AN EXAMINATION OF THE IMPACT OF SOCIAL CAPITAL ON GROWTH IN THE AXIS OF DEMOCRATIZATION

DEMOKRATİKLEŞME EKSENİNDE SOSYAL SERMAYENİN BÜYÜME ÜZERİNDEKİ ETKİSİNİ YÖNELİK BİR İNCELEME

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ABSTRACT

The social capital phenomenon is considered as the missing link of growth by recent studies. Attention has been drawn to the determinant of institutional factors, especially a stable democratic structure, for the occurrence of an impact of social capital on growth. In this regard, our study, covering 138 countries over the period 2009-2018, consists of two research questions. Firstly, “Does the economic growth performance of countries depend on accumulation of social capital as well as the physical and human capital accumulation highlighted by the theory?” Secondly, “Does the impact of social capital on growth change depending on the democratization level of the countries?” Linear panel data analysis was employed to examine the first question and the panel threshold method proposed by Hansen (1999) was utilized for the second research question. This nonlinear approach constitutes the original value of our study. Our analysis results indicate that, in countries where the democratization level is above a certain level,

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social capital has a determining impact on growth. In this framework, our findings indicate that the establishment and maintenance of democratic structure is one of the substantial policy focuses in the process of social capital-led growth.

ÖZ


Key Words: Social Capital, Growth, Democracy, Panel Threshold Model
Anahtar Kelimeler: Sosyal Sermaye, Büyümeye, Demokrasi, Panel Eşik Modeli
JEL Classification: J20, O43, D72, C3

INTRODUCTION

Recent studies from various disciplines have often argued that social capital or interpersonal trust has important effects on both the efficiency of political institutions and the economic performance of communities. Like the notions of physical capital and human capital, “social capital” refers to the characteristics of a social organization such as networks, norms, and trust, which facilitate coordination and cooperation for mutual benefit. In this sense, social capital lowers transaction costs and increases the benefits of investments in physical and human capital, because it becomes easier to act together in a community with substantial accumulation of social capital. Moreover, social capital, which depends on trust and fosters coordination within society, is a key concept in tackling with drawbacks about how to overcome poverty and violence, how to ensure technology and industrial production and thus growth in underdeveloped countries, or how to foster democracy, which has taken on an outdated structure in most countries.
Unlike other types of capital, social capital is largely a public property in that the types of social structures that make social norms possible and the sanctions that enforce them benefit primarily those who are part of this structure, not the ones whose efforts are required to achieve them. For such reasons, the state should play an active role in the process with various fiscal policies to create and accumulate social capital.

In this framework, our study aims to examine the impact of social capital, which is one of the hot topics of social sciences, on growth indicated by annual per capita income change. The original value of this study and its contribution to the existing literature is that it takes into account whether the level of democratization of countries plays a decisive role when examining this relationship. To this end, the first part of the study presents a comprehensive conceptual and theoretical framework for social capital. The following section mentions the direct and indirect interactions among social capital, growth, and democracy. The third part presents a comprehensive analysis of empirical literature. The last section analyzes the impact of social capital on growth by means of the fixed effect model and the panel threshold method and evaluates the results.

1. SOCIAL CAPITAL: CONCEPTUAL AND THEORETICAL FRAMEWORK

The intellectual history of the concept of social capital can be traced back to Karl Marx (1818-1883), Emile Durkheim (1858-1917), Georg Simmel (1858-1918), John Dewey (1859-1952), and Max Weber (1864-1920). In their approaches, the emphasis on the role of culture in economic development points to an implicit use of the idea of social capital (Bhandari and Yasunobu, 2009: 487). While the letter and spirit of social capital have a long intellectual history in social sciences, the current meaning of this term comes from the writings of Hanifan in the first quarter of the 1900s. Hanifan first talked about the concept of social capital in 1916 and stated that the networks and relationships that people establish starting from their daily life significantly improve their living conditions, and eventually the social capital of the society accumulates over time (Hanifan, 1916: 130).

After Hanifan, the concept of social capital disappeared for 20-30 years. It was revisited by a team of Canadian urban sociologists in the 1950s, and a
theorist of change and an urban scientist in the 1960s, and an economist in the 1970s. However, Coleman’s (1988, 1999) studies on education and Putnam’s (1993a, 1995) studies on civic participation and institutional performance inspired new studies in nine primary areas: families and youth behavior, schooling and education, community life (virtual and civic participation), work and organizations, democracy and governance, collective action, public health and environment, crime and violence, and economic development (Woolcock and Narayan, 2000: 228-229). It was only in the 1980s that the concept of social capital gained permanence in the social science lexicon (Fukuyama, 2002: 23).

Fukuyama (1997) defined social capital as the presence of a certain set of informal values or norms shared between the members of a collaborative group. However, sharing values and norms does not generate social capital on its own, because values can be wrong. The norms that constitute social capital must include virtues like honesty, the keeping of commitments, and reciprocity. Moreover, social capital is primarily not a subset of human capital because it is the property of groups, not individuals. Therefore, the norms underlying social capital must be shared by more than one individual to have any meaning.

