

**ANALYSING THE EFFECT OF SOCIAL CAPITAL ON HUMAN DEVELOPMENT:
AN EMPIRICAL LITERATURE REVIEW**

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ABSTRACT

A literature survey of the effects of social capital on human development suggests that only the effects of social capital on selected human development dimensions such as income, education and health are investigated. No direct effect of social capital on human development is captured, underlining that the literature is relatively silent about these effects. Also, in our knowledge, this literature seems relatively old. It is more concentrated in the period between early 1990s and early 2000s. Based on a critical empirical literature survey, this paper summarises the effects of social capital on human development and outlines pathways to capture the direct effects of the former on the latter. The first pathway deals with the consideration of social capital as an ‘efficient cause’ of all human development dimensions. The second simply considers social capital as a capability. Finally, the third pathway suggests the integration of a social capital variable in a function where human development is a dependent variable. Using these approaches would be of good value added for the literature because it would enlarge the space of methodological approaches of analysing the effects of social capital on human development.

Keywords: Social capital, human development, capabilities.

1. INTRODUCTION

Current literature suggests that social capital is a positive and significant determinant of income, education and health, three core human development dimensions. With regards to income, at macro level, the economic theory makes us expect an economic payoff to greater social cohesion because of transaction costs reduction, collective action facilitation, capital disaccumulation prevention and allocative efficiency improvement. At micro level, social capital affects households’ income growth through its effects on information sharing, transaction costs reduction, more opportunities in the labour market or on the supply/demand sides. Other effects are related to the indirect effects of social capital on income via its effects on education and health for example. With regards to health, bonds between individuals within family and association relationships and bridges between individuals and state institutions act together to contribute to better health outcomes. This effect can be appreciated through the effect of social capital on inequality, income, access to better opportunities and information. Social capital favours consciousness and awareness raising for public health promotion goods. Considering education, theories explaining the linkage between social capital and education are rooted in the view that family income, parental education, relations of parents with their children and parents’ participation to school activities (to name only some aspects) are more likely to give opportunities to their children for better education.

If social capital is a good predictor of human development core dimensions, it is expected also to be a good predictor of human development which is the process of expanding people’s choices.

Meaning that expanding social capital is equivalent to expanding people's choices. A literature survey on the effects of social capital on human development suggests that only the effects of social capital on selected human development dimensions are investigated. No direct effect of social capital on human development is captured, underlining that the literature is relatively silent about the direct effects of social capital on human development. Capturing such effect would be a good value added to existing knowledge and would help reinforce social capital advocacy mostly in less cohesive societies in order to promote their human development. Also, in our knowledge, the literature on the social capital effects on human development selected dimensions seems relatively old. It is more concentrated in the period between early 1990s and early 2000s. Updating this literature is also an important value added to existing literature.

The central objective of this paper is to discuss the main findings on the effect of social capital on human development and propose pathways to directly capture these effects. To achieve this objective, section two is a brief literature review of the social capital concept. Section three is a critical empirical literature survey of the impact of social capital on human development. Section four proposes pathways to directly discuss the social capital effects on human development. Section five is conclusion.

2. BRIEF LITERATURE REVIEW OF THE SOCIAL CAPITAL CONCEPT

The concept of social capital has been attracting both academics and policy makers since the work of Putman, Leonardi and Nonetti (1993) who used social capital to explain differences in economic and governance performance in Northern and Southern Italy. However, this study benefited from earlier works. This is the case of Bourdieu (1986) and Coleman (1988) to name only these two.

Bourdieu defines social capital as “the aggregate of the current or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (Bourdieu 1986: 248). This definition stresses the importance of economic outcome in social capital formation. In Coleman (1988), social capital is a variety of different entities which have two elements in common: they consist of some aspects of social structures, and they facilitate certain actions of actors. Such consideration of social capital stresses benefit that associations allow to their members in terms of facilitations of different kinds. In this regard, belonging to a network or an association provides advantages that can be well appreciated by members. Benefits are also important in the definitions of social capital by Musai et al. (2011), Gonzalez et al. (2011), Portes (1998), Putman (1995a; 1995b), Brehm and Rahn (1997), Knoke (1999), Baker (1990) to consider only them.

Putman, Leonardi and Nanetti (1993) define social capital as a set of horizontal associations among people. These associations require trust that can be lent to individuals within the same network, facilitating collective actions. This definition is one of the most restrictive (narrowly defined) definitions of social capital because it only includes horizontal associations while more than horizontal and vertical associations matter. However, this definition is very important for economists because it considers the contribution of social capital to growth as an essential element in the definition of social capital. An implication to this approach would be the integration of social capital as a production factor, leading to a new growth model as in Bornschier (2000).

