling. *Economics of Education Review*, 28(2), 249-257.

Bjørnskov, C. (2011). Combating corruption: on the interplay between institutional quality and social trust. *Journal of Law and Economics*, 54(1), 135-159.

Boulila, G., Bousrish, L. and Trabelsi, M. (2008), "Social capital and economic growth: Empirical investigations on the transmission channels", *International Economic Journal*, Vol. 22 No. 3, pp. 399-417.

Bourdieu, P. (1985). The forms of capital. In J. G. Richardson (Ed.). Handbook of theory and research for the sociology of education: 241-258, New York: Greenwood.

Bourdieu, P. and Wacquant, L. J. D. (1992). An invitation to reflexive sociology. Chicago: University of Chicago Press.

Boxman, E. A. W., De Graaf, P. M., Flap, H. D. (1991). The impact of social and human capital on the income attainment of Dutch Managers. *Social Networks*, 13, 51-73.

Brehm, J. and Rahn, W. (1997). Individual-level evidence for the causes and consequences of social capital. *American Journal of Political Science*, 41, 999-1023.

Bullen, P. and Onyx, J. (1997). Measuring social capital in five communities in NSW: Overview of a study. Management Alternatives.

Burt, R. S. (1997). A note on social capital and network content. *Social Networks*, 19, 355-373.

Buttrick, J. (1958). A note on Professor Solow's growth model. Quarterly Journal of Economics, 72(4), 633-636.

Callois, J. M. and Angeon, V. (2004). On the role of social capital on local economic development: an econometric investigation on rural employment areas in France. AES Conference, 1-2.

Callois J.M. and Aubert, F. (2007). Towards indicators of social capital for regional development issues: the case of French rural areas. *Regional Studies,* 41(6), 809-821.

Casey, T. (2004). Social capital and regional economies in Britain. *Political Studies*, 52, 96-117.

Christoforou, A. (2003). Social capital and economic growth: the case of Greece. Paper presented at *the 1st PhD Symposium of the Hellenic Observatory/LSE on Social Science Research in Greece, LSE, 21st of June.*

Clercq, D. and Dakhli, M. (2004). Human capital, social capital, and innovation: A multi-country study. *Entrepreneurship & Regional Development*, 16(2), 107-128.

Coleman, J. S. (1990). Foundations of social theory. Cambridge, MA: Harvard University Press.

Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology,* 94, 95-120.

Collier, P. and Gunning, J. W. (1999). Explaining African economic performance. *Journal of Econometric Literature*, 37(1), 64-111.

Cote, S. and Healy, T. (2001). The Well-being of nations. The role of human and social capital. Paris: Organization for Economic Cooperation and Development.

Çalışkan, Ş. And Meçik, O. (2011). Sosyal ve beşeri sermayenin bireysel ekonomik getirisi üzerine uygulamalı bir analiz: Eskişehir ili örneği. *Paradoks Ekonomi, Sosyoloji ve Politika Dergisi*, 7(2), 7-26.

Dasgupta, P. (2005). The economics of social capital. *The Economic Record*, 81, S2-S21.

Dearmon, J. and Grier, K. (2009). Trust and development. *Journal of Economic Behavior & Organization*, 71(2), 210–220.

Dinçer, O. C. and Uslaner, E. M. (2010). Trust and growth. *Public Choice*, 142(1-2), 59-67.

Dinda, S. (2008). Social capital in the creation of human capital and economic growth: a productive consumption approach. *Journal of Socio-Economics*, 38(5), 2020-2033.

Dinda, S. (2014). Inclusive growth through creation of human and social capital. *International Journal of Social Economics*, 41(10), 878-895.

Dzialek, J. (2009). Social capital and economic growth in Polish regions. MPRA Paper No. 18287, University Library of Munich, Germany.

Easterly, W. and Levine, R. (1997). Africa's growth tragedy: politics and ethnic divisions. *Quarterly Journal of Economics*, Vol. 112 pp. 1203-1250.

Easterly, W. (2001). The middle class consensus and economic development. *Journal of Economic Growth*, 6, 317-335.

Erselcan, F. (2009). Sosyal sermaye ve ekonomik kalkınma: Sivas, Kayseri, Yozgat bölgesinde bir araştırma. Cumhuriyet Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Doktora Tezi.

European Commision (2005). Special Eurobarometer: Social capital. Brussels: European Commission.