According to Putnam (1993a), social capital refers to the features of social organization such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated actions. Characterized in this way, social capital is productive like other forms of capital. It makes possible the achievement of certain ends that would not be attainable in its absence. This is so because a group whose members trust one another will be able to accomplish much more than a comparable similar group lacking that trust. For instance, let’s assume that there is a farming community where one farmer got his hay baled by another and where farm tools are extensively borrowed and lent. In this framework, social capital allows each farmer to get his work done with less physical capital. Besides, this definition by Putnam also provides a conceptual and methodological framework for understanding and measuring the development of civil society, which is considered very important for democratization (Putzel, 1997: 939-940).

Putnam made one of the most far-reaching contributions to the social capital hypothesis. His claim was that membership in associations strengthens political and economic efficiency even though the associations themselves play no role in either the polity or the economy. Structurally, Putnam’s proposition is
reminiscent of Max Weber’s thesis on the importance of religion in the workings of the economy (Arrow, 1999: 4). There is an implicit use of the idea of social capital in Max Weber’s The Protestant Sects and the Spirit of Capitalism. According to Weber’s argument, religious-type social networks -here Protestant sects- are extremely important for America’s economic growth. From a wider perspective, it is possible to say that Weber has a positive view of the possible consequences of social relation networks for economic activities (Trigilia, 2001: 428-430).

The most fundamental element of social capital is trust. At the individual level, trust is shaped by people’s social preferences, expectations about other people’s behaviors, general socioeconomic structures, and religious and political affiliations (Aktan and Çoban, 2008). The institutional context in which people operate is vital for institutions to build trust and reinforce collaboration. The key determinants of trust are the ability of institutions to fulfill their roles and the values and intentions that guide government action. Finally, trust involves an interaction between two or more people or entities, so the social context in which these interactions occur affects a person’s willingness to trust. This social context covers social engagement, community diversity, attitudes towards globalization, and ideals of how society should be organized (OECD, 2018: 12-14).

Coleman believed that the trustworthiness of the social environment is very important because trust promotes the norms that forgo self-interest and reinforces the idea that individuals must act in the interests of the collectivity to resolve collective action problems (Coleman, 1988: 104). Moreover, if interpersonal trust is high, this has positive effects on the functioning of the market economy, such as lower transaction costs, less need for the police state, less frequent occurrence of fraud, theft, and black economy. Therefore, it is possible to say that trust facilitates economic and social relations considerably (Whiteley, 2000: 443).

2. INTERACTION BETWEEN SOCIAL CAPITAL, GROWTH AND DEMOCRACY

Economic growth is very important for increasing human welfare. However, 40-60% of economic growth corresponds to total factor productivity that cannot be explained by growth factors. However, there is still uncertainty as to which factors play a key role in the formation of total factor productivity. In
recent years, many researchers have started to think that institutional factors may be the main reason for these differences. The representatives of new institutional economics such as Nobel laureate Douglas North in particular have discussed this point. North (1990) argued that formal and informal institutions are crucial to understanding economic performance. In this framework, social capital has been noted as one of the most interesting concepts (Hjerppe, 2003: 2-3).

Similarly, the literature on the determinants of growth, particularly Solow, Lucas, Barro, and Sala-i Martin, focused on natural capital, physical capital, and human capital and indicated them as the key determinants of economic growth. However, the focus on these three types of capital overlooks a critical aspect in the process of economic growth in that they do not explain how economic actors interact. More recently, some economists and political scientists suggested that the missing link is “social capital” (Iyer et al., 2005: 1016).

Vega-Redondo identified the stock of social capital owned by a particular community with the density and stability of social networks. Moreover, the interaction between market agents (i.e. social network) is the backbone of an economic system. The functions of the social network can be considered in two ways. On the one hand, the social network determines how market agents relate to each other in economic activities. On the other hand, it maps how relevant information underlying these activities flows between agents to complement this. Therefore, a correct understanding of many economic phenomena requires a good grasp of the interaction between economic behavior and the network architecture studied in a dynamic scenario (Vega-Redondo, 2006: 2306).

There seems to be widespread consensus on the plausibility of the hypothesis that social capital, particularly social networks, can affect economic performance (Arrow, 1999: 3). Most studies on development and growth (especially studies based on neo-classical economics) underline that intensive social capital (rather than intensive state intervention) is as important as factors such as high physical capital investment. For example, economic sociologist Mark Granovetter pointed out that economic transactions like contracting or job searches are more efficient when they are embedded in social networks (Putnam, 1993b: 5).
Another reason why social capital directly affects growth is that it allows actors to solve the problems of collective action. Dealing with problems, such as high negative externalities, is likely to be easier in societies with high interpersonal trust levels. However, in societies where social capital is not high enough, more allocation is made to additional transaction costs (such as the police force of the state and regulations to protect property rights) to execute contracts on a more solid basis. This is considered as a factor that reduces productivity. In this framework, for example, according to the Coase Theorem, when transaction costs are low, actors can reach collective action problems with external regulation and thus find solutions more efficiently. At this point, social capital makes it easier to find solutions to externality problems by lowering transaction costs, and this promotes growth by increasing economic efficiency (Whiteley, 2000: 451). In brief, according to micro studies, interpersonal trust has its greatest impact on economic performance when court institutions are relatively weak. However, according to most macro studies, social capital is unconditionally good for growth (Ahlerup et al., 2009: 1).

