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SOCIAL CAPITAL

AN ECLECTIC LITERATURE SURVEY

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***Social capital** emerges from an intangible but real network of human relationships, and is not contained within, or fully expressed, at an individual level. With the emergence of the internet and social media, almost all business leaders and modern managers bank on the power of networks to create value and add competitive advantages to their businesses. Besides social relations, intra- and inter-organisational relationships are a valuable resource for organisational success.*

While the term social capital has been in use in literature for around a century now, its exact definition, the role it plays in creating appropriable competitive advantage for firms and business groups, its measurement, and the means to accumulate and harness it are yet to be comprehensively understood. This paper is the first in a three-part series that seeks to address these issues, specifically in the context of one of the oldest, and highly revered business conglomerates in the world – the Tata group. The current analysis is restricted only to presenting a broad survey of the literature covering the many definitions and measurement approaches applied to social capital, with an attempt at the end to narrow the concept down towards producing a practical definition, and measurement methodology for the Tata group.

Across Disciplines

There are various perspectives – philosophical, sociological, economic and financial / business or organisational – in literature on the concept of social capital. Adler and Kwon (2002) see social capital as one of the primordial features of a human being's social life i.e. social interactions, relations, ties, and / or connections. Most literature views social relationships - based on encompassing elements such as trust, norms, reciprocity and cooperation - as a resource in a social structure or organisation that produces an advantage for those pursuing it. Advocates of social capital believe the concept can help understand and resolve issues associated with any contemporary social / economic / business organisation - information asymmetry, governance, transaction costs, defecting contractual obligations, distrust, non-cooperation, etc. Some of the advantages they refer to are information sharing, influence, solidarity, and coordinated action. Social capital also influences market relations and improves the ability of the market to function efficiently. On the other hand, critics of this approach suggest social capital has a negative relationship with development, and also point to the limitations of the concept.

Measurement Approaches

It is difficult to improve something that hasn't been defined properly, let alone be measured. And, it is near impossible to provide a census of a society's stock of social capital as several challenges remain in translating social capital's many theoretical and qualitative components into quantifiable constructs. This has resulted in the development of a wide range of tools for its measurement at the national, sub-national / community, and firm levels. Sociological/economic researchers largely use the triad of Trust, Norm, and Group membership. Business researchers, on the other hand, have built slightly different dimension constructs to capture the concept and its usefulness in a business context, while adding a few qualifiers for it to really count as 'capital'.

Way Forward

If there is anything that can be asserted about the optimum exercise to estimate social capital in a large conglomerate without fear of reasonable objection, then, it is that the measurement technique adopted in the present exercise must have a survey at its core. While consensus on the need for a survey is more likely, it would be difficult to address the issues around whom to survey and specifically around what questions to ask. Answers to this need must stem from the purpose of the entire exercise - which includes defining and measuring the value of social capital as an emergent feature within the Tata conglomerate, and as a productive resource both in individual companies as well as in the network of companies and further, in the broader stakeholder circle of the Tata group.

While a definition or exercise in measurement of social capital from a corporate perspective in the Indian-origin-MNC context may be hard to find, attempts have been made in existing literature to explore the broader socio-economic implications of the concept in the Indian setting. Earlier studies (for e.g. Granovetter, 2010) have found evidence of community-level ties affecting business decisions and inter-firm relationships among various business communities.

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SOCIAL CAPITAL – AN ECLECTIC LITERATURE SURVEY

1. Introduction

Conventional economics identifies *capital* as one of the four factors of production – the only one that is man-made and can be accumulated and replenished. For long, the definition has almost exclusively meant physical capital – plant and machinery being its most frequently cited examples. Over time, however, it is acknowledged that the man-made factor of production – or source of competitive advantage – almost necessarily extends to several other dimensions and concepts like 'environmental capital', 'knowledge capital', and 'human capital' and has found acceptance in economic and management parlance – in both academic and practitioner settings.

There is a dimension of capital that is essentially human in nature and yet is not internalised in any individual human entity. It is an intangible emergent factor that essentially belongs to *networks* of human relationships – *social capital*. While the term has been in usage in scholarly literature for over a hundred years, its clear definition and measurement, as well as its features and role in creating competitive advantage for firms and business groups, are yet to be comprehensively and systematically detailed. And yet, as the emergence of internet and social media underline, like never before, the power of networks in both creating value and imparting competitive advantage to businesses, interest in the concept has exploded around the world. No business in any industry or geography today is safe without being engaged in these networks of relationships. Most winners are noted as increasingly leveraging its power successfully either online or in the physical world. The tool-box of the modern manager or business leader is considered deficient or inadequate if it does not have these instrumentalities of social engineering. This article attempts a review of the literature spanning several disciplines to arrive at a broad definition of the concept, as well as an overview of the ways to measure it.

The concept of social capital, as mentioned earlier, as an element of sociological and intra-and inter-organisational relationships has been around for almost a century. The fact that social relationships of organisations – including businesses – and their members bring a valuable resource to organisational success beyond the material end effort contributions is widely acknowledged. However, the contours of this concept appear to be fuzzy as is the exact manner in which it contributes to production and effectiveness, and, equally importantly, how it can be accumulated and harnessed. And yet these are important questions to ponder for any serious enterprise, particularly the larger ones, for social capital is often not a matter of choice but as inevitable as one's shadow or reputation and its impact may not always be wholly and exclusively salutary.

It is in an attempt to better understand these issues, particularly from the point of view of the Tata group that the present enquiry into social capital is being undertaken. The questions to be addressed here would include the following:

- What constitutes social capital;
- How can it be measured;
- How does it contribute to productive endeavour;
- How dependent is its nature and effectiveness on its socio-political setting; in other words, are the nature and mechanisms of social capital universal or should they be understood within the context of the location and zone of operation of the organisation in question? Are there particular 'Indian' as well as global features that need to be explored for an Indian-origin MNC conglomerate like the Tata group?
- How does social capital relate to other features like brand and goodwill? How different are its functionings from these somewhat similar and overlapping notions?
- Finally, how can the Tata group define, measure, analyse and predict its social capital and impact towards its business and social objectives?

The agenda listed above is an ambitious one, particularly given the fact that such an exercise would be among the first scientific attempts at understanding the concept from a user point-of-view. While sociologists and economists have grappled with the concept for decades, the mature of the debate has, for a long time been rather abstract and the locus and perspective being that of nations and large sub-national communities. Business literature has also actively engaged in understanding social capital in the last two decades; but for the large part, the enquiry there has also remained mostly academic. In some sense, the attempt being made here is a pioneering step to use the concept more precisely and in a 'usable' manner by one of the oldest, and highly revered business conglomerates in the world.

The journey is doubtlessly a challenging one and the present paper is but only the first of a trilogy that is designed to take us to the destination. Given the substantial discussion existing in literature – cutting across several academic disciplines – and the need for a functional, usable definition and measurement methodology for a 'here and now' user as the end goal, the exercise must necessarily comprise an expedition from the broad to the precise, from the dispersed to the organised, and from the abstract to the practical. The starting point has to be reviewing whatever is currently discussed in the literature in various fields, understanding the contextual impositions that would narrow it down or affect it for the Tata group, and finally creating functional definitions and measurement techniques to delineate the concept for the Tata group itself.