Fidrmuc, J., Gërxhani, K. (2005). Formation of social capital in central and Eastern Europe: understanding the gap vis-à-vis developed countries. *Beyond Transition*, 16(3), 18-20.

Field, J. (2003). Social Capital, Routledge, London.

Field, J. (2008). Social Capital, Routledge, New York.

Fine, B. and Lapavitsas, C. (2004). Social capital and capitalist economies. *South Eastern Europe Journal of Economics,* 17-34.

Forte, A., Palomino, J. P., and Tortosa-Ausina, E. (2015). Does social capital matter for European regional growth? *European Economic Review*, 77, 47-64.

Fujita, M., Krugman, P. And Venables, A. J. (1999). The spatial economy: cities, regions and international trade. USA: The MIT Press.

Fujita, M. and Mori, T. (2005). Frontiers of the new economic geography. *Regional Science*, 84(3), 377-405.

Fujita, M. (2010). The evolution of spatial economics: from Thünen to the new economic geography. *The Japanese Economic Review*, 61(1), 1-32.

Fukuyama, F. (1995). Trust: social virtues and the creation of prosperity. London: Hamish Hamilton.

Fukuyama, F. (1997). The end of order. London: Social Market Foundation.

Fukuyama, F. (1998). Asian values and the Asian crises. *Commentary,* 1 February, 23-27.

Fukuyama, F. (2000). Social capital and civil society. Working paper, International Monetary Fund, 1 March.

Fukuyama, F. (2002). Social capital and development: the coming agenda. *SAIS Review*, 22(1), 23-37.

Furstenberg, F. F. and Hughes, M. E. (1995). Social capital and successful development among at risk youth. *Journal of Marriage and the Family*, 57, 580-592.

Garcia, C. (2006). Study abroad social networks, motivation, and attitudes: implications for second language acquisition. In Dufon, M. and Churchill, E. (Eds.), Language learners in study abroad context, 231-258, Clevedon, UK: Multilingual Matters.

Garretsen, H. and Martin, R. (2010). Rethinking (new) economic geography models: taking geography and history more seriously. *Spatial Economic Analysis*, 5(2), 127-160.

Geertz, C. (1962). The rotating credit association: a "*middle rung*" in development. *Economic Development and Cultural Change*, 10(3), 241-263.

Glaeser, E. L. (2001). The formation of social capital. Available at: http://www.oecd.org/innovation/research/1824983.pdf (accessed 02 March 2018).

Grootaert, C. (1998). Social capital: the missing link. Social Capital Initiative Working Paper, No. 3, World Bank.

Grootaert, C. and Bastelaer, V. T. (2002). Understanding and measuring social capital: a multidisciplinary tool for practitioners, World Bank Publications.

Grossman, G. and Helpman, E. (1991). Trade, knowledge, spillovers, and growth. *European Economic Review*, 35(2), 517-526.

Hanifan, L. J. (1916). The rural school community center. *The Annals of the American Academy of Political and Social Science*, 67, 130-138.

Harris, J. and Renzio, P. (1997). Missing link or analytically missing? The concept of social capital. *Journal of International Development*, 9(7), 919-937.

Helliwell, J. and Putnam, R. (1995). Economic growth and social capital in Italy. *Eastern Economic Journal*, 21, 295-307.

Helliwell, J. (1996). Economic growth and social capital in Asia. Working paper (5470), National Bureau of Economic Research, February.

Inglehart, R. (1997). Modernization and post-modernization: cultural, economic, and political change in 43 societies. Princeton, NJ: Princeton University Press.

Iyer, S., Kitson, M. and Toh, B. (2005). Social capital, economic growth and regional development. *Regional Studies*, 39(8), 1015–1040.

Kaldaru, H. and Parts, E. (2005). The effect of macro-level social capital on sustainable economic development. University of Tartu Faculty of Economics and Business Administration Working Paper, No. 42.

Kaldor, N. (1955). Alternative theories of distribution. *The Review of Economic Studies*, 23(2), 83-100.

Kaldor, N. (1963). Capital Accumulation and Economic Growth. D. C. Friedrich A. Lutz (Ed.), Seminar on the Programming of Economic Development pp. 177-222, London: Macmillan.

Karaçay, H. (2008). Sosyo-ekonomik kalkınmada fiziki, beşeri ve sosyal sermaye: Vakıflar Genel Müdürlüğü örneği. Gazi Üniversitesi Fen Bilimleri Enstitüsü Yayınlanmamış Yüksek Lisans Tezi, Ankara.