As mentioned above, most studies claim that social capital has a direct impact on growth. For example, authors such as Knack and Keefer (1997) and Zak and Knack (2001) showed that countries with higher trust levels are richer with many country examples. However, the fact that this impact of social capital on growth may occur through different indirect channels remains mostly an uncertain area. Undoubtedly, one of the main reasons for the differences in growth and income distribution between countries is that not all countries benefit from technological innovations equally, although they are widely available. Based on this view, the Neo-classical Solow growth model argued that the economic progress comes through technological change but leaves its sources unexplained (Hjerppe, 2003: 3). Similarly, Whiteley (2000: 444) argued that social capital appears to have about the same impact on growth as convergence, or “catch-up,” which refers to the ability of poorer nations to adopt technological innovations pioneered by their richer counterparts, thus bridges the gap between richer countries and them.

Other studies on growth argue that social capital indirectly affects the process through different channels. At this point, authors such as Akçomak and Weel (2008) concluded that social capital affects growth as long as it encourages innovations. Their study focused on social capital differences across regions.
and showed that a higher stock of social capital fosters more innovation. This is so mainly because innovation is a risky activity so it can be realized more easily based on interpersonal trust. The positive relationship between social capital and innovation fosters the production process and contributes to growth by increasing per capita income.

In addition to the impacts of social capital on economic activity summarized above, factors such as trust and civic norms can also indirectly improve economic outcomes through political channels. In other words, social capital improves the performance of the government and the quality of economic policies by affecting the level and character of political participation and is also effective in preventing the waste of resources caused by excessive bureaucracy and conflicts of interest of individuals (Knack and Keefer, 1997: 1254). This is one of the indirect channels through which social capital affects growth because trust, which is the most fundamental element of social capital, is also an important determinant of the democratization levels of countries. When the level of trust in government is low, government cannot effectively provide services since the policy goals and the process of implementations are not fully understood by the people. Therefore, trust in government and democracy, which are often considered as important determinants of economic growth, are expected to be positively affected by the increased level of social capital (Myeong and Seo, 2016: 1-2).

As mentioned above, social capital has a critical role in supporting democracy in the growth process. One of the necessary conditions for building a solid foundation for social democracy is the formation of strong partnerships based on trust, i.e. increasing social capital. Social capital can affect the democracy level in two ways. First, social capital can lead to the creation of democracy in an undemocratic country. Alternatively, it can help maintain or improve an already existing democracy (Paxton, 2002: 257). Moreover, there is generally a two-way relationship between the quality of government or the level of democratization and social capital. For example, Bjornskov’s (2006) empirical analysis suggested that the level of trust has a positive impact on the quality of government, whereas Rothstein (2000) argued that good government causes general trust (Ahlerup et al., 2009: 2).
In this framework, the literature frequently discusses the effects of the level of democratization on the growth processes of countries. For instance, the study by Acemoğlu et al. (2019) covering 175 countries for 1960-2010, provided evidence that democracy has a positive impact on GDP per capita and increases GDP by encouraging investment, improving fiscal capacity, increasing schooling and healthcare delivery, inducing economic reforms, improving public good provision, and reducing social unrest. Another study found that political rights are conducive to growth in more advanced sectors of an economy, while they do not matter or have a negative impact on growth in sectors far away from the technological frontier (Aghion et al., 2007: 19).

In societies with a relatively high level of social capital, government officials, and thus their policy statements, are perceived as more trustworthy. In such cases, trust also triggers further investment and other economic activities because the promises of central banks not to raise interest rates, the assurances of finance ministers that the nominal exchange rate will be fixed, or the guarantees that tax legislation will not be changed rapidly will probably be more believable in societies with high levels of trust among people (Knack and Keefer, 1997: 1253). Studies show that in countries with higher per capita income and fewer disturbances in income distribution, institutions that restrict the predatory acts of top managers are common, and countries with more educated and ethnically homogenous populations have stronger norms of trust and citizenship (Knack and Keefer, 1997: 1251).

To sum up, social capital can provide a unique opportunity to create productive new linkages among community groups, schools, employers, and workers without creating costly new bureaucracies (Putnam, 1993b: 6). When the representatives of the state, the corporate sector, and civil society establish common forums, through which they can pursue common goals, development can proceed. In these circumstances, social capital has a role as a mediating variable that is shaped by public and private institutions. This shaping is an inherently contentious and political process, and it is also a process in which the role of the state is crucial (Woolcock and Narayan, 2000: 238). This is so because the state is not only the ultimate provider of public goods (stable currencies, public health, universal education) and the final arbiter and enforcer of the rule of law (property rights, due process, freedom of speech and association), but is also actor best able to facilitate enduring alliances across the boundaries of
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class, ethnicity, race, gender, politics, and religion. However, when social capital is not built or is insufficient, state-society relations may degenerate into conflict, violence, war, or anarchy (Woolcock and Narayan, 2000: 236). For example, this is one of the main reasons why many countries were seriously concerned about the decline in trust in public institutions after the 2008 financial crisis. Indeed, trust in a wide range of public and private institutions declined in the OECD countries, which were affected most by the crisis (OECD, 2018: 7).