This rather long intellectual journey is sought to be accomplished in three stages comprising the present trilogy of which the present paper is the first part. The three stages are:

(1) A comprehensive but focused review of the literature on social capital – of its definitions and measurement approaches – without losing trace of the purpose of the exercise;

(2) An exploration of the likely contextual effects of the geography and sectoral settings of the Tata group on its social capital and its impact;

(3) An exact set of definitions and measurement methods that can enable the Tata group to track its own social capital in a dynamic manner and its likely impact on the group's business and philanthropic objectives.

While the nature of social capital – multi-level, and multi-dimensional that it is – is likely to gain clarity as we progress in our journey, it may not be completely out of place at this point to warn against an expectation of unique answers to questions even at the end of the enquiry. Even a cursory glance at available literature would make it clear that social capital – without getting into its myriad nuances – operates at various levels and for an entity as gigantic and varied as the Tata group it must, by its very nature, operate at multiple levels simultaneously. Hence the expression, while hopefully quantifiable and distinguishable from other productive inputs, is most likely to imply a collection of relationships at various levels rather than one single concept. The net effect of social capital on business objectives must be the combined effect of all these components enforcing one another and in cases, possibly netting out against one another.

Figure 1: Levels of Social Capital in the Tata group

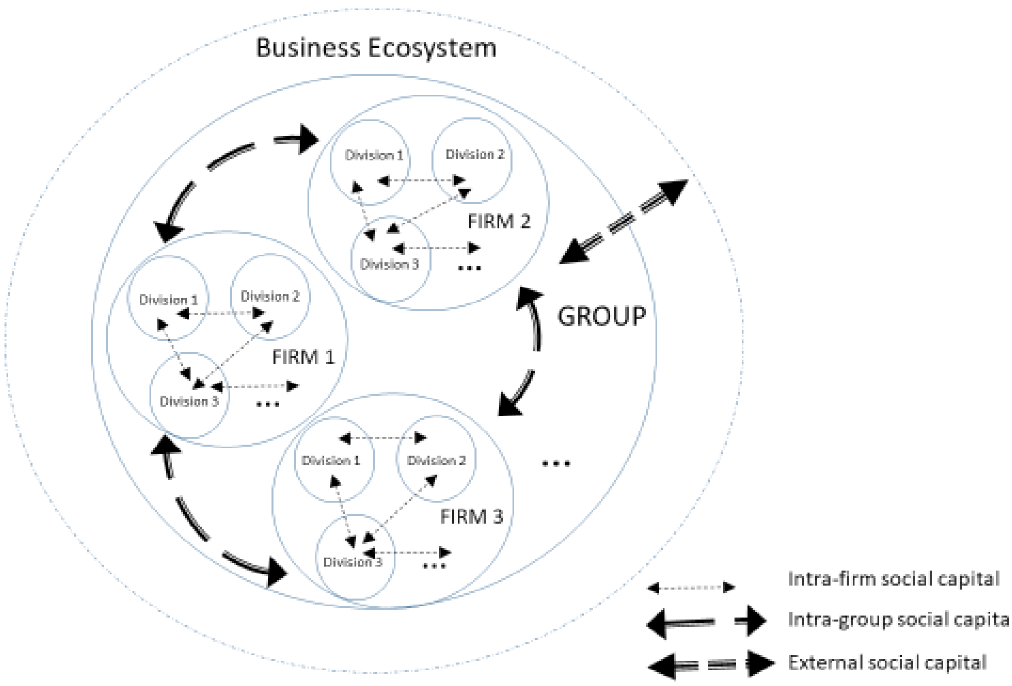

Figure 1 may help clarify the above paragraph to some extent. It presents a conceptual depiction of the Tata group and the various levels of social capitals that are likely to co-exist within the entity at a particular point in time. Even ignoring the individual social capital of Tata employees, social capital can emerge at the divisional level, at the firm-level, at the group-level as well as vis-à-vis the Tata group and all its external stakeholders. Each of these components is potentially a valuable input for the Tata group and understanding, measuring and monitoring them would help the group significantly in managing this important but frequently ignored component of business input.

As the first part of the trilogy, the present paper is restricted only to presenting a broad survey of the literature capturing the various definitions and measurement approaches applied to the concept of social capital, with an attempt at the end to funnel it all down towards producing a practical and usable definition and measurement methodology of social capital for the Tata group.

The paper is structured in the following manner. The section after this definition reviews the various definitions used in literature – cutting across disciplines – for the concept of social capital. The third section attempts to capture the various measurement approaches used in the literature. The fourth section seeks to crystallise, from this discussion, the features of the definition and measurement methodology that would help the most in progressing towards the end-goal of this entire broader exercise. The fifth section concludes by discussing some of the likely data and conceptual challenges that need to be overcome in reaching our end-goal as well as distinctive features that ought to be factored in to account for the contextual realities of the Tata group.

2. Definitions of Social Capital – A Review of the Literature

This section delves into various perspectives – philosophical, sociological, economic and financial / business or oganisational - in literature on the concept of social capital. It presents a review of the definitions in broad literature categorised under various perspectives. While doing so, the focus ultimately narrowed down to definitions of social capital in business or organisational studies. It also presents a critique of the usefulness and limitations from the above perspectives and of the goals of the present exercise.

2.1 Concept of Social Capital: History and Perspectives

The idea of Aristotle, the famous Greek philosopher, who said 'man is by nature a social animal', stands for the concept of social capital[1]. Social capital is seen in one of the primordial features of the human beings' social life i.e. social interactions, relations, ties, and / or connections (Adler and Kwon, 2002). It is observed that the glue that holds society together with a sense of belonging and shared norms is necessary for a functioning social order (Serageldin and Grootaert, 2000). That glue is social relations involving certain critical elements such as trust, reciprocity, shared norms and cooperation. Most of the literature on the concept of social capital observed the significance of social relations as a resource facilitating an action of individual or social actors and benefiting from the same.

The basic premise of the concept is that social interactions, relations, ties and connections in a social or network structure are valuable resources, of course, depending on the density and content of such relations. Social cohesion with encompassing elements such as trust, norms, reciprocity and cooperation, when embedded in social relations and interactions, facilitates coordinated action yielding mutual benefits; such social relations are viewed as a resource in a social structure or organisation. In this way, social capital produces an advantage for those pursuing for it. The social relations and interactions beginning from close family and extended family circuits and then friends' circles and acquaintances to members in a group, community, association, network and in an organisation are the content and substance for realisation or benefiting advantage of social capital as a resource. It is observed that the social ties, connections and / or relations in a social structure are appropriable (Coleman, 1988). In other words, social relations, ties or connections initiated for one purpose would be available for appropriation for other purposes and hence would be beneficial (*ibid*). In all, the concept of social capital is concerned with the existence of social relations / ties /connections between and among actors, and the structure and content of such relations as a resource (Adler and Kwon, 2002).

A systematic treatment of the concept shows that social capital consists of three distinguishable components: a) the possessor or recipient / claimer; b) providers / facilitator / donor or the sources; and c) the resources as such or form of social capital (Portes, 1998). The possessors are those making claims, and the providers or the sources are those agreeing to the demands / requests. The sources are relations, ties and / or connections embedded with trust, shared norms and reciprocity. As it is observed, the structure of the ties or relations that make up the social network and the content of those ties are a source of social capital (Adler and Kwon, 2002). They can be a source providing an opportunity, motivation and improving ability for / of an actor in the structure (*ibid*). As Coleman observes, along with obligations, expectations and trustworthiness of the structure, informational channels and shared norms, and effective sanctions in a social structure are the resources of social capital (see Coleman, 1988). The benefits or the resources can be accessing information, influence or solidarity which is otherwise not possible, i.e., if an actor is not part of that social network or structure (Adler and Kwon, 2002). It is observed that although social capital is the social glue that produces cohesion, it is largely tacit knowledge which comprises a set of cognitive aptitudes and predispositions (Stiglitz, 2000).