Serageldin (1996, 1998), Coleman (1988), Grootaert (1998), Serageldin and Grootaert (1997)

move from this narrow definition of social capital and consider it as a set of horizontal and vertical associations. Including vertical associations in the social capital concept is more representative of this concept because social capital necessarily goes beyond individuals' associations to incorporate macro-institutions. This move provides several adjustments in social capital components. In (Foa 2007 and Serageldin and Grootaert 1997), the movement leads to the distinction between formal and informal institutions or macro and micro level social capital. In the same vein, Collier (1998) distinguishes government social capital from civil social capital. Government social capital refers to governmental institutions that influence people's ability to cooperate for mutual benefit. Civil social capital refers to common values, norms, informal networks, associational memberships that affect the ability of individuals to work together to achieve common goals. The enlargement of social capital concept to vertical associations has an advantage that it includes several aspects ignored by the narrow concepts and it therefore more represents the reality behind the concept. In fact, social capital refers to a combination of the quality of interactions among neighbours, citizens (which is referred to a horizontal social capital), and governments (vertical social capital) characterized by strong norms of trust and mutuality as stressed in Serageldin and Grootaert (1997). According to Grootaert (1998), the concept of social capital includes not only horizontal and vertical associations, but also formalized institutions and structures like governments, political regimes, rule of law, court systems, civil and political liberties.

The demarcation from the narrow definition of social capital also led to the distinction between bonding and bridging social capital as in Harriss and De Renzio (1997), Paxton (1999, 2002) and Putnam (2000), Putnam and Goss (2002). Bonding social capital brings 'together people who are like one another in important respects (ethnicity, age, gender, social class, and so on)' (Putnam and Goss 2002: 11). As presented, bonding social capital is more related to horizontal social capital. Bridging social capital 'brings together people who are unlike one another' (Putnam and Goss 2002: 11). This distinction is close to Serageldin (1996: 196) who defines social capital as "a glue that holds societies together". This consideration of the idea of glue in social capital is key in that if one allows different vertical and horizontal associations without bringing them together with a kind of 'glue' these associations may operate in a permanent conflictual mane, leading to the collapse of society, meaning that if this glue fails to work as to maintain internal cohesion, societies will collapse and as a consequence, no economic growth will take place. The concept of glue is important to keep different associations together. It keeps together members of horizontal associations. It also keeps together members of vertical associations. Lastly, it keeps together different horizontal and vertical associations. Social capital creates an enabling environment for growth and sustainability and if combined with physical and human capital, leads to high growth rates as those experienced in the East Asian Miracle Serageldin (1996). On the contrary, many examples illustrate how in the absence of social capital, no prosperous economic activity can take place. Selected illustrations include Somalia civil war, Rwanda Genocide, Syria war... In such situations, resources are used to destroy manmade capital, human capital and natural capital (Collier et al. 2003).

Based on above-mentioned literature survey, social capital can refer to all vertical and horizontal, formal and informal associations based on common values, sharing the same objectives and contributing in various manners, directly and indirectly, to improve the wellbeing of individuals,

families or nations. When directly contributing to human wellbeing, social capital works as a factor of production just like natural, physical and human capital. Social capital indirectly contributes to wellbeing because it also works like technical progress to boost natural, physical and human capital's contribution to human wellbeing. In this way, social capital increases human development returns to other human development dimensions. Social capital is based on trust and generates trust and information that produce present and future, real and virtual profits of different kinds to both members and non-members.

As defined, social capital is centred on three essential components: a horizontal component; a vertical component; and a glue component. The horizontal component is mainly concerned with solidarity among individuals, households or groups. This can be referred to as the micro-level solidarity or the micro-level social capital. The vertical component is concerned with solidarity from public institutions towards individuals, households or groups and vice-versa. This can be referred to as the macro-level solidarity or the macro-level social capital. For the two components to deliver their optimal effects, the glue component has to work. The glue component holds together all social capital components. It also holds together all members within each component.

As discussed, social capital contributes to economic and social development. It is regarded as a vital ingredient in economic development. It leads to several benefits to members and non-members. If social capital is a key determinant of economic and social development, it is expected to have an effect on human development. What does the literature say about this effect? Section two intends to come out with an answer to this question.