3. RELEVANT EMPIRICAL LITERATURE

Recent studies have seen social capital as the missing link of growth and considered it as a complement to the growth process. In this context, most recent studies have accepted as an undeniable fact that interpersonal trust has a great impact on economic performance. A review of relevant literature revealed the studies addressing the relationship between growth and social capital. These are given below.

The study by Helliwell and Putnam (1995), which we discuss first, asked how the northern parts of Italy became richer than the southern parts in the last 30 years although they had almost equal wealth at the beginning of the 20th century. They made analyses using the Ordinary Least Squares (OLS) method for 1950-1990. They hypothesized that some Italian regions were able to create and maintain higher levels of output per capita, by virtue of greater endowments of social capital. There was a more horizontal structure in the north while there was a vertical hierarchy in the south and this was an important determinant of civic community, citizen involvement, and governmental efficiency. However, greater openness and education levels have facilitated convergence in the growth levels and rates of poorer regions.

The study by Knack and Keefer (1997) aimed to provide evidence that social capital is important for economic performance, using indicators of trust from World Values Surveys for a sample of 29 market economies. Their study utilized the OLS estimator. It reached three main conclusions: First, trust and civic cooperation are associated with stronger economic performance. Second, association activities do not correlate with economic performance, contrary to Putnam’s (1995) findings for Italian regions. Third, the norms of trust and civic cooperation are stronger in countries with official institutions that effectively
protect property and contractual rights and in countries less polarized along the lines of class or ethnicity. Similarly, Hjerppe (1998) conducted a regression analysis using the data from World Values Survey for a sample of 27 countries for 1980-92 and examined the relationship between growth and social capital. Hjerppe found that social capital is an effective factor in explaining the economic growth differences between countries. In other words, trust is a necessary element for good economic performance. In fact, a 1% increase in the trust indicator increases the growth by 0.46%.

One of the studies that get many references in the literature focusing on the relationship between economic growth and social capital is by Whiteley (2000). Whiteley’s study examined this relationship in a sample of 34 countries in the period 1970-1992 with a modified neo-classical model of economic growth. Whiteley’s findings suggested that social capital has an impact on growth, which is at least as strong as that of human capital (education) and technological innovations. Other studies focused on the interaction between social capital and growth. For example, Pérez et al. (2006) studied 23 OECD countries in the period 1970-2001 with the dynamic panel data method. Their study confirmed that social capital can explain part of the economic growth in OECD countries. Estimates showed that social capital can affect output elasticity by 7-10%. However, not every study found a positive and significant relationship. For example, Beugelsdijk and Schaik (2005) conducted regression analyzes for 54 European regions for 1950-98. Their main conclusion was that there is a robust, positive, and significant relationship between regional economic growth and active membership. However, they found that variation in economic growth at the regional level in Europe was not directly associated with social capital in terms of trust.

The study by Boulila et al. (2008) explored the possible impacts of social capital on economic growth (per capita income growth rate) for some developed and developing countries during the period 1980-2000 using a simultaneous equation model. Their results were, first, the level of trust as a measure of social capital and growth are significantly and positively correlated. Second, a high level of trust also has an indirect impact on economic activity through its effect on institutional development. In other words, they corroborated that an improvement of the social infrastructure with high levels of trust and cooperation between individuals not only has a direct but also an indirect impact on economic
growth through the development of institutions in the economy. Ahlerup et al. (2009) indicated that the impact of social capital on economic performance was non-linear and depended on the quality of institutions. Their study used the OLS estimates and the instrumental variables (IV) methodology for different country groups for 1995-2005. They found that there was some kind of substitution relationship between social capital and institutions. Moreover, they estimated that, for example in Nigeria, where institutionalization was weak, a one-point increase in social capital increased economic growth by 1.8 points, whereas in Canada, where institutionalization was strong, the same increase in social capital increased growth only by 0.3 points.

In addition to these, we think that it is beneficial to look at the relevant literature on the relationship between democratization level and growth since our study focuses on the level of democratization while examining the impact of social capital on growth.

In our literature review, we see that the discussions on democratization and growth go back a long way and take up a large space. In addition to the study by Acemoğlu et al. (2019), which we mentioned in the second chapter, the study by Barro (1996) can also be mentioned here. Barro analyzed the relationship between growth and democratization for a panel of about 100 countries from 1960 to 1990. He demonstrated that the maintenance of the rule of law, the existence of free markets, small government consumption, and high human capital had a favorable impact on growth. He argued that democracy enhanced growth at low levels of political freedom, but depressed growth when a moderate level of freedom has already been achieved. In other words, he emphasized that increased democracy had a positive impact on growth in environments where political freedoms were underdeveloped whereas more democracy lost its positive impact on growth in already democratic countries. In their study, Tavares and Wacziarg (2001) examined the empirical relationship between democracy and economic growth in 65 developed and developing countries throughout 1970-1989. They assumed that democratic institutions affected growth through a series of channels. Their results suggested that democracy fostered growth by improving the accumulation of human capital and lowering income inequality. On the other hand, it hindered growth by reducing the rate of physical capital accumulation and raising the ratio of government consumption to GDP. Taking into account all these effects, they suggested that the overall impact of
democracy on economic growth was moderately negative. In short, democratic institutions were responsive to the demands of the poor by expanding access to education and lowering income inequality but do so at the expense of physical capital accumulation.