Further, discussion on the concept of social capital distinguishes such relations depending on their density, continuum and spread: strong or weak ties, horizontal or vertical connections, open or closed, structural or cognitive, geographically-dispersed or circumscribed, instrumental or principled, and so on (Claridge, 2004). Strong or weak ties is the main content of the analysis in the work of scholars such as Mark Granovetter and Ronald Burt (Granovetter, 1973; Burt, 1992). On the other spectrum, however, most of the studies have focused on internal and / or external ties / connections / relations. The internal social relations, ties, connections within the group / association / organisation are referred to as 'bonding' and external relations across (between) these entities are referred to as 'bridging' and / or 'linking' (see Claridge, 2004; Adler and Kwon, 2002). Bonding relations would bring in group cohesion while bridging relations or connections across different entities in a broader social structure brings in wider social cohesion that result in social harmony (Varshney, 2001). In this respect, in an integrated way, social capital is about social networks of bonding (similar people) and bridging (between diverse people) relations with trust, shared norms and reciprocity (Dekker and Uslaner, 2001).

Some of the perennial problems and challenges inflicted with any social or economic or business organisation in the contemporary world are information asymmetry, governance, transaction costs, defecting contractual obligations, distrust, non-cooperation, etc. Advocates of social capital considered that the concept can explain or resolve these issues and challenges. One of the stands in theoretical construction is that of the phenomenon of opportunistic behavior and self-interested individuals leading to free-riding and rent-seeking, which are observed to be resulting in failure of collective actions that inhibit meeting a larger social/economic goal of social welfare and economic development[2] (Olson, 1971). The opposite stand is such that ***iterated interactions*** (social and / or market)**,** even in game-theoretic conditions, while building trust, cooperation and reciprocity among members of a group / association / organisation along with establishing certain norms, result in mutual benefit and advantage for the group activity (Ostrom, 2014). The concept of social capital is situated in the latter stand.

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1 Aristotle said that "an individual who is unsocial naturally and not accidentally is either beneath our notice or more than human. Society is something that precedes the individual." (Ref.)

2 Mancur Olson made a point that *rational, self-interested individuals will not act to achieve their common or group interests* unless there is coercion or some other special device to make individuals act in their common interest or unless the number of individuals is quite small (Olson, 1971).

As a society comprises several organisations or firms, investigating (assessing and / or evaluating) the nature and performance of these organisations/firms in an interdisciplinary manner has been a longstanding practice (Stiglitz, 2000). The concept of social capital and its other variant, 'embeddedness', is invoked to explain the sociology of economic organisation or development (see Woolcock, 1998; Granovetter, 1973 & 1985). Understanding of social capital provides insight in this regard, in the organisational studies perspective, when organisations / firms are seen as social communities in which social relations / interaction facilitate creation and transfer of knowledge with speed and efficiency, depending on the structure and density of relations (see Nahapiet and Ghoshal, 1998). The important advantages of social capital as widely discussed in literature are information, influence and solidarity (Adler and Kwon, 2002; Coleman, 1988). Among the two distinguished scientific and tacit knowledge systems, the latter is transmitted through social connections / relations in the social or network structure by sharing information (Stiglitz, 2000). In this regard, it is observed that the better connected are better informed and have a better advantage (Burt, 2000).

In organisational studies, while recognising the many facets of social capital, they are put together in three clusters or dimensions: structural, relational and cognitive (Nahapiet and Ghoshal, 1998). While the structural dimension indicates the overall pattern of connections between actors, the relational dimensions focus on the character of the relations that influences an individual actor's behavior (*ibid*). The cognitive and / or later seen as communication dimension refers to access to such resources of social capital those providing shared representation, interpretation and systems of meaning among actors (*ibid*). In other words, facilitating the exchange of information, identifying problems and deriving solutions, and ability to manage conflict.

Brief History

Although the concept of social capital came into prominence during the last two decades, its origin can be traced back to middle of the 19th Century and the beginning of the 20th Century. Alexis de Tocqueville[3], a French scholar, in 1835 linked the American's prosperity to their social participation and democracy that facilitated the equality of conditions and that made them work better. Thereafter, John Dewey, an American educationist, used the term in 1900. L. J. Hanifan, another scholar, referred to the concept of social capital in 1916. Hanifan referred to the (*tangible*) aspects such as goodwill, fellowship, mutual sympathy and social intercourse that count for most in the daily lives of people (Hanifan, 1920). The accumulation of social capital has a potential in improving the living conditions of the community or group (*ibid*). Thereafter, it gained currency during the second half of the last century. The term social capital was used by Jane Jacob in his work in the early 1960s and followed by works of Robert Salisbury, a political scientist, in 1969, Pierre Bourdieu in 1972 and 1980s, Glenn Loury in 1977, James Coleman in 1988, Ronald Burt in 1992, and Robert Putnam in 1990s (Woolcock, 1998).

In Salisbury's work, social capital was a critical component of 'interest group' formation. Following that, although Pierre Bourdieu, the French sociologist, had used the term social capital in his work of 1972, he defined / clarified the concept later in 1980s (Bourdieu, 1972&1986). Bourdieu (1972; 1986) and Glenn (1977; 1987 and 1992) show social capital may be used for producing and reproducing inequality in the society. The work of sociologist James Coleman in 1988 and Putnam's work in 1993 followed by Putnam's 'Bowling Alone' in 1995 and 2000 brought to prominence the concept of social capital and its explanatory power with respect to socio-economic phenomena (Coleman, 1988&1990; Putnam, 1993, 1995 and 2000). Ronald Burt's 'structural holes' theory of social network explained the firm-level variation or organisational differences in success through the metaphor of social capital (Burt, 1992). Subsequently, the World Bank considered the development of the concept and started a 'Social Capital Initiative' in 1997 and published an anthology[4] on this in 1999. During the last two decades, the academic concept of social capital acquired the dimension of policy discussion as well (Ferragina and Arrigoni, 2017). Subsequently, the scientific community and policy makers have turned their attention to application and analysis of the concept of social capital.

Integrating Community and the Individual and Supplementing State and Market

The concept of social capital is observed to be a re-invented idea of social organisation embedded with social relations and interactions that yield mutual benefits while observing social norms, trust, and reciprocity. It was exactly on this basis that the earliest classical sociologists in the antiquity had argued for community governance (see Bowles and Gintis, 2004; Portes, 1998; Woolcock, 1998). One of the basic premises behind the idea was that 'together we are better / strong'. Ever since the 19th Century, with modernisation, industrialisation and consequent urbanisation, there emerged methodological individualism with the emergence of the concepts of *homo economicus* and 'rational choice theory'. It began the debate on traditional community and social relations v*s.* modernisation and individualism, where the former lost its prominence to the latter. But recent references to the idea in the form of the concept of social capital are viewed as synthesis between the values of communitarian approach and individualism of rational choice theory (Ferrogina and Arrigoni, 2017; Bowles and Gintis, 2002).

