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Understanding the Role of Social Capital in Promoting Knowledge-Based Growth in Europe

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Abstract

Social capital, as defined by the OECD, encompasses networks along with shared norms, values, and understandings that facilitate cooperation within or among groups. It is increasingly recognized as one of the key drivers of economic development. While much of the existing literature has explored the relationship between social capital and economic growth, this study focuses on a different aspect: the role of social capital in fostering smart growth within EU countries. Smart growth is a concept that emphasizes the importance of knowledge and innovation as central pillars of economic development. It is a key component of the European Union's strategic development objectives, aiming to create a more sustainable, inclusive, and innovative economy. The concept of smart growth, along with its determining factors and measurement methodologies, represents a relatively new approach in the context of EU policy. The purpose of this study is to investigate how social capital influences the processes of smart growth in EU countries. To achieve this, the study employs a soft modeling method, which is particularly well-suited for measuring and analyzing the relationships between unobserved variables. This methodological approach allows for a nuanced understanding of the complex interplay between social capital and the various dimensions of smart growth. The findings of this study are expected to provide valuable insights into how social capital can be leveraged to enhance smart growth across the EU. By examining the role of social capital in this context, the study contributes to a deeper understanding of how social networks and shared values can drive innovation and knowledge-based economic development. This research highlights the critical importance of social capital in achieving the EU's strategic objectives for smart growth. The results have important implications for policymakers, suggesting that efforts to build and strengthen social capital could play a significant role in promoting innovation-driven economic progress within the EU.

Keywords: Social Capital, Smart Growth, Economic Development, EU Policy, Innovation

JEL Codes: O43, R11, Z13

1. INTRODUCTION

The concept of social capital emerged as a response to the challenges in explaining differences in economic growth across countries. Traditional production factors such as physical capital, labor, and human capital were not enough to account for the disparities in economic growth rates or levels of development between nations. Consequently, researchers shifted their focus to include social, cultural, political, and psychological factors, which seemed to play a significant role in shaping economic outcomes. Social capital, in this context, refers to the networks, relationships, norms, and trust that facilitate cooperation and collective action within a society. It encompasses the social connections and shared values that enable individuals and groups to work together effectively, thereby influencing economic activities, institutional quality, and social cohesion. The idea is that societies with higher levels of social capital can better coordinate efforts, share information, and foster innovation, leading to improved economic performance and development outcomes. The inclusion of social capital in economic analysis acknowledges that economic growth is not solely driven by material resources or individual capabilities. Rather, it is also shaped by the quality of social interactions, institutional trust, and the degree of civic engagement. These factors can affect how resources are utilized, how efficiently markets function, and how policies are implemented.

By incorporating social capital, researchers aim to provide a more comprehensive explanation for cross-country disparities, recognizing that intangible social factors can significantly impact economic trajectories. The concept has broadened the scope of economic analysis to include elements that contribute to social well-being and sustainable development, suggesting that fostering social capital can be as crucial as investing in physical and human capital for achieving long-term growth and development. The recognition that social relationships, networks, norms, and values play a crucial role in the functioning and development of society has a long history across various disciplines, including economics, sociology, anthropology, and political science. However, it was only within the past two decades that the concept of social capital emerged as a unifying idea, incorporating these multidisciplinary perspectives into a cohesive framework (Grootaert and van Bastelaer, 2001). Researchers like James Coleman (1988, 1990), Robert Putnam (1993), and Pierre Bourdieu (1986) have significantly contributed to developing the concept, each bringing their unique viewpoints to the discourse.

Coleman, for example, introduced social capital as a resource that individuals can draw upon within their social networks to facilitate collective action and achieve certain goals. He emphasized the role of social structures in providing the context for