In this framework, when examining the relationship between social capital and growth, it is important to consider democratization, which is one of the institutional factors affecting the growth performance of countries. Therefore, our study aimed to examine the impact of social capital on growth, which is a social phenomenon and affects all areas of social life, by considering the literature that associated this phenomenon with the democratic structure (Paxton, 2002; Myeong and Seo, 2006). For this purpose, we focused on two main research questions. The first is “Does the economic growth performance of countries depend on the accumulation of social capital as well as the physical and human capital accumulation highlighted by the theory?” and the second is “Does the impact of social capital on growth change depending on the democratization level of the countries?” As the relevant empirical literature section suggested, there was a wide literature examining the first research question. The contribution and original value of our study emerged with the second research question. Thus, unlike other studies in the literature, our study examined the relationship between growth and social capital and questioned whether the democratization level of countries is a determinant in this relationship.

In this context, we followed a non-linear approach for the second research question. We examined the impact of social capital on growth in different regimes defined according to the level of democratization. In addition to its methodological superiority, our study differed from other studies in the literature in terms of the source and scope of its data. In this respect, unlike other studies on social capital, our study used the social capital index, which was prepared by Legatum Institute instead of the trust index (which is only a dimension of social capital) and obtained from the World Values Survey with the question “Do you think most people can be trusted in general? Or is it necessary to be very careful when

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3 The study by Paxton (2002) tested the relationship between democracy and associations (functionalized as social capital) with a panel approach within the framework of data from 46 countries obtained from the World Values Survey. The study found that there was a reciprocal causality relationship between social capital and democracy. Moreover, it found that associations affiliated with the wider community had a positive effect on democracy, whereas isolated associations had a negative effect. Myeong and Seo (2016) tested whether the increasing level and type of social capital could affect trust in government with multiple regression analysis and ANOVA. Their data were obtained from 350 randomly-sampled individuals in South Korea. The result of multiple regression analysis showed that bonding social capital had a negative relationship with the level of trust in government, while a bridging social capital had a positive relationship with the level of trust in government.
building relationships or doing business with others?" We opted for it because social capital is an indicator that measures the strength of personal and social relations, institutional trust, social norms, and civic participation in a country. In this framework, it can be asserted that one of the most comprehensive data on social capital is those calculated by Legatum Institute.

4. EMPIRICAL APPLICATION

4.1. Data

Empirical studies on growth take into account various social and institutional factors in addition to physical, human, and natural capital, and this becomes crucial for the complementarity of the findings. In this framework, the empirical part of our study aims to examine the impact of social capital on growth in 138 countries over the period 2009-2018 considering their democratization levels.

In our study, we considered the annual percentage change in per capita GDP as the dependent variable as an indicator of growth. Moreover, while modeling the relationship we included control variables that are frequently used in empirical literature such as trade openness, annual population growth rate, physical capital variable, human capital variable, and labor force participation rate besides the social capital index that was considered as an explanatory variable. Our threshold variable was the freedom and democracy index, which is the sum of the categories of political rights and civil liberties. Table 1 illustrates the brief explanations of the variables and the data sources.

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4 The list of sample countries are provided in appendix 1. The sample countries are selected with regard to data availability to compose a balanced panel. In addition, in this study, it was not preferred to make a comparison between country groups according to their development levels. As a matter of fact, the Hansen Panel Threshold method allows making an evaluation by dividing the sample into two different regimes (democratization level).
### Table 1: Definitions and Sources of Variables Used in the Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Variable unit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grw</td>
<td>Per capita GDP annual change</td>
<td>Percentage</td>
<td>World Bank / WDI (2020)</td>
</tr>
<tr>
<td><strong>Explanatory variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>soc</td>
<td>Social capital*</td>
<td>Index over 100 points</td>
<td>Legatum Institute (2020)</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tra</td>
<td>Trade openness**</td>
<td>Percentage of GDP</td>
<td>World Bank / WDI (2020)</td>
</tr>
<tr>
<td>pop</td>
<td>Annual population change</td>
<td>Percentage</td>
<td>World Bank / WDI (2020)</td>
</tr>
<tr>
<td>phy</td>
<td>Gross fixed capital formation***</td>
<td>Percentage of GDP</td>
<td>World Bank / WDI (2020)</td>
</tr>
<tr>
<td>hum</td>
<td>Education index****</td>
<td>Coefficient between 0-1</td>
<td>UNDP (2020)</td>
</tr>
<tr>
<td>lab</td>
<td>Labor force participation rate of the population aged +15</td>
<td>Percentage</td>
<td>World Bank / WDI (2020)</td>
</tr>
<tr>
<td><strong>Threshold variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dem</td>
<td>Freedom and democracy index</td>
<td>index over 100 points</td>
<td>Freedom House (2020)</td>
</tr>
</tbody>
</table>

* Data are calculated by weighting five different variables by different indicators. These are: Personal and Family Relationships, Social Networks, Interpersonal Trust, Corporate Trust, Civil and Social Participation. (The Legatum Institute Foundation, 2019: 48).

** It is calculated as the ratio of foreign trade volume (export and import volume) to GDP.

*** It is used as a physical capital indicator.

**** Education index is measured by the average years of schooling for adults aged 25 and over and the expected years of schooling for children starting school.