The emergence of contending camps supporting market or state intervention reduced social engineering to the archaic, and displaced the good citizen with good rules of the game for good governance (Bowles and Gintis, 2002). But with instances of market and state failures, the social engineering in the form of social capital regained its importance especially during the last half of the twentieth century (*ibid*). Community governance is seen as an alternative for good governance; not as a substitute but as complementary, along with market and state, especially when the latter fail. Robert Putnam viewed social capital as a valuable means of combating many of the social disorders inherent in modern societies (Putnam, 1995). A study focusing on the impact of social capital on social harmony and/or governance studied the correlation between inter-ethnic networks (i.e. bridging mechanism of social capital) and

3 French sociologist and political theorist Alexis de Tocqueville (1805-1859) travelled to the United States in 1831 to study its prisons and returned with a wealth of broader observations that he codified in "Democracy in America" (1835), one of the most influential books of the 19th century.

4 See Serageldin and Grootaert (1999) **Social Capital – a Multifaceted Perspective**, World Bank.

intra-ethnic ones (bonding), and its impact on ethnic violence observed that inter-ethnic networks works as agents of peace as they bridge differences and manage tensions between ethnic groups (see Varshney, 2001). It indicates that in situations of communal or ethnic difference leading to violence, social capital in the form of bridging networks brings in social harmony and facilitates better social governance. It is considered that social capital pertains to values such as tolerance, solidarity or trust that are beneficial to society and are important for people to be able to cooperate (Siegler, 2014).

Perspectives of Social Capital

It is observed that not only are perspectives on social capital diverse in origin, and but also in the style of accompanying evidence (Burt, 2000). Social capital concept-advocating sociologists and political scientists viewed it in terms of its advantages / benefits of sociability, mutual benefits, participatory civil society and better governance at community level as well as at state or national level. Better social governance at the community level scaled up to the national level is shown to have benefits for economic development as well (see Putnam, 1993). Robert Putnam is a political scientist who viewed its applicability and advantages from an individual level to collective actors, groups, organisations and to entire social life and regional or national economy.

It is observed that the concept of social capital traversed through minimalist view of individual connections in a network, in the social network analysis (SNA) framework, facilitating an action benefiting an individual to the other extreme expansionist view of advantage of collective action and public policy (see Ostrom and Khan, 2001). In between, there is a transitional view of looking at public good nature of social capital (*ibid*). In the collective action perspective, social capital is the shared knowledge, understandings, norms, rules, and expectations about patterns of interactions that groups of individuals bring to a recurrent activity (Ostrom, 2000). Although Olson makes a point that *rational, self-interested individuals will not act to achieve their common or group interests,* it is so unless there is a particular device and coercive mechanism to do (Olson, 1971). In this regard, Coleman and then Ostrom made a point that social relations involving trust, shared norms, and cooperation in social structure evolve such a special device or a coercive mechanism (Coleman, 1988; Ostrom, 2014).

Economics and business studies have seen that social relations and interactions embedded in a social structure are viewed as a resource / a capital. Social capital has been seen as a resource in resolving the asymmetry of information, minimising transaction costs, and enforcing contractual obligations throughout the supply chain of a firm or an economic organisation. The concept of social capital embedded in social relations stands against the self-interested individuals and opportunistic behavior and stand for mutually beneficial collective action. Institutional economics, in its treatment to firms and other hierarchical organisations, views minimising transaction cost as one of the purposes of an organisation (for instance: Williamson, 1985, 1993). Institutional economists Douglas North and Mancur Olson argued that differences in per capita income across geographical entities cannot be reasonably explained through differences in their productive resource[5] but institutions and other forms of social capital, along with public policies, determine the returns from their other forms of capital (Serageldin and Grooteart, 2000). In Stiglitz' view, social capital can be interpreted in the context of organisational theory as a social means of coping with moral hazard and incentive problem in a market economy (Stiglitz, 2000).

In the economic or business perspective, Williamson and Fukuyama viewed trust as a critical element of social capital that minimises the transaction costs of economy or a business firm throughout its supply chain (see Williamson, 1993; Fukuyama, 1995 & 2000). With a central importance on trust, various studies have examined those components of social organisation (for example, horizontal networks, such as rotating savings and credit associations, commercial guilds, credit cooperatives, civic associations etc.,) that make social capital a productive asset (see Dasgupta, 2000 for references). Coleman and Stiglitz, along with Ronald Burt, have viewed advantage of social capital in information sharing through connections in a social network / structure (see Coleman, 1988; Burt 1992 & 2000; Stiglitz, 2000). Coleman said that unlike the other forms of capital, social capital inheres in the structure of relations between actors and among actors (Coleman, 1988). An actor here can be an individual, family, group, or any organisation. When we see any purposive organisation or a corporate body as an actor, Coleman says, relations among these actors can constitute social capital for them (*ibid*). Baker (1992), while demonstrating that market relations are socially structured, has shown that organisational management can create and extract social capital that inheres in the social structure of relations between business communities / organisations.

When the validity of characterising social capital as a form of capital comes to discussion, it is observed that although it is different from other forms of capital (physical, economic, financial and/or human), it consists of characteristics of capital. Mainstream economists question the appropriability of the term 'capital' as its crucial characteristic features such as 'extension in time', 'present sacrifice for future benefit' and 'alienability' do not really fit into the concept of social capital (Arrow, 1999). In other words, when 'capital' is usually identified with tangible, durable, and alienable objects whose accumulation can be estimated and whose worth can be assessed; it is misleading to use the concept of social capital. It would hence be better to avoid regarding it on par with other forms of capital(s) (Dasgupta, 2000).

However, there are some arguments in justifying the appropriability of the term. First of all, durability of social capital as a resource and asset is considered to be as much as it is in the case of other capitals (Bowles and Gintis, 2002; Collier, 1998). Durability in its form and its effects forms a property of capital (Collier, 1998). Also, it is appropriable and convertible (Coleman, 1988; Bourdieu, 1986). It can either be a substitute or a complement for other resources. Further, like other forms of capitals, social capital also needs maintenance. But its depreciation rate is unpredictable and little different. Unlike the other forms of capitals, it degenerates when it is not being used and it increases when used. One of the distinctions associated with social capital is that it is collective good, and not private property, which is the case with other forms of capital. Besides, social capital is located in social relations. Investment in the development of this form of (social) capital is seemingly not amenable to quantified measurement (Bowles and Gintis, 2002).

5 They include, land and natural resources, human capital, and produced capital including technology.

In the economic and business perspective, in addition to factors of production as introduced by the classical economist and the human capital introduced by T.W. Schulz, Gary Baker and others, the concept of social capital is observed to be important for economic and business organisations (Woolcock, 1998). As Woolcock observes, advanced technology and high human capital 'will amount to little unless that person also has access to others to inform, correct, assist with, and disseminate their work. Life at home, in the boardroom, or on the shop floor is more rewarding and productive when suppliers, colleagues, and clients alike are able to combine their particular skills and resources in a spirit of trust, cooperation, and commitment to common objectives.' (*ibid*).

Both theoretical constructions and empirical findings have shown the association between dimensions of social capital and the firm's or business organisation's performance in value creation, including innovations (Baker, 1990; Burt, 1992; Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998; Adler and Kwon, 2002; Manning, 2015). A study using data collected from multiple respondents in all the business units of a large multinational company has observed that social interaction - a manifestation of the structural dimension of social capital, and trust - a manifestation of its relational dimension, were significantly related to the extent of inter-unit resource exchange, which in turn had a significant effect on product innovation (Tsai and Ghoshal, 1998). While applying the concept to a phenomenon of interface between business organisations and market involving different stakeholders, including bankers and financiers, a study observed the significant impact of social connections as resources in the performance of organisations (Baker, 1990).