3. THE EFFECTS OF SOCIAL CAPITAL ON HUMAN DEVELOPMENT

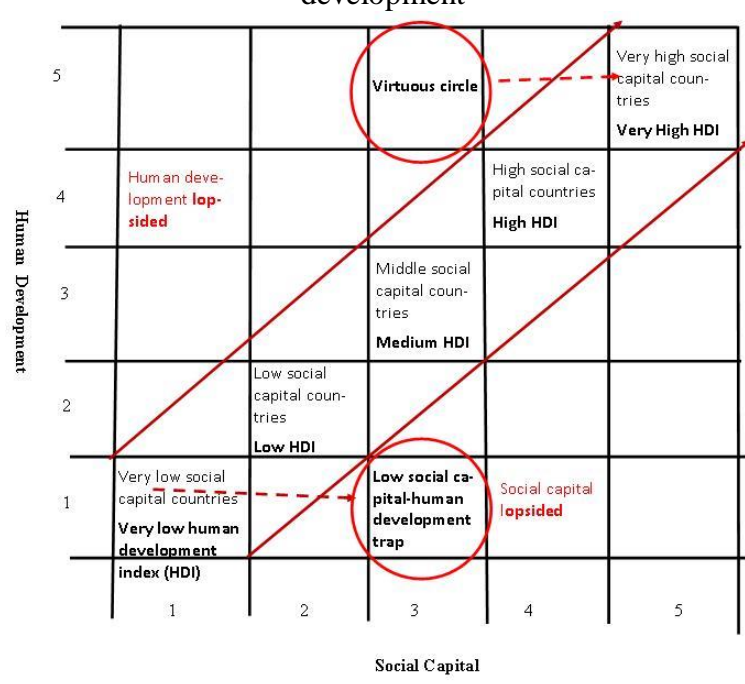
3.1 Theoretical Expectations

Theoretically, it is expected that lower levels of social capital are associated with lower levels of human development. In this case, social capital attainments are lower than the minimum required (insufficient social capital) to translate to economic growth and capabilities creation. Such levels of social capital fail to boost educational attainment and quality health. Because social capital is weak, economic activities and other non-economic dimensions of human development cannot prosper, leading to lower human development which in turn favours social capital deterioration. This would be the case when socio-political instabilities reinforce economic outcomes deterioration together with diminishing rights. The situation can be referred to as the vicious circle between social capital and human development or low social capital - human development trap. Higher levels of social capital are very likely to be associated with higher levels of human development because social capital attainments are higher than the minimum required to translate to economic growth and boost income, education and health. In fact, because social capital is strong, economic activities prosper, together with non-economic dimensions of human development. The situation leads to higher human development achievement which in turn favours social capital accumulation. This would be the virtuous circle between social capital and human development.

Beside these two extremes, two exceptions can be mentioned. Firstly, lower levels of social capital can be associated with higher level of human development. This could be when a rights-limiting

regime concentrates on economic outcomes to improve the living conditions of populations. In this condition, people benefit from high income levels. High income contributes to quality education and health. However, several rights remain very limited. To borrow from Ranis et al. (2009), this situation could be human development lopsided. Secondly, higher levels of social capital can be associated with lower levels of human development. Deep economic crisis, combined with severe drought which leads to gigantic famines may result in a low human development level while the social capital stock of the country remains high. This situation can be viewed as social capital lopsided.

Figure 1: Theoretical expectations of the relationship between social capital and human development



Source: composed by the author

Globally speaking, if one puts aside human development lopsided and social capital lopsided situations, it is expected that when social capital increases, human development increases and when social capital decreases, human development decreases too, meaning that there is positive relationship between social capital and human development.

3.2 Empirical investigation

The literature is relatively silent about the direct effects of social capital on human development. Existing works on this field are mainly related to the effect of social capital on human development selected dimensions. What follows is a review of the literature on the effects of social capital on human development core dimensions: income, health and education.

3.1.1 The Effects of Social Capital on Income

The literature suggests that social capital can affect human development via its effects on growth

at macro level. In fact, the economic theory makes us expect an economic payoff to greater social cohesion because of several reasons. In Putman (1993) and Foa (2010), these reasons can be grouped in four components: i) transaction costs reduction, ii) collective action facilitation, iii) capital disaccumulation prevention; and iv) allocative efficiency improvement. At micro level, social capital mainly affects households' income.

At macro level

Social capital enhances growth via transaction costs reduction. These costs include the cost of making economic exchanges like information gathering, communication, and contract enforcement. In violent economic environment, transaction costs are higher in both formal and informal institutions. Costs of policing, crime prevention and other private security services are important in a society where social capital suffers important damages. These costs are reduced to their minima in a non-violent environment. Cost reductions is equivalent to better economic outcomes *ceteris paribus*.

In the field of public choice economics, by facilitating collective action or cooperation among individuals, social capital pursues shared objectives, and specifically the demand for and provision of public goods. Poor social capital limits economic growth via capital disaccumulation because sustained economic growth goes with capital accumulation. As discussed in Putman (1993: 3), networks of civic engagement raise generalized reciprocity and favour the creation of "favour bank": I do this for you now so that down the road, you or somebody else will return the favour to me. They facilitate coordination and communication. They can also capitalize past success in collaboration, using it as templates for future collaboration.

Poor social capital reduces allocative efficiency which is referred to a condition under which resources are assigned so as to maximise total economic welfare. This can be the result of ethnic, religious or caste groups' violence that limits cooperation among these groups. Based on the above rationale, it is expected that economic growth would be positively correlated with social capital, meaning that if social capital increases, economic output will increase and if social capital decreases, economic output will decrease.

Evidence that social capital positively affects growth is confirmed by Putman (1993), the World Bank (1993), Knack and Keefer (1997), Bornschier (2000), Routledge and Amsberg (2002), Foa (2010), Acket et al. (2011), Musai and Fakhr (2011), Van Rijn, Bulte and Adekunle (2012) to name only them.