Karagül, M. and Akçay, S. (2002). Ekonomik büyüme ve sosyal sermaye: ampirik bir kanıt. *İktisat İşletme ve Finans*, September, 82-90.

Karagül, M. (2003). Beşeri sermayenin ekonomik büyümeyle ilişkisi ve etkin kullanımı. *Akdeniz İ.İ.B.F. Dergisi*, 5, 79-90.

Karagül, M. and Masca, M. (2005). Sosyal sermaye üzerinde bir inceleme. *Abant İzzet Baysal Üniversitesi, Ekonomik ve Sosyal Araştırmalar Dergisi,* 1, 37-52.

Karagül, M. and Dündar, S. (2006). Sosyal sermaye ve belirleyicileri üzerine ampirik bir çalışma, *Akdeniz İ.İ.B.F. Dergisi*, 12, 61-78.

Karagül, M. (2012). Sosyal Sermaye (Kapitalizmin Kör Noktası). Nobel Yayınları, Ankara.

Kaya, Y. (2011). Sosyal sermaye düzeyinin belirlenmesi ve sosyal sermaye düzeyini etkileyen faktörlerin analizi: gönüllü teşekküler bağlamında Kayseri Örneği. Dumlupınar Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Yüksek Lisans Tezi.

Keele, L. (1997). Social capital and the dynamics of trust in government. American Journal of *Political Science*, 51(2), 241-254.

Keleş, H. N. (2012). Sosyal Sermaye, Eğitim Yayınevi: Konya.

Keskin, M. (2008). Sosyal sermaye ve bölgesel kalkınma: Erzurum Ticaret ve Sanayi Odası üyelerinde sosyal sermaye düzeyi ve belirleyicilerinin analizi. Atatürk Üniversitesi, Sosyal Bilimler Enstitütsü, Yüksek Lisans Tezi, Erzurum.

Knack, S. and Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *The Quarterly Journal of Economics*, 112(4), 1251-1288.

Knack, S. (2000). Social capital growth and poverty: a survey of cross-country evidence. Working paper (7), The World Bank, May.

Knack, S. (2003). Groups, growth and trust: cross-country evidence on the Olson and Putnam hypotheses. *Public Choice*, 117, 341-355.

Knoke, D. (1999). Organizational networks and corporate social capital. In R. Th. A. J. Leenders & S. M. Gabbay (Eds.). Corporate social capital and liability: 17-42. Boston: Kluwer.

Koç, A. and Ata, A. Y. (2012). Sosyal sermaye ve ekonomik büyüme ilişkisi: AB ülkeleri ve Türkiye üzerine ampirik bir inceleme. *Süleyman Demiral Üniversitesi İ.İ.B.F. Dergisi*, 17(1), 199-218.

Koka, B. R. and Prescott, J. E. (2002). Strategic alliances as social capital: a multidimensional view. *Strategic Management Journal*, 23(9), 795-816.

Korczynski, M. (2000). The political economy of trust. *Journal of Management Studies*, 37, 1-21.

KOSGEB (2005). Ekonomik kalkınmada sosyal sermayenin rolü. Ekonomik ve Stratejik Araştırmalar Merkez Müdürlüğü, 10-11.

Krebs, V. (2008).Social Capital. available at: http://sogrow.co.uk/wp-content/uploads/2016/02/Social-Capital.jpg (accessed 20 March 2018).

Krikelas, A. W. (1992). Why regions grow: a review of research on the economic base model. Economic Review: Atlanta Federal Reserve Bank, 16-28.

Krugman, P. (1991). Geography and trade. MIT press.

Krugman, P. (1998). What is new about the new geography? *Oxford Review of Economic Policy*, 14(2), 7-17.

Kum, M. (2011). İktisadın yeni coğrafi açılımı: yeni ekonomik coğrafya yaklaşımı. *Erciyes Üniversitesi Sosyal bilimler Enstitüsü Dergisi*, 3(1), 235-255.

La Porta, R. De-Silanes, F. L., Shleifer, A. and Vishny, R. W. (1997). Legal determinants of external finance. *The Journal of Finance,* 52(3), 1131-1150.

Leadbeater, C. (1997). The rise of the social entrepreneur. Demos, London, UK.

Lee, H. W., Lee, J. H. and Hahn, Y. B. (2011). Different influences of social capital on regionalism: bonding and bridging social capital. *Korean Political Science Review*, 45(5), 149–171.

Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology*, 25 pp. 467-487.

Loury, G. (1977). A dynamic theory of racial income differences. In Women, Minorities and Employment Discrimination, Wallace, P. and LaMond, A. (Eds.), pp. 153-188, Lexington, MA: Heath.

Loury, G. (1992). The economics of discrimination: Getting to the core of the problem. *Journal for African American Public Policy*, 1, 91-110.

Lucas, R. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22, 3-42.

Manski, C. F. (2000). Economic analysis of social interactions. *Journal of Economic Perspectives*, 14(3), 115-136.

McCallum, B. T. (1996). Neoclassical vs. endogenous growth analysis: an overview. NBER Working Paper Series, Working Paper No. 5844.

Meçik, O. (2010). Sosyal sermaye ve beşeri sermayenin bireysel ekonomik getirisi: Eskişehir ili örneği. Uşak Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Yüksek Lisans Tezi.

Midgley, J. and Livermore, M. (1998). Social capital and local economic development: implications for community social work practice. *Journal of Community Practice*, 5(1-2), 29-40.

Mubangizi (2003). Drawing on social capital for community economic development: insights from a South African Rural Community. *Community Development Journal*, 38.

Myrdal, G. (1957). Economic theory and underdeveloped regions. Harper & Row, New York.

Myrdal, G. (1972). Political factors in economic assistance. Scientific American, CCXXVI, pp. 15-21.

Nahapiet, J. and Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23, 242-266.

Narayan, D. and Pritchett, L. (1999). Cents and sociability: household income and social capital in rural Tanzania. *Economic Development and Cultural Change*, 47(4), 871-897.

Neira, I., Vászquez, E. and Portela, M. (2009). An empirical analysis of social capital and economic growth in Europe (1980–2000). *Social Indicators Research*, 92(1), 111–129.

OECD. (2001). The well-being of nations, the role of human and social capital. Paris.

Öksüzler, O. (2006). Sosyal sermaye, güven ve belirleyicileri: bir panel analizi. *Akdeniz Üniversitesi İ.İ.B.F. Dergisi*, 12(6), 108-129.

Özcan, B. (2011). Sosyal sermaye ve ekonomik kalkınma. İstanbul Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Doktora Tezi.

Özdemir, A. A. (2007). Sosyal ağ özellikleri bakış açısıyla sosyal sermaye ve bilgi yaratma ilişkisi: Akademisyenler üzerinde yapılan bir alan araştırması. Anadolu Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Doktora Tezi.

Paraskevopoulos, C. J. (2007). Social capital and public policy in Greece. GreeSE Paper No. 9, Hellenic Observatory, LSE, London.

Parts, E. (2013). The dynamics and determinants of social capital in the European Union and neighbouring countries. Working paper (1), XXI International Conference on Economic Policy in EU states, University of Tartu and Tallinn Technical University, Estonia, 27-28 June.

Peiró-Palomino, J. and Tortosa-Ausina, E. (2015). Social capital, investment and economic growth: some evidence for Spanish provinces. *Spatial Economic Analysis*, 10(1), 102–126.

Peiró-Palomino, J. (2016). Social capital and economic growth in Europe: nonlinear trends and heterogeneous regional effects. *Oxford Bulletin of Economics and Statistics*, 78(5), 717-751.

Perez, F., de Guevara, F., Serrano, J., Vicente, L. and Vicente, M. (2006). Measurement of social capital and growth: an economic methodology. Bilboa: Fundacion: BBVA.

Pennar, K. (1997). The ties that lead to prosperity: the economic value of social bonds is only beginning to be measured. Business Week, December 15, 153-155.

Peri, G. (2004). Socio-cultural variables and economic success: Evidence from Italian provinces 1951-1991. *Berkeley Electronic Journal, Topics in Macroeconomics*, 4(1).

Portes, A. and Sensenbrenner, J. (1993). Embeddedness and immigration: notes on the social determinants of economic action. *American Journal of Sociology*, 98, 1320-1350.

Portes, A. (1998). Social capital: its origins and applications in modern sociology. *Annual Review of Sociology*, 21, 1-24.

Portes, A. (2000). The two meanings of social capital. *Sociological Forum*, 15(1), 1-12.

Putnam, R. D. (1993). Making Democracy Work: Civic Traditions in Modern Italy. Princeton University Press, New Jersey.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65-78.