The perspectives of social network analysis (SNA), a framework which has been used across disciplines as well, viewed social capital as a resource in the network structure consisting of social connections (one to one connections), both direct and indirect ones. In this SNA framework, social connections in a network are seen as resources that share information on better employment opportunities available, resulting in occupational mobility (Adler and Kwon, 2002). Many of the studies have viewed dense connections in the network as resources providing certain information (for instance, job /employment opportunity, price etc.,) or influence. But Ronald Burt looked in the opposite direction, where gaps in network connections or weak ties provide an opportunity for something like brokerage. In his view, social capital is an opportunity to fill the gap in connections (he referred to it as structural holes) in a network structure (Burt, 1992). In other words, in the above perspective, an agent who connects two otherwise disconnected networks spans a structural hole wherein, individuals who span structural holes earn additional rents from their position in the network (Sobel, 2002).

In small and medium scale industrial and other organisations (SMEs), as Manning (2015) observes, social capital embodied in the social relations and interactions are far more important for the success of these organisations. In such organisations, owner-management is mostly a social activity that requires collaborative connections involving customers, suppliers, partners, financiers / bankers, employers and other key stakeholders. Building relations with self-interested, instrumental and egoistic behaviours would not stand for long. But cultivating work-based or business relations that develop consistency in character, reputation for integrity and trustworthiness among key stakeholders throughout the supply chain is observed to be critical for these organisations. In this regard, it is observed that owner-managers who focussed on calculative, opportunistic and transactional interactions (say self-interested persons' utility maximisation behaviour) found it to be less rewarding than those who focussed on building enduring relational ties/ connections (see Manning, 2015).

Social Capital and Emerging Notions of CSR, Social Investment and Sustainability

There emerges a confusion about social capital over different notions such as corporate social responsibility (CSR), social investment or socially responsible investment (SRI) or the sustainable development (see Chatterji *et al.*, 2009) As the United National Industrial Development Organisation (UNIDO) sees it, CSR is a (strategic business) management concept that involves companies / business organisations integrating social and environmental concerns in their business operations and interactions with their stakeholders[6]. It is a way through which companies or business organisations achieve balance of economic, environmental and social imperatives along with addressing the expectations of shareholders and stakeholders. With this emerged the concept and approach of the 'triple bottom line' (TBL) involving three aspects - 'social, environmental and economic' or 'people, planet, and profit'- accounting for the importance of social and ecological considerations along with profit in doing business. Beyond ensuring compliance with the law and other regulations (social and environmental), CSR improves the environment and does good socially. CSR is considered to be distinct from charity, sponsorship and philanthropy. At the global level, UNIDO and World Business Council for Sustainable Development (WBCSD) are organisations concerned with CSR and resultant sustainable development. Corporate governance is another aspect that is concerned with business organisations.

As UNIDO views, compliance with CSR can bring along a variety of competitive advantages for firms / companies / business organisations in many aspects[7]. CSR or corporate accountability is important to shareholders and / or social investors concerned with ethical investing, especially as ethical consumer culture gains wider acceptance. There have been attempts to assess or evaluate the performance of business organisations with respect to their CSR and governance and its relationship with their economic or financial performances (see for instance Chatterji *et al.*, 2009). Some social and environmental rating agencies have emerged for the purpose[8]. These agencies measured the performance of business organisations in CSR and governance through a composite index referred to as Environment, Social and Governance (ESG) index (see Chatterji *et al.*, 2009; KPMG, 2013).

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6 See at http://www.unido.org/csr/o72054.html

7 Such as enhanced access to capital and markets, increased sales and profits, operational cost savings, improved productivity and quality, efficient human re source base, improved brand image and reputation, enhanced customer loyalty, better decision making and risk management processes.

8 The "Global Profiles" are derived by the Sustainable Investment Research International (SiRi) Company, a consortium of 10 socially responsible investment research organisations based in Europe, North America, and Australia including Kinder, Lydenberg, Domini Research & Analytics (KLD). SiRi is said to be the world's largest independent provider of Socially Responsible Investment (SRI) research and consulting services for institutional investors and financial professionals (see Chatterji *et al.*, 2009).

At this juncture, it needs to be clarified how far one can integrate the concept of CSR and Corporate Governance with that of social capital. Social capital is seen as a resource in social connections within a network structure involving such elements as trust (see Putnam, 1993, Coleman, 1988, Fukuyama, 1995&2001) When direct and indirect connections in the network structure of a business organisation / firm / company operate through the supply chain and develop trust among other stakeholders, they consequently build reputations based on performance in CSR compliance and Corporate Governance; the capital accrued is bound to be advantageous for the organisation as it creates goodwill. As Stiglitz said, social capital is, in a way, 'both an aggregation of reputation and a way to sort out reputations' (Stiglitz, 2000). Further, the concept distinguishes the possessors of social capital (those making claims), the sources of social capital (those agreeing to these demands) and the resources available (Portes, 1998). Here, the organisation is the possessor, and the supply chain and other stakeholders are the source. The social capital developed is then a resource made available to the organisation as the stakeholders become loyal investors, employees, suppliers and consumers.

But can we see it as a resource in the social capital perspective for the organisation? The performance of business organisations in CSR and governance aspects may partly contribute to social capital, while creating goodwill. Again, how far the performance of the organisation in CSR and governance aspects translates or converts into goodwill, particularly through the supply chain and other stakeholders, including consumers that bring in its economic or financial performance, is a matter of concern. On the other hand, social capital refers to social relations / ties / connections among various cadres / categories of human resources, including floor employees and managers within the organisation, between connecting organisations in the supply chain, and among other stakeholders; including shareholders, investors, bankers/financiers and any others. If CSR and governance cover these aspects, it may reflect on social capital.

While CSR and social capital are distinctively separate notions, with the latter being largely non-normative and value neutral, there appears to be a somewhat symbiotic relationship between them. Habisch and Moon (2006) argue that CSR often, though not always, is tantamount to investment in social capital. Jha and Cox (2015), on the other hand, find that firms from higher social capital regions are more likely to spend more on CSR.

'Indianness' of Social Capital: Family Bonding, Independence and Cooperative Movement

One of the forms of social capital that traditionally existed in India is family relations and bonding. But how far this family bonding has been a resource and advantage to family members depends on the family's socio-economic conditions. Unlike Coleman (1988), who viewed family as a resource for raising human capital, Loury (1977) observed that location of the family and its neighbhourhood matter for deriving advantage from social capital. Beyond family bonding, the success of some communities such as Parsis in business can be viewed in this perspective of social capital. As Marx Weber brought out the ethic of Protestantism in the development of capitalism in Britain, and Coleman referred to the Jewish diamond market in New York City, their success is partly due to their social capital. In this regard, Coleman makes a point that close ties formed through, family, community and religious affiliations provide the insurance that is necessary to facilitate transactions in the market (see Coleman, 1988).

At a larger level in India, the 'together, we are strong' notion of social capital has been very well-witnessed in the Indian national movement. It was also explicit in the development of the co-operative movement in India, although it was collapsed deliberately due to political interests and implications.