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individuals to act and the importance of trust, reciprocity, and obligations within social networks. Robert Putnam, on the other hand, popularized the idea of social capital in his studies of civic engagement, particularly in "Bowling Alone" (2000), where he argued that social capital plays a vital role in fostering civic involvement, trust in institutions, and overall social cohesion. He distinguished between "bonding" social capital, which reinforces exclusive identities and homogeneous groups, and "bridging" social capital, which connects diverse social groups. Pierre Bourdieu contributed to the concept from a different angle, focusing on how social capital can be viewed as a form of capital alongside economic and cultural capital. He highlighted how individuals and groups use social networks and connections to gain access to resources and maintain their social positions. For Bourdieu, social capital was closely tied to power dynamics and social inequality, as access to networks often depended on one's existing social and economic position. Together, these scholars laid the groundwork for understanding social capital as a multidimensional concept that encompasses the social norms, networks, and relationships that enable society to function effectively. Social capital has thus become a vital concept for exploring how social factors contribute to economic development, institutional performance, and individual well-being. The lack of a universal definition and precise measurement method for social capital is not attributed to any inherent methodological shortcomings or a lack of development within the concept itself. Instead, it arises from the complex and multi-dimensional nature of social capital (Bartkowski, 2007; Imran et al., 2022). The concept encompasses various aspects, such as trust, social networks, norms of reciprocity, and civic engagement, making it difficult to pin down a single, all-encompassing definition or straightforward measurement.

Different scholars have emphasized various components of social capital depending on their research focus. For instance, some studies prioritize the role of trust and shared values, while others emphasize the importance of social networks and the strength of relationships within a community. The diversity in these perspectives makes it challenging to consolidate the concept into a universally agreed-upon definition. Similarly, measuring social capital presents difficulties, as it involves capturing both quantitative and qualitative dimensions. While quantitative approaches might look at indicators like membership in organizations, frequency of social interactions, or voter turnout, qualitative approaches may focus on assessing the depth of trust within communities or the quality of relationships among individuals. This multi-faceted nature means that any attempt to measure social capital must account for different variables that interact in complex ways. The ongoing debates and diverse approaches to defining and measuring social capital highlight its richness as a concept. However, they also underscore the need for flexible, context-specific frameworks that can capture the varied manifestations of social capital across different societies and settings.

Social capital can be understood through its scope, forms, and the ways it influences development. When considering its scope, social capital can manifest at various levels, such as the individual, household, community, organizational, or even national levels. At the individual or household level, it may involve personal relationships, networks, and connections that provide support and access to resources. In the context of communities or organizations, it encompasses broader networks, shared norms, and values that facilitate collective action and cooperation. At the national level, social capital may be reflected in the level of trust in institutions, civic engagement, and social cohesion that impact the development of society as a whole. In terms of forms, social capital can take different shapes. Bonding social capital refers to the close ties within groups like families or communities, creating a sense of belonging and identity, although it may also result in exclusivity. Bridging social capital involves connections across diverse groups or individuals, allowing access to new resources, information, and opportunities beyond one's immediate circle, promoting social inclusion and the exchange of ideas. Linking social capital connects individuals or groups to institutions with different levels of power or influence, such as government agencies or NGOs, playing a crucial role in accessing resources and services not readily available within one’s immediate network.

Social capital influences development through various channels. It can facilitate cooperation and coordination by fostering trust and shared norms, thus reducing transaction costs and making it easier for people to collaborate. It also enhances access to information as networks can serve as conduits for the flow of valuable information, aiding decision-making, innovation, and economic opportunities. Additionally, social capital can improve governance and institutional performance, with high levels of social capital leading to better governance outcomes since citizens are more likely to participate, hold institutions accountable, and collaborate for the common good. Beyond governance, social capital supports economic and social development by fostering entrepreneurship, promoting job creation, enhancing the labor force's adaptability, and contributing to improvements in health, education, and quality of life. Understanding these aspects of social capital helps to appreciate the many ways in which it affects different dimensions of societal progress. The concept’s multidimensional nature makes it a vital component in addressing cross-country disparities in economic growth and social development. Putnam (1993) is often credited with a foundational analysis of social capital at the micro level, where he defines it as the features of a social organization—such as networks, norms, and values—that generate externalities beneficial to the entire community. This conceptualization highlights how social ties and the associated cultural elements within a group contribute to collective action and social cohesion, promoting the welfare of the group as a whole.