Putman (1993) explains how northern Italy has successfully developed its economy because of a strong tradition of civic engagement, newspaper readership, membership in choral societies and literary circles, soccer clubs and so on while southern Italy, an 'uncivic' region, with meagre social and cultural associations - where public affairs is somebody else business, where laws are made to be broken, and fear is nourished by each other behaviour, making populations unhappier - failed to develop. According to Putman, "Communities did not become civic simply because they were rich ... They have become rich because they were civic. In this sense, social capital is a precondition for economic development" (Putman 1993: 3).

The World Bank (1993) uses social capital as a fourth category of capital in a production function besides physical, human and natural capital. After accounting for physical, natural and human capital, a "residual" is obtained that estimates the contribution of social capital. In the case of the East Asian Miracle, accounting models attribute 17 to 36 percent of the differences observed in growth performance between East Asia and other parts of the world to social capital. Knack and Keefer (1997) explore the relationship between interpersonal trust, norms of civic cooperation and economic performance. Using a sample of 29 market economies of the World Values Surveys, their findings suggest that trust and civic cooperation exhibit a strong and significant relationship to growth. Bornschier (2000) uses an extended Cobb-Douglas function to predict modern economic growth with a social capital index. Results suggest that social capital is a statistically significant predictor of economic growth over the period 1980-1998 for 33 industrialized countries. The effect of social capital on growth is higher in highly developed countries than in newly industrialized countries. This corroborates the idea of the possibility of existence of a social capital virtuous circle as discussed above. Musai and Fakhr (2011) uses a Cobb-Douglas function where production (GDP) is subject to labour force, physical capital and social capital stock. The elasticity of GDP to social capital is estimated at 0.28. This elasticity is statistically significant, underlining a positive effect of social capital on economic growth. Foa (2010) found that GDP per capita and social cohesion are significantly and positively related and that social cohesion has a strong and significant impact on economic growth in samples of 45 and 65 countries. In Van Rijn, Bulte and Adekunle (2012), there is a large and significant association between the arithmetic average of the indices of bonding social capital, bridging social capital and cognitive (perception) social capital and the adoption of agricultural innovation by African farmers.

At micro level

Theoretically, social capital affects households' income growth through its effects on information sharing, transaction costs reduction, more opportunities in the labour market or on the supply/demand sides. Other effects are related to the indirect effects of social capital on income via its effects on education and health for example. Selected empirical evidences can be gathered from Boxman et al. (1991), Narayan and Pritchett (1997), Muluccio, Haddad and May (1999), Bjørnskov (2002), Feuer (2004), Tiepoh and Reimer (2004), Brisson and Usher (2005), Zoltán and Kopasz (2008) and Jin and Yanjie (2018) to consider only some.

Boxman et al. (1991) use a multivariate analysis of a 1986/1987 sample of 1359 top managers of larger companies in the Netherlands to discuss the relationship between social and human capital in the income attainment process of managers. Their findings suggest that top managers find their jobs largely through informal channels and more so if they possess more social capital. Social capital (external work contacts, memberships) has a substantial independent influence on income and position level (number of subordinates). Human and social capital can act as substitutes for each other. Human and social capital interact in the income attainment process. Social capital helps at any level of human capital, but human capital does not make a difference at the highest levels of social capital. Narayan and Pritchett (1997) show that a village's social capital has an effect on households' income in rural Tanzania. They assess social capital by households' membership in groups, characteristics of groups where households are members, individuals' values and attitudes (their definition and expressed level of trust in various groups) as well as their perception on social

cohesion. In this study, church groups are the most important, followed by burial societies and muslim groups. Ordinary least squares estimations show that social capital is capital because there is a strong and positive impact of social capital on households' incomes in the village. The study also underlines that social capital is social in that the social capital of households interviewed affects the income of other households not participating to associational life. Using a panel data set on income dynamics in the South Africa's largest province, the Kwazulu-Natal, Muluccio, Haddad and May (1999) estimate per capita expenditure functions, attention being focused on a social capital indicator that includes three components: density (the number of group memberships), gender heterogeneity (the percentage of most important groups that are mixed gender) and performance (the average reported performance of the most important group measured using a perception approach). Findings suggest a positive and significant impact of household-level social capital. The control for fixed effects suggests that social capital had no impact on per capita expenditure in 1993 while it had a positive and significant effect in 1998. The authors explain the 1993 findings by important restrictions of apartheid on the local population. The social capital household-level effect is significant but to a large extent smaller than the education effect. Bjørnskov (2002) estimates returns to social capital for individual income in Denmark. Six components of social capital are considered: generalized trust; neighbour trust; the number of helpers (the sum of entities that an individual believes he can count on for help in a crisis situation); Putnam's instrument (the sum of how many different types of voluntary organizations that a given individual is a member of) and civic engagement. Findings suggest that except confidence in institutions, all social capital proxies are positive and significant for individual income. Putman's instrument seems to have the higher effect, followed by civic engagement and number of helpers. Using household data collected in two villages in semi-rural Cambodia, Feuer (2004) shows that market interactions are an embedded aspect of everyday social relations in the village and enhance the ability of social capital to meaningfully contribute to income. Social market interactions contribute directly to livelihood through improvements and dedication to personal business and indirectly through an enhancement of social capital that capitalizes on group efficiency. More specifically, ordinary least squares regression underlines that general trust, social interaction and groups and networks are positively correlated with wealth. The study also reveals that market associations and networks and market depths (how regularly market interactions occur and in what context and how these interactions are perceived by the villagers) directly contribute to the ability of a household to increase its wealth. In the case of rural Canada, Geepu et al. (2004) find a statistically significant relationship between household income and social capital. Four components of social capital are used: market, bureaucratic, associative, and communal-based. The individual regression coefficients on the four social capital variables are all significant and positive, with only one exception. That on the bureaucratic social capital variable is negative. Increasing the level of household involvement in any type of social relations has an important income effect. These effects are likely to be even more economically significant and pronounced for households that are in lower income categories. In the case of bureaucratic-based social capital use, results suggest that raising household involvement in bureaucratic relations has a substantial income-reducing effect, and decreasing household involvement has a significant income-enhancing effect. Brisson and Usher (2005) examine how neighbourhood characteristics and resident participation affect bonding social capital in low-income neighbourhoods based on the 2000 US census. Findings demonstrate that participation, homeownership, and neighbourhood