The basic premise behind initiating the recent Self-Help Group (SHG) movement in India is the success of Rotating Saving and Credit Associations (RoSaCAs), involving promising elements of social capital such as trust, norms, cohesion and cooperation. Similarly, certain forest management associations and Water Users Associations (WAUs) of irrigation, along with several civil society-based organisations (CBOs) were formed to derive the advantages of the elements of social capital for the group member as well as society, at large.

2.2 Definitions of Social Capital

There is no commonly-agreed definition of social capital; and it appears to depend contextually on the discipline and level of investigation (Clardige, 2004). While it is observed that definitions of social capital are broadly similar, there are significant nuances, wherein they vary depending on their focus, i.e., substances, sources and effects of social capital (Adler and Kwon, 2002). The commonality of most definitions of social capital across disciplines, however, is that the central focus has been on social relations that have productive benefits (Claridge, 2004).

One of the earliest definitions of social capital is observed to have emerged in the early 20th Century from French sociologist Lyda Judson Hanifan who defined it as:

> "social capital ... refer[s] to ... those tangible assets [that] count for most in the daily lives of people: namely good will, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit." (Hanifan, 1920: 78).

However, a large part of the literature on social capital refers to definitions of three important scholars (Bourdieu, Coleman and Putnam) who brought the concept of social capital into fame (see Adler and Kwon, 2002; Serageldin and Grootaert, 2000; Portes, 1998; Woolcock, 1998; Burt, 1992&2000). Although these three scholars seem to have differences in their definitions of social capital, their central focus was social structure as a resource that produces an advantage or an action beneficial for those pursuing the same (see Bourdieu, 1986; Coleman, 1988, Putnam, 1993). For Bourdieu, social capital is a resource that results from a social structure. For Coleman, social capital is a function of social structure producing an advantage (see Burt, 2000). Coleman defines social capital as a social structure that facilitates certain actions of actors within the structure (Coleman, 1988). The actors herein can be individuals or corporate bodies.

For Putnam, social capital is an action facilitated by the social structure. Putnam makes it that "…certain features of social organisation, such as trust, norms and network that improve the efficiency of a society by facilitating a coordinated action" (Putnam, 1993). While Putnam's definition seems to be a little narrow, focusing only on horizontal associations among people, Coleman's definition refers to both horizontal and vertical / hierarchical relationships (see Serageldin and Grootaert, 2000). Following Coleman, Baker defines it as a resource that actors derive from specific social structures and then use to pursue their interest (Baker, 1992). Ronald Burt viewed it as "friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital" (Burt, 1992). Fukuyama defines it as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among themselves (see Fukuyama, 1995; 2001&2000). Woolcock defined it as the "information, trust, and norms of reciprocity inhering in one's social networks" (Woolcock 1998, p. 153).

One can make a point that these are the very basic definitions and those that subsequently came up have roots in these. The subsequent definitions operationalised the concept fitting into their analysis. If we present an integrated view of the definitions across disciplines and studies, one would see certain common elements. Most of the definitions explicitly or implicitly refer to a social or network structure where the social capital inheres. It can be family, ethnic or religious communities, acquaintances, social or purposive groups / associations / organisations or business organisations. Also, most of the definitions refer to social relations, ties or connections in these structures that facilitate access to resource(s) of social capital. They also refer explicitly and implicitly to the critical elements of trust, shared norms / values, reciprocity, cooperation which would facilitate a coordinated action in realising the value of social capital and benefiting from it. Some of the advantages they refer to are information sharing, influence, solidarity, a coordinated action. All of them influence market relations and improve ability of the market to function efficiently. For instance, clearing information asymmetry, moral hazards and adverse selection (incentive problem), and minimising transaction costs. Hence, most of the definitions are intended to refer to intertwined relations between social relationships and market relations or economic activities and the resultant outcomes (Serageldin and Grooteart, 2000; Dasgupta, 2000).

Although most definitions refer explicitly or implicitly to all of the mentioned aspects, the differences one can see is in their focus - whether it is substance, source or effect of social capital (Adler and Kwon, 2002), and accordingly their wording of definition differed. Secondly, some of the definitions are focused on internal relations (i.e. bonding), some are on external or inter-group relations (i.e. bridging or linking) and some others on both the internal and external relations (see Claridge, 2004; Adler and Kwon, 2002).

Table 2.1: Definitions of Social Capital

Authors	Definitions of Social Capital
Baker	'a resource that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors'; (Baker 1990, p. 619).
Belliveau, O'Reilly & Wade	'an individual's personal network and elite institutional affiliations' (Belliveau *et al.* 1996, p. 1572).
Bourdieu	• 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition' (Bourdieu 1986, p. 248). • 'made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility' (Bourdieu 1986, p. 243).
Bourdieu & Wacquant	'the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition' (Bourdieu and Wacquant 1992, p. 119).
Boxman, De Graai & Flap	'the number of people who can be expected to provide support and the resources those people have at their disposal' (Boxman *et al.* 1991, p. 52).
Brehm & Rahn	'the web of cooperative relationships between citizens that facilitate resolution of collective action problems' (Brehm and Rahn 1997, p. 999).
Burt	• 'friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital' (Burt 1992, p. 9). • 'the brokerage opportunities in a network' (Burt 1997, p. 355).
Coleman	'Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure' (Coleman 1990, p. 302).
Fukuyama	• 'the ability of people to work together for common purposes in groups and organizations' (Fukuyama 1995, p. 10). • 'Social capital can be defined simply as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them' (Fukuyama 1997).
Inglehart	'a culture of trust and tolerance, in which extensive networks of voluntary associations emerge' (Inglehart 1997, p. 188).
Knoke	'the process by which social actors create and mobilize their network connections within and between organizations to gain access to other social actors' resources' (Knoke 1999, p. 18).
Loury	'naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace. . . an asset which may be as significant as financial bequests in accounting for the maintenance of inequality in our society' (Loury 1992, p. 100).
Nahapiet & Ghoshal	'the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network' (Nahapiet and Ghoshal 1998, p. 243).
Pennar	'the web of social relationships that influences individual behavior and thereby affects economic growth' (Pennar 1997, p. 154).
Portes	'the ability of actors to secure benefits by virtue of membership in social networks or other social structures' (Portes 1998, p. 6).
Portes &Sensenbrenner	'those expectations for action within a collectivity that affect the economic goals and goal' seeking behavior of its members, even if these expectations are not oriented toward the economic sphere' (Portes and Sensenbrenner 1993, p. 1323).
Putnam	'features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit' (Putnam 1995, p. 67).
Schiff	'the set of elements of the social structure that affects relations among people and are inputs or arguments of the production and/or utility function' (Schiff 1992, p. 160).
Thomas	'those voluntary means and processes developed within civil society which promote development for the collective whole' (Thomas 1996, p. 11).
Woolcock	'the information, trust, and norms of reciprocity inhering in one's social networks' (Woolcock 1998, p. 153).
Source: Adopted from Adler and Kwon (2002).	

2.3 Critique and Limitations of the Concept of Social Capital

Along with vast literature advocating and highlight the advantages of the concept of social capital, there is considerable literature critiquing or that made a critical review of the concept across disciplines, particularly in sociology and economics (see Portes, 1998; Woolcock, 1998; Solow, 2000, Arrow, 2000; Sobel, 2002; Levien, 2015).