Coleman (1990) expanded this idea by broadening the scope of social capital to include a vertical dimension. His definition views social capital as a variety of entities embedded in the social structure that facilitate specific actions by actors—whether individuals or organizations—within that structure. This perspective implicitly considers not only the relations among individuals but also the relations among groups. By introducing the idea that social capital exists within the structure of social networks, Coleman’s work allows for the inclusion of both horizontal (peer-based) and hierarchical (authority-based)

relationships. The third perspective on social capital extends beyond local and informal relationships to include the macro-level institutional environment that influences the formation and functioning of social structures. This approach considers formal institutional arrangements, such as political systems, legal frameworks, and civil and political rights, as components of social capital that shape societal norms and social behaviors. The focus on institutions draws on the works of North (1990) and Olson (1982), who argue that the quality of institutions, including the rule of law and regulatory structures, significantly affects the rate and direction of economic development. This institutional view emphasizes the role of formal structures in enabling or constraining social capital's effects on broader economic and social outcomes. Together, these three perspectives illustrate the multifaceted nature of social capital, encompassing micro-level interactions within communities, meso-level relationships among groups, and macro-level institutional frameworks. Each dimension plays a crucial role in shaping how social capital contributes to the development and functioning of societies. Researchers often distinguish between two primary forms of social capital: structural and cognitive. The structural form is linked to various aspects of social organization, including roles, rules, precedents, procedures, and diverse networks that facilitate cooperation. This form of social capital helps enable collective action that is mutually beneficial, generating a stream of benefits derived from the social connections and organizational structures in place. It is considered a relatively objective and externally observable aspect of social capital, as it is reflected in the visible arrangements and patterns of social interactions.

On the other hand, cognitive social capital arises from mental processes and the resulting ideas, which are influenced by cultural and ideological factors. It encompasses norms, values, attitudes, and beliefs that foster cooperative behavior and support collective action. These cognitive elements shape how individuals perceive their social environment and influence their willingness to engage in cooperative activities. Since it relates to internal states of mind and cultural influences, cognitive social capital is seen as a more subjective and intangible dimension. Together, structural and cognitive forms of social capital contribute to the overall capacity of a society or community to achieve cooperation and mutual benefits. The World Bank's "Social Capital Initiative" offered a definition of social capital that highlights its broad societal role: "The social capital of a society includes the institutions, the relationships, the attitudes, and the values that govern interactions among people and contribute to economic and social development" (World Bank, 1998). This definition emphasizes how social capital encompasses not only interpersonal relationships but also the formal and informal institutions that shape how individuals and groups interact. These interactions, in turn, play a crucial role in facilitating economic growth and fostering social cohesion. The inclusion of values and attitudes in this definition acknowledges that cultural and ideological factors significantly influence how social capital functions within a given society.

The OECD's definition of social capital in *The Well-being of Nations: The Role of Human and Social Capital* underscores the importance of social networks and the shared values, norms, and understandings that enable people to work together. These networks can include a variety of relationships, from informal personal connections to more formalized associations and institutional linkages. The shared norms and values play a critical role in building trust, fostering cooperation, and facilitating collective action, which are essential for achieving common goals and addressing social challenges. This definition suggests that social capital is not just about the quantity of connections or interactions but also about the quality of these relationships and the extent to which they contribute to social cohesion. Social capital helps to create a social environment where individuals and groups feel more inclined to cooperate rather than act in isolation or in competition with one another. By emphasizing cooperation, the OECD acknowledges that social capital can significantly impact economic and social development by fostering a sense of community, increasing civic engagement, and supporting the effective functioning of institutions. Moreover, the OECD's approach to social capital aligns with the idea that the well-being of a society extends beyond economic measures like GDP. It recognizes that social networks and shared cultural values are integral components of social prosperity and can influence economic outcomes by improving productivity, enhancing social stability, and providing social support. This broader view is important because it connects social capital with human capital and physical capital as necessary components for sustainable development.