#### 4.2. Method and Findings

We applied two different frameworks of panel data analysis methodologically for our research questions. First, we made estimates with the following linear model approach in line with the question “Does the economic growth performance of countries based on the accumulation of social capital as well as the physical and human capital accumulation highlighted by the theory?:

\[
grw_{it} = \delta_{it} + \alpha_1 X_{it} + \alpha_2 dem_{it} + \beta_1 soc_{it} + \varepsilon_{it}
\]  

(1)
In the above equation (1), \( i \) shows units, and \( t \) indicates the time dimension. \( \delta_{it} \) refers to the fixed effects that affect economic growth. \( X_{it} \) is the vector of control variables presented in Table 1. \( dem_{it} \) is the democratization and freedom index of countries. \( \beta_i \) is the direction and severity of the impact of social capital on growth. \( \varepsilon_{it} \) is the error term, that is independently and identically distributed.

In this framework, Table 2 illustrates the results of the fixed effects model.

**Table 2: Results of the Fixed Effects Model**

<table>
<thead>
<tr>
<th>Dependent variable (growth)</th>
<th>Coefficient</th>
<th>Standard deviation</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>soc</td>
<td>0.0535853*</td>
<td>0.0287048</td>
<td>1.87</td>
</tr>
<tr>
<td>tra</td>
<td>0.0856387***</td>
<td>0.0080945</td>
<td>10.58</td>
</tr>
<tr>
<td>pop</td>
<td>-0.9252748***</td>
<td>0.1830959</td>
<td>-5.05</td>
</tr>
<tr>
<td>phy</td>
<td>0.1052543***</td>
<td>0.0273321</td>
<td>3.85</td>
</tr>
<tr>
<td>hum</td>
<td>7.628498*</td>
<td>4.348967</td>
<td>1.75</td>
</tr>
<tr>
<td>lab</td>
<td>0.0975958</td>
<td>0.0743676</td>
<td>1.31</td>
</tr>
<tr>
<td>dem</td>
<td>0.0047524</td>
<td>0.0201599</td>
<td>0.24</td>
</tr>
</tbody>
</table>

**F test (p value):** 24.43 (0.00)

**Number of observations: 1380**

**Number of countries: 138**

**Note:** (*) and (*** show significance at the level of 10% and 1%, respectively.

As mentioned above, in line with our study, we sought an answer to our first research question with a fixed effects model as an extension of a linear approach. The results in Table 2 indicated that there was a significant and positive relationship between the economic growth performance of countries and social capital accumulation. This was in line with the empirical literature. Moreover, increasing trade volume, fixed capital stock, and education level had a significant and positive impact on growth, but the population growth rate had a negative effect. However, we did not find a significant relationship between democracy and growth, and this was contrary to what Acemoğlu et al. (2019) asserted.
From a linear method perspective, our basic model for our first research question is consistent with the theoretical and empirical literature. The part of our study that is separated from the relevant literature emerges in our second research question, i.e. “Does the impact of social capital on growth change depending on the democratization level of the countries?” Thus, in the second part, we analyzed the relationship between social capital and growth from a more comprehensive perspective and took into account the impact of the level of democracy, which is an institutional factor. For this, we took the linear panel data analysis further and questioned the issue with a non-linear approach.

In this context, the second part of our study evaluated the impact of social capital on growth under two separate regimes that differ according to democratization levels within the framework of the threshold value approach developed by Hansen (1999). According to the method of Hansen (1999), the sample is internally divided into subgroups and threshold values are estimated. Thus, the relationship in question can be defined in different ways as sensitive to the threshold value. Besides, a resampling (bootstrap) method is defined to evaluate the statistical significance of the threshold effect. Thus, the observations are examined by dividing them into two different regimes according to whether they are greater or less than the threshold value (Hansen, 1999: 346-347). In this framework, equation (2) illustrates the single-threshold representation of the model adapted according to the purpose and variables of our study:

\[
grw_{it} = \delta_{it} + \alpha_1 X_{it} + \beta_1 soc_{it} + \varepsilon_{it}, \text{dem}_{it} \leq \lambda
\]

\[
grw_{it} = \delta_{it} + \alpha_2 X_{it} + \beta_2 soc_{it} + \varepsilon_{it}, \text{dem}_{it} > \lambda
\]

In equation (2), \(\delta_{it}\) is the fixed effects indicating the heterogeneity of countries with different levels of democratization. \(X_{it}\) is the vector of variables defined as control variables in Table 1. \(\beta_1\) and \(\beta_2\) are the slope parameters that reveal the differential effect of the level of social capital under two regimes specified in terms of different levels of democratization. \(\text{dem}_{it}\) is the regarding threshold variable, which is either above or below the threshold value (\(\lambda\)) in two sub-models. Table 3 presents the estimation results of the regression (2).
Table 3: Results of the Panel Threshold Analysis

<table>
<thead>
<tr>
<th>Dependent variable (growth)</th>
<th>Coefficient</th>
<th>Standard deviation</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>tra</td>
<td>0.0872203 ***</td>
<td>0.0080696</td>
<td>10.81</td>
</tr>
<tr>
<td>pop</td>
<td>-0.9067518 ***</td>
<td>0.1817331</td>
<td>-4.99</td>
</tr>
<tr>
<td>phy</td>
<td>0.0997487 ***</td>
<td>0.0272657</td>
<td>3.66</td>
</tr>
<tr>
<td>hum</td>
<td>7.738292*</td>
<td>4.321917</td>
<td>1.79</td>
</tr>
<tr>
<td>lab</td>
<td>0.0900376</td>
<td>0.0730924</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Threshold variable: dem≤36

| soc                         | 0.0206376     | 0.0302402          | 0.68        |

Threshold variable: dem>36

| soc                         | 0.0630909 **  | 0.0287107          | 2.20        |

F test (p value): 26.18 (0.00)

Number of observations: 1380

Number of countries: 138

Note: (*), (**) and (***) show significance at the level of 10%, 5% and 1%, respectively.