The definitions of social capital as available in existing literature refer to the majority context i.e. society as the unit of analysis. How we particularise / operationalise the various definitions is another instance. Structurally speaking, the particularity of the situation may not be bereft of the influence of dynamics or competing group interests of the broader society. In this context, the limitations of applying the concept of social capital to society as a unit of analysis needs to be taken into consideration while applying it to the particular situation, as in this case where we seek to apply it to the Tata Sustainability Group. Then this would constitute a firm-level analysis. The criticisms and limitations of the application of the social capital concept to society are looked into in this write up. In doing so, the implications of social capital on a firm-level analysis are pointed out.

In their introductory observations on the World Bank study of Social Capital (see Dasgupta and Serageldin, 2000), Kenneth Arrow and Robert M. Solow express serious concerns about the concept of social capital. Kenneth Arrow says,

> "The concept of measuring social interaction may be a snare and a delusion. Instead of thinking of more and less, it may be more fruitful to think of the existing social relations as a pre-existing network into which new parts of the economy (for example, development projects) have to be fitted.... More specifically, I would urge abandonment of the metaphor of capital and the term, 'social capital'" (p.4: Arrow, 2000).

For Arrow, the three aspects of capital namely, 'extension in time', 'present sacrifice for future benefit' and 'alienability' do not really fit into the concept of social capital. Social networks are essentially formed for non-economic reasons and 'the reward for social interactions is intrinsic' (*ibid.*). On the relationship between market and social interactions, market dynamics may 'destroy the willingness to offer trust or, more generally, to invest in the future of relation', for instance, labour or supplier turnover in response to prices (*ibid:*p.5).

Robert M. Solow, though sounding little optimistic, refers to the difficult and complicated nature of the study of social capital. For him, the studies till then did not yield any comprehensive ideas and got drenched in 'casual empiricism'. Mirroring Arrow's objections to the measurement of social capital, Solow says, "...it (social capital) is an attempt to gain conviction from a bad analogy" (*ibid:*p.7). The tangible capital as a 'stock of produced or natural factors of production' will yield 'productive services for some time' has a 'rate of return' and is 'accumulated'. In this regard, the analogy between tangible capital and 'human capital' paid off as the previous investment in 'education', 'training' and 'research' is a stock and calculating the earnings of human capital shows the differences "in productivity between one place and another, and between one time and another." (*ibid.*).

However, as Solow says, the issue with social capital is different. How could things like trust, reciprocity and the quality of contributing to the common effort, though having positive influence on aggregate productivity, be a stock? Solow goes on to add, "Any stock of capital is accumulation of past flows of investment, with past flows of depreciation netted out. What are those past investments in social capital? How could an accountant measure them and cumulate them in principle?" Solow is suggesting an alternative phrase for 'social capital'. For him, there are evolutionary forces at work behind societies and groups ─ 'repertoire of behaviour patterns', 'institutions and habits' and adaptability, etc. He concludes that addressing these set of issues in the 'language and apparatus of capital theory' may not be helpful (*ibid: p.8,9*).

Michael Levien (2015) distinguishes between individual social capital (as Bourdieu's distinct theory) from the 'Putnam-inspired' theory of collective social capital. He argues that "networks, norms and trust should be treated not as composite stocks, but as independent variables that, especially during processes of economic development, often stand in considerable tension with each other" (Levien, 2015: p. 77). This is because the individual social capital stands opposite to collective social capital─ "individual interests are pursued at the cost of social norms, trust and collective solidarity" (*ibid.*).

Levien draws attention to how the aspects/dimensions of social capital interacting in a dynamic situation of socio-economic change as distinct to an assumed static situation. Social capital as social networks that benefit the individuals and families is the *individual social capital* available as unequally-distributed private good. This version is attributed to Pierre Bourdieu. On the other hand, the *collective social capital* as 'stocks' of networks, norms and trust operate in larger social units leading to collective action for mutual benefit is a public good. This version is attributed to Robert Putanam. Now the point is that as Levien shows through his study of rural land brokerage of the individuals securing benefits from a Special Economic Zone, the unequal access to social networks are used to further individual interests "at the cost of social norms, trust and collective solidarity" (*ibid.*). The high caste land owners/ brokers took undue advantage of their high individual social capital to reap benefits off land sale affecting the opportunities of the lower caste landowners/brokers of the village with less social capital. This also precluded any collective action for redressal of common problems arising from the project. This can be a good learning experience when companies look into community initiatives if they consider this aspect. At the micro level, we can locate these twin aspects of social capital in the case of a working team in how the team leader, given his *individual social capital,* would facilitate the betterment of the team in the instance of a new project coming up. Would he take the entire credit or let the team also share the credit?

Networks are available to individuals/families and the norms and trust go on to explain how the web/hierarchy of networks are justified. This is how networks, norms and trust are separate. Hence, Levien says,

> "...when new forms of wealth and economic activity are being introduced into inegalitarian rural contexts that established norms and trust are challenged, undermined, and opportunistically exploited by more powerful and better-connected individuals. In such situations, individual social capital is more likely to win the day and be an obstacle to inclusive development" (*ibid.*p. 78).

The endowments of networks, norms and trust are assumed as "composite asset that represents a community's capacity for cooperation and collective action" (*ibid.*). However, causal relationship between these three features is never specified. Secondly, coming to the aspect of 'bridging' and 'bonding', it is pointed out that "individuals derive significant power and benefit from connecting and bridging diverse groups" (*ibid:* p. 79). Levien refers to historical and sociological research which shows the infamy of the middlemen and brokers in India (*ibid.*). Because of the recognised negative outcomes of social capital and the 'unclear' relationship between the structure of network and their content in collective social capital theory, the static picture of assuming norms and trust as given 'stocks' becomes problematic in a dynamic/changing environment as "people utilize networks for various ends in a changing social context" (*ibid.*). Levien suggests that this requires a greater ethnographic attention to micro-social processes. In this regard, the question is how we locate this in the context of a firm. Could we look into the social-religious categories i.e. the diversity of the workforce, for a probable answer?

Levien quotes Portes that "the greatest theoretical promise of social capital lies at the individual level" (*ibid:*p.80). Taking *individual social capital* as a starting point and locating the larger social structure conditioned by power/hierarchical relationships, one would be able to "better capture the dynamic ways in which networks, norms, and trust relate to each other in a context of socio-economic development" (*ibid.*). For Bourdieu, as per Levien, social capital is intrinsic to the power structure in the society and like economic and cultural capital, social capital "refers to an unequal distribution of a particular social power". Social capital is also interlinked with economic and cultural capital. Thus, "while economic capital refers to control over material resources, cultural capital to acquired knowledge and credentials, social capital refers to connections that enable individuals to accrue material or symbolic benefits based on who they know". It does not simply arise from the fact of connectedness, but from the quality of one's connections ─ the economic, cultural, and other forms of capital possessed by those in one's network" (*ibid. p.80*). Now the question is how we locate this in the context of a firm.

Apart from trust or norms or reciprocity, calculative self-interest may determine social connections. The individual's social networks may stand disconnected with the trust and norms of the larger society, for instance, 'village, neighbourhood, or country'. The individual may use his/her social network at the cost of social norms or others' trust. This may lead to '*symbolic* struggles' to re-draw the norms for individual benefit, "...in effect, to *morally launder* the individual gains derived from utilizing their social capital" (*ibid.* p.80). In this regard, Levien refers to studies in rural Algeria (Bourdieu, 1979) and rural Malaysia (Scott, 1985). Thus, in the context of development, economic change may "unleash divisive struggles over norms than to unleash collective action based on shared ones" (*ibid*). Thus, Levien summarises Bourdieuian model of individual social capital as,

> "Individuals within any social unit are endowed with social networks of unequal quality and quantity, which are rooted in class inequalities (economic and cultural capital). These networks are not necessarily coterminous with any social unit, and have no necessary relationship with the norms or levels of trust within it. In fact, individuals more often than not use their networks for individual gain (converting it into other forms of capital) rather than collective good. This use and conversion of social capital can often conflict with norms and undermine trust, creating conflict and symbolic struggle rather than collective action. This is particularly likely to occur in rapidly changing economic contexts where new forms of economic activity clash with pre-existing norms" (*ibid.* p. 80).