In practical terms, building social capital involves nurturing trust and reciprocity in relationships, supporting community-based organizations, and promoting policies that encourage social participation and engagement. The OECD highlights that social capital can manifest at different levels, from individual relationships to larger community and institutional interactions, all contributing to the overall social fabric that supports cooperative behavior and collective well-being. The European Commission's definition of social capital, as proposed in *The Contribution of Social Capital in the Social Economy to Local Economic Development in Western Europe*, emphasizes the resources within communities that arise from strong social ties and shared values. The components outlined—trust, reciprocity, mutuality, shared norms, commitment, and a sense of belonging—are critical for building a cohesive society. The definition stresses the role of both formal and informal social networks, which provide platforms for collaboration and support among community members. These networks serve as conduits for effective information flow, enabling individuals and groups to leverage social capital productively to undertake actions that benefit not only themselves but also the broader community. The focus on trust and reciprocity reflects the idea that when people believe in the reliability and integrity of others, they are more willing to engage in cooperative behavior. This mutual trust is essential for reducing transaction costs, facilitating the sharing of resources, and creating an environment conducive to economic activity. Reciprocity, the expectation that kindness or support given will be returned, encourages individuals to participate in community life and build stronger connections, which in turn fosters social stability and resilience. The mention of shared norms and behaviors points to the cultural dimension of social capital, where common

values and practices guide how people interact. When community members follow shared social norms, it helps to create predictable patterns of behavior, further strengthening trust and facilitating cooperation. Additionally, the sense of shared commitment and belonging enhances social cohesion, making people more inclined to work together to achieve common goals. Formal and informal social networks are crucial for building social capital because they allow for diverse forms of engagement and connection. Formal networks may include structured organizations like community groups, cooperatives, or local associations, while informal networks could consist of friendships, family ties, or neighborhood connections. Both types of networks are necessary for fostering a well-rounded social environment where information flows freely and collective action can be organized efficiently. Effective information channels enable communities to mobilize resources and respond to challenges quickly, making social capital a valuable asset for local economic development. For instance, social capital can support entrepreneurship by providing access to knowledge, resources, and support networks that are necessary for starting and sustaining businesses. It also plays a role in workforce development by facilitating job matching and skill-sharing within the community.

The European Commission's definition highlights how social capital functions as an enabler of economic activity and social well-being, suggesting that communities with strong social capital are better positioned to achieve sustainable economic development. By recognizing social capital as a foundational resource that can be harnessed to address local issues, the definition aligns with the broader view that economic growth and social progress are interconnected, and that investing in social capital can yield significant benefits for individuals, groups, and society as a whole. The literature on social capital and economic growth consistently emphasizes its significant role in shaping economic outcomes. Social capital's influence can be understood through both microeconomic and macroeconomic channels, with trust and cooperation serving as key mechanisms that impact the functioning of businesses, industries, markets, and broader economic systems. At the microeconomic level, social capital within companies, industries, or markets is instrumental in reducing transaction costs, which are often associated with verifying and enforcing agreements between economic agents. High levels of trust and cooperative behavior among stakeholders can minimize the need for extensive legal protections and monitoring, making business transactions smoother and less costly. This reduction in transaction costs allows companies to operate more efficiently and focus on value-adding activities rather than legal disputes or negotiations. Furthermore, trust and cooperation can help to secure better access to credit, as lenders are more likely to extend favorable terms to borrowers in an environment characterized by strong social ties and reliable reputations. Social networks can also facilitate the sharing of information and knowledge, which supports innovation and entrepreneurial activities within markets.

In a macroeconomic context, social capital can enhance the effectiveness of economic policies by fostering a stable and cooperative social environment. For example, public policies aimed at stimulating economic growth may yield better results when social capital levels are high, as communities with strong social cohesion are more likely to support and comply with government initiatives. Additionally, social capital can facilitate the implementation of policies related to public health, education, and infrastructure development, as trust in institutions and social networks helps to overcome resistance and mobilize resources. In this sense, social capital acts as a form of "institutional lubricant," making it easier for governments to achieve policy objectives and for economies to grow. Empirical studies investigating the link between social capital and economic growth often rely on aggregate measures of social capital, such as trust levels in society. The World Bank's measure of trust, for example, is frequently used as a proxy for social capital in cross-country analyses. Trust is considered a suitable proxy because it captures the generalized expectation of honesty and cooperation within a society, which is essential for economic interactions. Higher trust levels are correlated with lower transaction costs, greater civic engagement, and higher levels of collective action, all of which contribute positively to economic growth.