We found evidence supporting that, in countries where the level of democratization was above 36 index points (that is, countries with a relatively higher level of democratization), social capital was a significant and positive determinant of growth, which was in line with the literature and the findings of the first research question. On the other hand, in countries where the democratization level was below 36 index points, social capital did not have a significant impact on growth. This was of critical importance as it indicated that institutionalization -as an extension of democratization- was a determinant of growth and welfare.

Moreover, the control variables utilized in the study indicated that there was a significant and positive relationship between the trade deficit as an indicator of trade volume, the fixed capital stock as an indicator of physical capital, and ultimately the education index and growth as an indicator of human capital. On the other hand, we found that the population growth rate had a significant and negative impact on growth, whereas there was no significant relationship between labor force participation rate and growth.
CONCLUSION

While social capital is a concept possessing a historical background, it has been on the agenda of academic discussions for the last 30 years as a complex and multidimensional notion that covers cultural and social value systems. It measures how compatible a society is in terms of trusting, respecting, and helping each other, and the institutional structures with which it interacts. An individual’s well-being is best achieved in a society where people trust each other and have the support of friends and family. Societies with lower levels of trust tend to experience lower levels of economic growth and social well-being. One of the main reasons why most social scientists view social capital as a key component in both economic development and stable liberal democracy is that it lowers transaction costs and facilitates cooperation. Therefore, the development of norms that support social trust is desired by all societies. In fact, many studies define trust (trust in institutions and other people) as a fundamental component of social and economic progress. However, when the level of trust decreases, the government cannot effectively enforce its policies, and this can eventually lead to a vicious cycle of distrust.

Within the framework of such a perspective, our study set out from two basic research questions based on the balanced data of 138 countries over the period 2009-2018. The first is “Does the economic growth performance of countries depend on the accumulation of social capital as well as the physical and human capital accumulation highlighted by the theory?” and the second is “Does the impact of social capital on growth change depending on the democratization level of the countries?”. To shed light on these questions, we employed two different methods in our study, which carries out linear and nonlinear approaches respectively. Considering that there is a wide literature dealing with the first research question, the original value of this study comes out in the second research question which we examined by means of Hansen’s (1999) fixed-effect panel threshold approach.

From a linear method perspective, our basic model for our first research question is consistent with the theoretical and empirical literature (Helliwell and Putnam, 1995; Knack and Keefer, 1997; Hjerpe, 1998; Whiteley, 2000; Bouliba, et al., 2008). The part of our study that differs from the relevant literature emerges with our second research question. Thus, in the second part, we analyzed the relationship between social capital and growth from a more comprehensive
perspective and took into account the impact of the level of democracy, which is an institutional factor. The results of nonlinear panel threshold approach of Hansen (1999) indicated that the threshold value for democratization and freedom was 36 points. We found that there was no significant relationship between social capital and growth below this threshold value, while social capital had a significant and positive impact on growth above 36 points. This provides evidence that factors such as political rights and civil liberties determine the impact of social capital on growth. In other words, the importance attached to institutional factors, particularly democratization, has greater implications on growth and social welfare. For this reason, the democratization level of countries stands out as a point that should not be ignored while determining the impact of social capital on growth. Therefore, it is very important to approach public policy designs to increase social capital and thus its effectiveness with this knowledge in mind.

As a policy remark, it is vital to attach importance to the quality of institutional factors, particularly democracy to promote the effect of social capital on growth. The idea behind is that trust in government which is a principal component of social capital is based on an effective public administration with a high level of democratization and a strong social structure. Otherwise, as cooperation and coordination between the government and citizens becomes more difficult, transaction costs increase and growth slows down. In this context, the establishment of democratic rights such as voting, participation in decision-making processes, obtaining information transparently, and freedom of speech, increases trust in the public sector and hence the social capital. In other words, policies should be accountable and transparent and supported by civil participation. In addition, states should encourage the creation of social capital by effectively providing public goods, particularly property rights and public safety. Because, if people are worried about their lives and property, they cannot gather freely, volunteer and vote. Social capital is more likely to increase when a stable and safe environment for public interaction is provided. It is very important to pay attention to these issues in both developed and developing countries. However, considering that the level of democratization is generally lower in developing countries, it can be asserted that developing countries should give priority to these points.
REFERENCES