stability are associated with bonding social capital. Additionally, significant interactions exist between individual characteristics and neighbourhood income on bonding social capital. Zoltán and Kopasz (2008) seek whether social capital has an effect on individual income, whether weak ties (remote friends, acquaintances) have a stronger effect on income than strong ties (relatives, close friends) and, whether the income effect of social connections is more pronounced in the post-socialist countries than in countries with a different past. Based on data for 26 European countries, estimations reveal a significant and positive association between social capital and wage income on the pooled sample and on the national samples of 19 countries. The income effect of social capital is found to be more pronounced in the post-socialist countries than in other EU member States. No earnings effect of social capital is found in Denmark, Finland, Iceland, Netherlands, and Sweden. At the other extreme, in France and Spain, all social capital proxies seem to have an effect on earnings. Jin and Yanjie (2018) consider three groups of job seekers in terms of channels used to search for jobs: the formal channel involving only official procedures to obtain a job, the informal channel using only social contacts to obtain a job, and the joint channel leveraging both social contacts and official procedures. They find that joint channel users, due to their relatively higher level of social capital, not only make more job search attempts but also obtain higher income than formal channel users.

In fine, empirical evidences suggest that social capital has a positive and significant effect on income at both individual and household levels. This finding underlines how important social capital is in addressing poverty and inequality. Policies decisions to address poverty and inequality (mostly by the World Bank and the IMF during the 80s) have ignored the important place of social capital. This can explain why in many cases, there had been limited results, mostly in the case of Structural Adjustment Programmes. Addressing poverty and inequality should integrate social capital aspects for better outcomes. In this regard, it would also be interesting to integrate social capital dimensions in multidimensional poverty analysis.

3.2.2 The Effects of Social Capital on Health

The theoretical basis of the relationship between social capital and health is rooted in the view that bonds between individuals within family and association relationships and bridges between individuals and state institutions act together to contribute to better health outcomes. This impact can be appreciated through the effect of social capital on inequality, income, access to better opportunities and information. Both health and non-health but health impacting variables, and support of individuals in case of illness are also some channels through which social capital can affect health. Social capital favours consciousness and awareness raising for public health promotion goods. The final effect of combined actions and interrelations between individuals supports improvement in people's health status.

As mentioned by Lomas (1998), public health practitioners' attention is more oriented towards individuals (immunization, life-style change and many other aspects) than to social system's influence on health. As a consequence, large amounts have been spent at the individual level while the social level does not benefit from any investment, explaining why some policies fail to positively impact the quality of health even after huge amounts of money are spent. Such policies ignore that "the way we organize our society, the extent to which we encourage interaction among