However, while many empirical studies find evidence of a positive correlation between social capital and economic growth, they often do not distinguish between the microeconomic mechanisms (like reduced transaction costs and better credit access) and macroeconomic mechanisms (such as improved policy effectiveness and institutional performance) through which social capital exerts its influence. This lack of distinction could potentially limit the understanding of how social capital specifically contributes to economic development at different levels. Nonetheless, the overall consensus in the literature is that social capital plays a beneficial role in fostering economic growth, although the exact pathways may vary across contexts and depend on how social capital interacts with other economic and institutional factors.

The concept of smart growth has gained prominence as a key objective within the European Union's strategic development goals, particularly under the Europe 2020 strategy. It emphasizes the importance of fostering an economy based on knowledge and innovation to drive sustainable and inclusive development. While smart growth is a relatively new concept, it has already been the subject of academic discussion by researchers such as Bal-Domańska, Markowska and Strahl, and Skrodzka. However, the body of literature on this topic remains limited, with scholars frequently pointing to the need for more extensive research. Smart growth focuses on enhancing the role of knowledge, research, and innovation to improve productivity and competitiveness, ensuring that economic progress is sustainable and long-term. The approach advocates for investment in education, research and development (R&D), digital infrastructure, and skills development, thereby enabling countries and regions to better adapt to changing economic conditions and technological advancements. By encouraging economies to become more innovative and adaptable, smart growth aims to create a dynamic environment where businesses can thrive and new technologies can be developed. The measurement of smart growth typically involves assessing a variety of indicators related to R&D expenditures, educational attainment, employment in high-tech sectors, and the level of digitalization in

society. These indicators are often used to gauge the knowledge intensity of an economy and its potential for innovation-driven growth. However, the exact choice of indicators and their interpretation can differ across studies, reflecting the evolving nature of the concept. Researchers like Bal-Domańska, Markowska, and Skrodzka have explored different facets of smart growth, such as regional disparities in knowledge-based development, the role of policy frameworks in fostering smart growth, and the effectiveness of specific smart growth strategies. Their findings highlight the complexity of translating the concept into practical policy measures, as well as the challenges associated with measuring progress toward smart growth objectives.

The consensus among scholars is that there is a need for further research to deepen the understanding of smart growth, both in terms of its theoretical underpinnings and its empirical applications. Future studies could focus on refining the measurement methods, identifying the key factors driving smart growth in different contexts, and analyzing the impact of smart growth policies on economic outcomes. This would provide valuable insights into how economies can better leverage knowledge and innovation to achieve sustainable development and enhance competitiveness in the global market.

2. DISCUSSIONS

Factor loadings, which are essentially correlation coefficients, quantify the relationship between observed indicators and the underlying latent variables. These loadings indicate how much each indicator contributes to explaining the variability of the latent variable, as well as the direction of this relationship. Higher absolute values of factor loadings suggest that the corresponding indicator is more strongly related to the latent variable, with positive or negative signs showing the direction of association. When constructing a latent variable inductively, the process involves ordering the indicators based on their factor loadings. This ordering helps identify which indicators most effectively represent the latent construct, allowing researchers to focus on those with higher loadings. In practice, indicators with lower factor loadings may be considered less relevant for defining the latent variable, and might be excluded or given less emphasis in further analysis. Factor loadings play a crucial role in exploratory factor analysis, confirmatory factor analysis, and structural equation modeling, where they serve as key components for evaluating the validity and reliability of the latent constructs being measured. By examining these coefficients, researchers can make informed decisions about the structure and interpretation of the latent variables in their models.

The estimation of the internal model parameters reveals a robust, positive, and statistically significant relationship between social capital and smart growth among the 28 European Union countries in 2015. This suggests that countries exhibiting higher levels of social capital also tended to demonstrate higher levels of smart growth during that period. The strong impact indicates that social capital, characterized by networks, shared norms, trust, and values, plays a critical role in fostering the components of smart growth, which include knowledge, innovation, and economic dynamism. In this context, social capital likely facilitates better cooperation, knowledge sharing, and efficient resource allocation, which are essential for advancing innovation-driven growth and enhancing overall economic performance. The findings underscore the importance of social cohesion and connectedness as key drivers for achieving strategic growth objectives, suggesting that policies aimed at enhancing social capital can potentially contribute significantly to smart growth outcomes in the EU. In addition to analyzing the relationships between latent variables, soft modeling provides a method for estimating the values of these variables, represented as weighted sums of indicators. This approach allows for the calculation of synthetic measurements for each latent variable in the model, facilitating a linear ordering of the analyzed objects—in this case, the countries being studied.