Appendix 1: List of Sample Countries

Afghanistan, Angola, Albania, United Arab Emirates, Argentina Armenia, Australia, Austria, Azerbaijan, Burundi, Belgium, Benin, Burkina Faso, Bangladesh, Bulgaria, Bahrain, Bosnia And Herzegovina, Belarus, Belize, Bolivia, Brazil, Botswana, Central Africa Republic, Canada, Switzerland, Chile, China, Cote D’ivoire, Cameroon, Colombia, Comoros, Costa Rica, Cuba, Cyprus, Czech Republic, Germany, Denmark, Dominican Republic, Algeria, Ecuador, Egypt, Spain, Estonia, Finland, France, Gabon, England, Georgia, Ghana, Guinea, Gambia, Guinea-Bissau, Equatorial Guinea, Greece, Guatemala, Guyana, Hong Kong, Honduras, Croatia, Hungary, Indonesia, India, Ireland, Iraq, Iceland, Israel, Italy, Jamaica, Jordan, Japan, Kazakhstan, Kenya, Kyrgyzstan, Cambodia, S. Korea, Lebanon, Liberia, Sri Lanka, Lesotho, Lithuania, Luxembourg, Latvia, Morocco, Moldova, Madagascar, Mexico, N. Macedonia, Mali, Malta, Myanmar, Montenegro, Mozambique, Mauritania, Mauritius, Malawi, Malaysia, Namibia, Niger, Nigeria, Nicaragua, Netherlands, Norway, Nepal, New Zealand, Oman, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Paraguay, Romania, Russia, Rwanda, Saudi Arabia, Sudan, Senegal, Singapore, El Salvador, Serbia, Slovakia, Slovenia, Sweden, Chad, Togo, Thailand, Tunisia, Turkey, Uganda, Ukraine, Uruguay, USA, Uzbekistan, Vietnam, South Korea, Zimbabwe.
DEMOKRATİKLEŞME EKSENİNDE SOSYAL SERMAYENİN BÜYÜME ÜZERİNDEKİ ETKİSINE YÖNELİK BİR İNCELEME

Nazmiye TEKDEMİR
Pelin VAROL İYİDOĞAN

GENİŞLETİLMİŞ ÖZET


Fiziksel sermaye ve beşeri sermaye nosyonlarına benzer şekilde “sosyal sermaye”, karşılıklı yarar için koordinasyonu ve iş birliğini kolaylaştıran ağlar, normlar ve güven gibi sosyal organizasyonun özelliklerini ifade etmektedir. Bu haliyle sosyal sermaye işlem maliyetlerini düşürmekte, fiziksel ve beşeri sermayeeye yapılan yatırımların da faydasını artırmaktadır. Çünkü önemli derecede sosyal sermaye birikimine sahip bir topluluğa, birlikte hareket etmek çok daha kolay bir hale gelmektedir. Ayrıca güven temeline dayanan ve toplum içindeki koordinasyonu besleyen sosyal sermaye; yoksulluğun ve şiddetin nasıl üstesinden gelineceğini, geri kalmış ülkelerde teknolojinin ve endüstriyel üretim ve böylelikle büyümünün nasıl sağlanmasıyla ve çoğu ülkede demokrasinin nasıl besleneceği dair problemli soruların cevaplanmasına da kilit bir kavram olarak görülmektedir.

Kısaca son dönem çalışmalarda ekonomik büyüme sürecinin kayıp halkası olarak görülen sosyal sermayenin etkisi, başta istikrarlı demokratik bir yapı olmak üzere kurumsal faktörlerle oldukça ilişkilidir. Bu kapsamda; sosyal sermaye ve büyüme ilişkisi incelenirken, ülkelerin büyüme performansı üzerinde etkili kurumsal faktörlerden başlıcası olan demokratikleşmenin de dikkate alınması önem taşımaktadır.

Böyle bir bakış açısı çerçevesinde hazırlanan bu çalışmada; 2009-2018 yılları için dengeli panel ile çalışılabilecek 138 ülkenin verileri kapsamdında iki temel araştırma sorusundan yola çıkılmıştır. Bunlardan ilki; “Ülkelere ekonomik büyüme performansı, teorinin ön plana çıkardığı fiziki ve beşeri sermaye birikiminin yanı sıra sosyal sermaye

Doğrusal bir yöntemle ele alınan ilk araştırma sorusuna yönelik temel modelin sonuçları incelendiğinde, ulaşılan bulguların teorik ve ampirik yazıla örtüştüğü görülmektedir. Çalışmanın ilgili literatürden ayrılan ve doğrusal panel veri analizinin bir adım öteye tasarınarak doğrusal olmayan bir yaklaşımın kullanıldığı diğer bir ifadeyle; sosyal sermayenin büyüme üzerindeki etkisinin demokratikleşme seviyelerine göre farklılaşmış iki ayrı rejim altında değerlendirildiği, sosyal sermayenin büyüme üzerindeki etkisinin demokratikleşme düzeyinin 36 endeks puanın üzerinde olduğu ülkelerde olması nispeten demokratikleşme seviyelerinin daha yüksek olduğu ülkelerde, literatürle ve ilk araştırma sorusunun bulgularıyla paralel olarak, sosyal sermayenin büyüme üzerinde anlamlı ve pozitif yönü bir belirenlidığı oldukça tahmin edilmiştir. Buna karşın demokratikleşme düzeyinin 36 endeks puanın altında olduğu ülkelerde sosyal sermayenin büyüme üzerinde anlamlı bir etkisi bulunamamıştır.