the citizenry and the degree to which we trust and associate with each other in caring communities is probably the most important determinant of our health” (Lomas 1998: 1181). For this reason, looking inside individuals’ bodies and brains is not sufficient. It is also important to look inside individuals’ communities, their networks, their workplaces, their families. Campbell (2005) identifies two challenges for health promoters: i) developing policies and interventions that promote social and community context which enable and support health enhancing behaviours and, ii) developing measurable indicators of what constitutes a health-enabling community. These challenges are based on the hypothesis that levels of health might be better in communities characterized by high level of social capital. Better health outcomes can be obtained through better economic outcomes (Putman 1993 in the case of Italy; Narayan and Pritchett 1997 in the case of Tanzania to name few of them). However, as pointed out by Lomas (1998), these outcomes are improved by social capital. Wilkinson (1996) studies the link between health and comparative income distribution between countries. His findings suggest that it is not the richest countries that have the best health, but countries having the smallest income differences (meaning better social capital). Countries with lower differences in income are more socially cohesive, the public sector serving as a source of supportive and health-promoting social networks. This finding highlights the two elements of social capital mentioned by Serageldin and Grootaert (1997): both micro institutions and macro institutions. Wilkinson’s results stress the importance of macro institutions which help local associations to prosper and grow, leading to better health outcomes. In egalitarian societies, macro-institutions play a key role in revenue distribution. Kawachi et al. (1997) study the correlation between mortality, social capital and income inequality in the US. Findings suggest a strong inverse relationship between degree of income inequality and per capita group membership. Income inequality is also strongly associated with lack of social trust. States with high levels of mistrust have higher rates of mortality. According to Kawachi et al. (1997), a 10% increase in overall trust across US citizens would lead to a decrease of 0.6 deaths per thousand per year. One unit increase in group membership would lead to a decrease of 0.83 deaths per thousand people per year. They also outline that income inequality has a large indirect effect on overall mortality through social capital. Yan Li and Shufang Wu (2010) analyse social networks and health among Chinese rural-urban migrants. Their findings suggest that poor health quality is associated with limited social networks among rural-urban migrants. According to the authors, anxiety, unhappiness, sleep disturbance, depression and nervousness among rural-urban migrants in China are most experienced by migrants living in limited social networks. Fiorillo and Sabatini (2011) present an empirical assessment of the causal relationship between social capital (measured by the frequency of meetings with friends) and health in Italy. They find that social capital is strongly and positively correlated with perceived health. Yiengprugsawan et al. (2011) use a cognitive (perception) and structural (what people do for social interaction) measure of social capital to investigate its impact on health. Based on self-assessed health and psychological health among adults in a national cohort of Open University students in Thailand, findings suggest that poor self-assessed health is positively associated with low social trust and low social support. Poor psychological health is also associated with low social trust and low social support. Females, elderly, unpartnered, low income, and urban residents are associated with poor health. Gregsons et al. (2011) use prospective data from eastern Zimbabwe and finds that people with higher levels of community group participation have lower new HIV infections because of adopted safer behaviours. Women in community groups present lower HIV incidence and more extensive

behaviour change. They suggest support for women's community groups as an effective HIV prevention strategy. Rocco and Suhrcke (2012) analyse the causal impact of social capital in 14 European countries. They use a regression model where health is a dependent variable, and social capital the independent variable. Findings highlight a strong causal relationship between social capital and health. The study reveals that individual social capital is a significant true determinant of individual health if individuals live in regions with high community social capital. Trusting others has a positive health effect if trust is reciprocal. In Acket et al. (2011), in the case of Europe, countries with higher levels of social cohesion correlate with lower levels of mortality due to car accidents and lower rates of suicides and infant mortality.

To conclude, empirical evidence suggests that health outcomes are positively correlated with social capital. Social capital is a good predictor of health quality. In this way, social capital positively affects human development. Policies aiming at improving the health status can be grounded in social capital development.

3.2.3 The Effects of Social Capital on Education

Theories explaining the linkage between social capital and education are rooted in the view that family income, parental education, relations of parents with their children and parents' participation to school activities (to name only some aspects) are more likely to give opportunities to their children for better education. In this way, social capital is a good predictor of education attainment. An increase in stakeholders' participation to education generates better education outcomes, reaching disadvantaged groups and mobilizing funds. Expanding the depth and the scope of community's participation is essential. This taught is found in Coleman (1988), Condy (1998), Colletta and Perkins (1995), Smith, Beaulieu and Israel (1992), Sandefur, Meier and Hernandez (1999) among many others.

In Coleman (1988), both family social capital and external or community social capital are positively correlated with education outcomes. As regard family social capital, Coleman's work suggests that the two-parent household is consistently related to positive outcomes and lower violence against youth. This work also suggests that the quality of parent-child relations, adult's interest in their child, parent's monitoring of child and extended family exchange and support are all positively associated with better education outcomes of children. According to Coleman, community social capital increases access to information, to material and financial resources that support better educational outcomes for children. Families rooted in embedded social support networks receive assistance in managing their daily life. They have better access to information and material resources. This social support to parents has positive effects on children education outcomes and therefore guarantees less incentive to gang membership, less delinquent acts, lower drop out of school rate, better academic performance and gainful employment. In a community with high civic engagement, there is a higher level of parents involvement in school related activities and lower misconduct of children. Teachers are also more efficient in their duties. This idea is corroborated by Condy (1998) who suggests that teachers' engagement in community projects improve teaching methods and techniques. Condy underlines that communities involvement in school management at teachers and students levels is important for better school outcomes in Ghana. In Coleman (1988), parents who feel safe in their living environment are more