Putnam, R. D. (2000). Bowling Alone: The Collapse and Revival of American Community, Simon & Schuster, New York.

Putnam, R.D. (2002). Democracies in Flux: The Evolution of Social Capital in Contemporary Society. Oxford University Press.

Raiser, M., Haerpfer, C., Nowotny, T. and Wallace, C. (2001). Social capital in transition: a first look at the evidence. European Bank for reconstruction and development. Working paper, 61.

Richardson, H. W. (1970). Regional Economics: A Reader, London: Macmillan.

Romer, P. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, 98(5), 1002-1037.

Romer, P. (1990). Endogenous Technological Change. *The Journal of Political Economy*, 98(5), 71-101.

Rothe, F. and Schüler, D. (2006). Trust and economic growth: a panel analysis. Working papers 102.

Routledge, B. R. and von Amsberg, J. (2003). Social capital and growth. *Journal of Monetary Economics*, 50, 167-193.

Rupasingha, A., Goetz, S. and Freshwater, D. (2006). The production of social capital in US countries. *The Journal of Social Economics*", 35, 83-101.

Sabatini, F. (2005). Social capital as social networks. A new framework for measurement. Working paper (83). University of Rome La Sapienza, Department of Public Economics, June.

Sabatini, F. (2008). Does social capital improve labor productivity in small and medium enterprises? *International Journal of Management and Decision Making*, 9(5), 454-480.

Schiff, M. (1992). Social capital, labor mobility, and welfare: the impact of uniting states. *Rationality and Society*, 4, 157-175.

Schneider, G., Plumper, T., and Baumann, S. (2000). Bringing Putnam to the European regions. *European Urban and Regional Studies*, 7(4), 307–317.

Seibert, S. E., Kraimer, M. L. and Liden, R. C. (2001). A social capital theory of career success. *Academy of Management Journal*, 44(2), 219-237.

Shaffer, R. (1989). Community economies: economic structure and change in smaller communities, Iowa: Iowa State University Press.

Solow, R. M. (1956). A contribution to the theory of economic growth. *The Quarterly Journal of Economics*, 65-94.

Svendsen, G. L. and Svendsen, G. T. (2000). Measuring social capital: the Danish cooperative dairy movement. *Sociologia Ruralis*, 40, 72-86.

Şavkar, E. (2011). Sosyal sermayenin unsurları ve ekonomik kalkınmayla ilişkisi. Afyon Kocatepe Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Yüksek Lisans Tezi.

Thirlwall, A. P. (1996). Causes of growth and stagnation in the world economy. 143-190, New York: Cambridge University Press.

Thomas, C. Y. (1996). Capital markets, financial markets and social capital. *Social and Economic Studies*, 45(2-3), 1-23.

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of Political Economy*, 64, 416-424.

Tocqueville, A. (1994). Über die demokratie in Amerika. Reclam, Stuttgart.

Unni, A. S. (2014). A study of relationship between social capital and organizational citizenship behavior. *International Journal of Managerial Studies and Research (IJMSR),* 2(4), 76-81.

Uslaner, E.M. (1999). Democracy and social capital. Warren, M.E. (Ed.). *Democracy and Trust*, Cambridge University Press, 121–150.

Veblen, T. (1915). Imperial Germany and the industrial revolution. New York: Macmillan.

Young, A. A. (1928). Increasing returns and economic progress. *The Economic Journal*, 38(152), 527-542.

Whiteley, P. F. (2000). Economic growth and social capital. *Political Studies Association*, 48(3), 443–466.

Wolz, A., Fritzsch, J. and Reinsberg, K. (2006). The impact of social capital on Polish farm incomes: findings of an empirical survey. *Post-Communist Economies*, 18(1), 85-99.

Woodhouse, A. (2006). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory and Society*, 27, 151-208.

Woolcock, M. (1998). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory and Society*, 27, 151-208.

Woolcock, M. and Narayan, D. (2000). Social capital: implications for development theory, research and policy. World Bank Observer, 15, 225-250.

Woolcock, M. (2001). Using social capital: getting the social relations right in the theory and practice of economic development. Princeton, NJ: Princeton University Press.

World Bank. (1998). The initiative on defining, mentoring and measuring social capital: overview and program description. Working paper (1), Social Capital Initiative, Washington, April.

Zak, P. J. and Knack, S. (2001). Trust and growth. *Economic Journal*, 111(470), 295-321.