Using these synthetic measurements, the countries can be classified into typological groups based on similarities in social capital stock and levels of smart growth. This classification helps identify clusters of countries that exhibit comparable characteristics in terms of social cohesion and growth patterns. Such grouping not only highlights differences in development strategies and social infrastructure but also serves as a tool for policymakers to tailor interventions according to the specific needs and strengths of each group. The approach provides a nuanced understanding of how social capital interacts with smart growth across different contexts, offering insights into potential policy directions to foster inclusive, innovation-driven development throughout the European Union. In 2015, countries with very high stocks of social capital included Sweden, the Netherlands, Finland, Denmark, Austria, and Belgium. These nations demonstrated strong social networks, high levels of trust, and robust institutional frameworks that contributed significantly to social cohesion and collective well-being. A second group, with high stocks of social capital, consisted of Luxembourg, the United Kingdom, France, Germany, Slovenia, and Ireland. These countries exhibited substantial social capital but did not reach the very high levels observed in the leading group. Their social structures supported economic cooperation and policy implementation, although there may have been some variation in institutional quality and social engagement. The majority of the countries, thirteen in total, were classified within the medium to low social capital group. This included Estonia, Greece, Spain, Lithuania, Italy, Cyprus, Portugal, the Czech Republic, Croatia, Slovakia, Hungary, and Latvia. These countries faced more challenges in terms of social cohesion and institutional trust, which could have limited the impact of social capital on smart growth initiatives. The differences within this group indicated varying capacities for utilizing social networks and civic engagement in supporting development. Lastly, very low stocks of social capital were recorded in Malta, Bulgaria, and Romania. In these countries, weaker social networks, lower levels of trust, and institutional constraints likely hampered efforts to leverage social capital for economic growth and policy success. The significant gap in social capital between these countries and the leading group suggested a need for targeted interventions to strengthen social bonds and improve institutional quality to support sustainable

development.

3. CONCLUSION S

The article investigates the role of social capital in fostering smart growth across EU countries, distinguishing itself by focusing on knowledge, innovation, and smart growth rather than the more conventional link between social capital and economic growth. The research contributes to an emerging area of study, addressing a gap in the literature where the emphasis has typically been placed on economic outputs rather than on how social capital influences the broader, knowledge-driven aspects of growth. The study highlights the ongoing development of the smart growth concept and social capital theory, suggesting that further research will deepen our understanding of how social networks, institutional trust, and civic engagement drive innovation and knowledge-based development. The findings emphasize the strong and significant relationship between social capital and smart growth, with countries exhibiting higher levels of social capital also achieving greater progress in smart growth initiatives. Given the evolving nature of these concepts, new and significant academic contributions in the field are anticipated. These future works are expected to refine the mechanisms at play, enhancing the precision and detail of research in understanding the interconnectedness between social capital, innovation, and smart growth within the context of the EU. The study's results reveal a significant positive correlation between social capital and smart growth across EU countries, indicating that higher levels of social capital correspond to higher levels of smart growth. The research identifies cooperation among organizations as a key aspect of social capital that drives this relationship. For smart growth, the critical factors are the levels of knowledge and innovation, which are essential in fostering sustainable, knowledge-based economic development. These findings have practical implications, particularly for policymakers and governmental institutions. By recognizing the importance of social capital, governments can plan economic and innovation policies that encourage cooperation among organizations and institutions, thereby enhancing social networks and trust. Additionally, prioritizing initiatives that improve knowledge dissemination and stimulate innovation can effectively support smart growth. The insights from this study provide a strategic framework for shaping policies that integrate social capital development with the pursuit of smart growth objectives, ensuring that these aspects are mutually reinforcing in driving sustainable development in the EU.

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