likely to attain a higher quality of life because of enhanced economic outcome. This situation positively affects children education outcomes. In such an environment, delinquent acts by young people are also lower, reinforcing the positive effects on education outcomes. The degree of religiosity involvement of parents is another important factor determining children education outcomes. The degree of religiosity can be approached by parents' regular church attendance. Children attendance at a catholic school is found to have a significant and strong negative effect on dropping out of school (Coleman 1988). In Colletta and Perkins (1995), increasing stakeholders' participation is beneficial to education in terms of higher quality, better coverage for remote and disadvantaged groups, resources mobilization and capacity building. Stakeholders include government officials, education professionals, local communities, and private sector. At any benefiting level, local communities can play a key role. Selected illustrations include participation in school construction, raise of borrower commitment, educational data provision, programmes orientation to remote and disadvantaged groups, improved parents participation to school activities, better teacher discipline, educational materials provision, and so on. Smith, Beaulieu and Israel (1992) assess whether the drop-out behaviour of public high school students in the Southern Florida is affected by the strength of social capital in the community. Findings suggest that differences in community social capital can explain differences in individual propensity to dropout. The study suggests that high level of community social capital can supplement low level of family social capital and high level of family social capital can compensate for low level of community social capital. But if both are low, there is an increase of dropout and where both are high there is a virtual assurance that students will graduate. This finding corroborates the existence of both vicious and virtuous circle between social capital and human development as stressed in theoretical expectations of the relationship between the two concepts. Beaulieu and Israel (1992) only underline these circles in the case of health, one key dimension of human development. Using a longitudinal survey, Sandefur, Meier and Hernandez (1999) study the effect of social capital in making educational transitions in the United States. Their results suggest that families use their income to invest in their children social capital in the same way they invest in their human capital and that social capital affects educational attainment through the quality of social relationships and assistance.

Wrapping up, empirical evidences suggest that social capital is a positive and significant determinant of educational outcomes. Meaning that investing in social capital leads to better education and hence to improvement in human development. As discussed above, the relationship between social capital and human development is mainly investigated using human development selected dimensions. It would be of great interest to move from this indirect approach to a direct investigation of the effects of social capital on human development using a human development composite indicator. In section below, we discuss selected pathways that may be helpful to this end.

4. PATHWAYS IN ANALYSING THE EFFECTS OF SOCIAL CAPITAL ON HUMAN DEVELOPMENT

The above literature survey underlines the positive linkages between social capital and human development. This can be explained in that social capital is at the same time a capability and an instrument of capability. As an instrument of capabilities, social capital is at a first instance an

“efficient cause” of other capitals and, after a given level, social capital works like other capitals and can be considered as a production factor which can be substituted to other factors. As a capability, social capital is an end to human actions.

4.1 Social Capital is an “Efficient Cause” of Other Capitals

Social capital is an efficient cause of other capitals in the sense of Aristotle. It means that social capital is the primary source of change in other capitals. In this sense, social capital allows changes in socio-economic factors explaining economic development and, in this sense, it causes changes in all human development dimensions. For example, without social capital, achievement can neither take place in education and health, nor in income. Higher degradations of social capital impede activities to develop. Rwanda genocide and the widespread terror worldwide can be used as illustrations.

In Rwanda in the early 1990s, mix marriage between Hutu and Tutsi was common. Children used to go to the same school. Hutu and Tutsi used to go to the same churches. They used to organise their revolving saving schemes and agricultural associations on a mixed-based membership supervised by relatively well-organized vertical associations. This situation progressively shifted to a politicized social capital that led to increased bonding social capital which in turn contributed to the genocide where “in some instances, neighbours killed neighbours, fathers killed their own wives and children, and friends turned against on each other, all in the name of Tutsi elimination” (Des Forges 1999, cited by Pinchotti and Verwimp 2007: 9). In such a situation, no economic activity can take place, some production factors are used to destroy other production factors. For instance, machetes were used to kill people and people were used to burn houses... Rwanda is not a single illustration of social capital as a precondition of any development activity. Today, new evidences can be gathered all over the world as illustrated by the up-surged terrorist attacks. Boko Haram (in Nigeria, Cameroon, Chad, Niger, Benin), ISIL (Syria, Iraq, Egypt, Turkey and Libanon), Taliban (in Afganistan), Fulani militants (in in Nigeria, Central African Republic), and Al-Shabab (Somalia, Kenya, Ethiopia and Djibouti) create pitiful living conditions where they are active. Their actions are illustrative that a minimum social capital level is necessary for human beings to prosper. After a given level of social capital destruction, there is no possibility for an economic activity to take place. Social capital is a precondition of all human productive activities which contribute to improved human development. Better social capital prepares the ground for other capitals to prosper, leading to development. For this reason, Putman (1993: 3) concludes in the case of Italy that “Communities did not become civic simply because they were rich ... They have become rich because they were civic. The social capital embodied in norms and networks of civic engagement seems to be a precondition for economic development”.

4.2 Considering Social Capital as a Capability

According to Sen (1985; 1988; 1999; 2005) a person’s capability refers to what he is actually doing (functionings) and what he is substantively free to do, his real opportunities. Capabilities reflect alternative combinations of functionings that are feasible for an individual (Sen 1999: 75). They include both ‘achieved functionings’ and achievable but ‘non achieved functionings’ because of individual’s choice to do so. In other words, capabilities refer to what people are able to do or to be. In this regard, capabilities are equivalent to the opportunity people have to achieve various

lifestyles and, as a result, the ability to live a good life (Anand et al. 2005: 11). Capabilities are about opportunities for an individual to exercise his freedom to attain different kinds of alternative lives between which a person can choose. They are used to refer to substantive or opportunity freedoms which represent people's ability to achieve something. According to Nussbaum, the capabilities are the answer to the question, What is the person able to do and to be? They are equivalent to Sen's substantial freedoms, what Nussbaum calls "combined capabilities" or the "totality of the opportunities a person has for choice and action in his specific political, social, and economic situation (Nussbaum 2011: 21).

Havin this in mind, if one considers the Legatum Prosperity Index, variables related to social capital included in this index comprise among others: ability to express political opinion without fear; assault; civil war; demographic instability; group grievances; property stolen; refugees and internally displaced persons; safe walking alone at night; state-sponsored political violence. Feeling safe while walking alone at night is a capability. Expressing political opinion without fear is another capability. The capability set of an individual who feels safe walking alone at night is larger than that of another person who cannot walk alone safely at night. The former's capability set is larger than the latter's, and, ceteris paribus, the former's functioning set is larger. If one considers Nussbaum's fundamental capabilities list (Nussbaum 2011), interaction with other human beings and species is a vital capability. This capability is related to social capital. Not interacting with other human being is what we may call an 'anti-capability'. The lack of a vital capability endangers life and, as a result, it is 'anti-human development'. Some other social capital dimension of the Legatum Institute includes donations; helping strangers; formal volunteering; marital status; perception of social support; religious attendance; trust in others. To also illustrate with another example, an individual who cannot trust in others faces a reduced capability set which in turn negatively affects his functioning set because he always fears his neighbours. The same considerations hold for the personal liberties dimension. Considering the above, we can conclude that each social capital dimension (or variable) corresponds to a capability. Expanding social capital is therefore equivalent to expanding people's choices, which is equivalent to human development. An implication is that studies with the main scope of measuring populations' capabilities should consider the social dimensions of individuals' capabilities. In this regard, people's interrelations which are key important sources of capabilities should not be ignored as in Greco et al. (2015).

4.3 Estimating the social capital effect on human development in a function

Another approach of considering the impact of social capital on human development would be to use a function where social capital is an independent variable and human development the dependent variable and concentrate the analysis on the coefficient of social capital variable. In fact, if social capital is considered as an investment in human development, an increase in social capital must ultimately lead to higher human development achievements. Let us adopt, for illustration, a two variable model which hypothesises that human development is a function of social capital.

$$HDI_{it} = f(SCI_{it}) \quad (1)$$

where HDI_{it} is the Human Development Index of country i at period t and SCI_{it} is the social capital index of country i at period t .

The linear specification of the model takes the following form:

$$HDI_{it} = \alpha_i + \beta_{it}SCI_{it} + \varepsilon_{it} \quad (2)$$

Where α_i is the individual effect of cross-section i (the cross-section specific fixed effect), and β_{it} is the regression coefficient of i at period t . ε_{it} is the term error of cross-section i at t .

The most recurrent human development measure is the HDI of the Human Development Report Office of UNDP. These data are available on an annual basis. The remaining problem is to define a social capital index (SCI). SCIs are still to be widely developed. However, spare initiatives exist. This is the case of the Indices of Social Development (ISD)¹. ISD produces indices of social dimensions of the following: civic activism, intergroup cohesion, clubs and associations, interpersonal safety and trust, gender equality and minority inclusion. These dimensions can be merged in a single index using specific assumptions. One of these assumptions may be related to the functional form of the index. The main issue of social capital related indices is that they are not produced at an annual basis. It would be important to advocate on the importance of producing social capital data on an annual basis. The production of such data would lie on the definition of approved methodologies because several dimensions of social capital are related to perception.

5. CONCLUSION

This paper discussed the concept of social capital and its effects on human development using available literature. The discussion ended with a proposed definition to this concept. Empirical literature review suggest that social capital positively affects human development core dimensions such as income, health and education. The paper ended with pathways to directly analyse the social capital effects on human development.

The paper highlights that laying emphasis on social capital in policies aiming at improving human development would lead to better outcomes. Improving the health status of populations should no longer be limited to concentrating on individuals and ignoring individuals' interrelationships. Improving individuals' educational attainment should not ignore the quality of people interrelationships (parents and children, parents and teachers, teachers among themselves, parents among themselves and so on). Policies oriented towards improvement of individuals and households' incomes should not be limited to natural, physical and human capitals only. They should be expanded to social capital.

The paper suggests pathways for the evaluation of the impact of social capital on human development. These include the consideration of social capital as an instrument of capabilities and as capability. As an instrument of capabilities, social capital supports the development of other capabilities. As a capability, social capital is an end to human being. For the above-mentioned reasons, important investments in building social capital are necessary in order to support sustained wellbeing. In order to measure the effect of such investment, data collection on social capital dimensions would be a key step.

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¹ (URL: <http://www.IndSocDev.org/>)

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