Understood in this way, social capital has a negative relationship with development. The aspect of 'who they know' may lead to differential exploitation of new economic opportunities or government programmes. The individual use of social capital may violate collective norms and trust and thus undermine collective action for collective development outcomes. Thus,

> "If development is taken to mean a broad-based and inclusive improvement in economic and social well-being, particularly for the poor..., then social capital may be one of the most significant obstacles to its realization. The implication is that development interventions should aim to undermine or check social capital rather than harness it" (ibid.p.80).

Levien uses the case of rural land brokerage in a Rajasthan village where a Special Economic Zone (SEZ) is set up to show how "individual social capital contributes to the ability of dominant classes (which correspond tightly with dominant castes) to monopolize benefits as the intermediaries of economic change" (*ibid*: p.88). He goes on to observe that "monetization of individual social networks is likely to cannibalize trust and undermine existing norms, and in the process reduce the solidarity necessary for collective action" (*ibid.*).

Limitations for Firm-level Study

Given the above discussion, and the qualitative nature of social capital, a quantitative measurement of social capital is complex. In this process, the sites / sources of social capital need to be identified for a firm-level measurement. As a first approximation, internal and external activities of the firm are the sources of social capital. In these, one can categorise things like the role of the management, the marketing division, the firm's supply chain, and the relationship with community stakeholders, etc.

3. Measurement of social capital – A selective survey of the literature

What is difficult to define is usually even more difficult to measure. This general statement is certainly applicable to social capital. As Fukuyama (2001) points out, providing a believable census of a society's stock of social capital is a nearly impossible task, since it inevitably involves using estimates that, when they exist, are very subjective. Also, as in the case of definitions, the measurement approaches are also purpose and context-dependent. What counts as a measure of social capital from a community-trust perspective of social capital is likely to be vastly different from what measures the concept from a firm's perspective of social capital being a usable and accumulable factor of production.

Severe challenges remain in translating the various theoretical components of social capital into valid and measurable constructs (Kawachi *et al.*, 2004) resulting in the development of a wide range of tools to measure social capital (for example Buckner, 1988;Grootaert & van Bastelaer, 2002; Harpham, Grant, &Thomas, 2002; Hean, Cowley, Forbes, Griffiths, &Murrells, 2003; Narayan & Cassidy, 2001; Yang, Yang, Shih, & Kawachi, 2002). Yet validation remains a major issue. As De Silva et al 2006 point out from the perspective of health research, "...a search of the literature found only eleven studies attempting some validation of social capital tools, despite there being well over 150 studies cited in Medline examining the association between social capital and health (Kawachi *et al.*, 2004), and many hundreds more exploring the relationship between social capital and non-health related outcomes (Halpern, 2004, cited in Putnam, 2004)."

In this section, we review the existing literature on measurement of social capital including a few of the critique of these measures using a **National, Community, Firm** funnel approach. There have been attempts to measure a nation's stock of social capital and compare it with that of other countries. There have also been attempts to measure the social capital at the community level, usually but not necessarily always, at the sub-national level. Finally, management and business literature has also sought to measure social capital and its effect on firm performance. Instead of attempting to cover as many papers seeking to measure the concept as possible (for a more comprehensive survey, please see Durlauf and Fafchamps (2004)), our attempt here has been to select a representative paper from each category and explain the broad approach to measurement as well as the use of its selected data sources.

Representativeness does not imply consensus, however. There are variants of these measures used in other papers within the same broad category, differing in choices of specific variables but broadly within the same conceptual approach to measurement.

Table 3.1-3 (below and following pages) summarises the broad approaches to measuring the concept of social capital from various perspectives and representative papers in these genres that we discuss in this section. Also included are the data sources used.

Table 3.1: Selected measurement approaches for social capital at Country Level

Country level Measures		
Paper: Knack and Keefer (1997)		
Indicators	Proxies/Measures	Data Source
Trust Civic Groups	Trust- Percentage of individuals in a country who answered "most people can be trusted" to the question "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people" Civic- Respondents were asked to assign a score as to whether they agreed that certain behaviors were justified. The five behaviors are (1) claiming a government benefit to which you are not entitled, (2) avoiding a fare on public transport, (3) cheating on taxes if you have the chance, (4) buying something that you knew was stolen and (5) accepting a bribe in the course of one's duties Groups- Average number of groups people belong to in each country	World Values Survey
Paper: Hamilton, Helliwell and Woolcock (2016)		
Indicators	Proxies/Measures	Data Source
Trust	Derives the income-equivalent value of any given level of social trust by taking the ratio of the two effects, social trust and income on subjective well-being. Converts it into wealth-equivalent by taking present value of flow of benefits	Gallup World Poll, European Social Survey, World Values Survey

Measurement of Social Capital at the country level

The World Values Survey (WVS); started in 1981 in an attempt to empirically capture people's values and beliefs, how they change over time and what its social and political impact are; has opened the doorway to studies attempting to measure social capital at the country level, cross-country comparisons and explanations of socio-economic phenomena using social capital. The WVS is carried out by a worldwide network of social scientists through representative national surveys in almost 100 countries. Among the phenomena measured by WVS are support for democracy, tolerance of foreigners and ethnic minorities, support for gender equality, the role of religion and changing levels of religiosity, the impact of globalisation, attitudes toward the environment, work, family, politics, national identity, culture, diversity, insecurity, and subjective well-being.

Knack and Keefer (1997), in one of the most widely-cited papers in this genre**,** uses three WVS parameters to define and measure social capital – the degree of trust (TRUST); norms of civic co-operation (CIVIC); and membership of networks (GROUPS) – within society. They call the proxies TRUST, CIVIC and GROUPS respectively. The data for the following study has been taken from the World Values Survey (WVS), which is a global research project that explores people's values and beliefs, how they change over time and what social and political impact they have.

TRUST measures the percentage of individuals in a country who answered 'most people can be trusted' to the question: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people". CIVIC is an index ranging from 5 to 50, as a sum of WVS respondent justification scores (between 1 (never justified) and 10 (always justified)) for each of the following five behaviours: (1) claiming a government benefit to which you are not entitled, (2) avoiding a fare on public transport, (3) cheating on taxes if you have the chance, (4) buying something that you knew was stolen and (5) accepting a bribe in the course of one's duties. GROUPS is the average number of groups people belong to in each country.

Their finding appears to suggest that trust and civic norms are both strongly related and have a far greater economic impact than group membership as claimed by Putnam in his study of Italian regions before them. Other authors in this genre (e.g. Zak and Knack, 2001; Whiteley, 2000; La Porta *et al.,* 1997) have also used these and similar these proxies, especially TRUST.

The approach, however, is not free from criticism. Statistically, the WVS coverage varies massively across countries in terms of sample size and representativeness. At a conceptual level, Glaeser *et al*. (2000) show that peoples' answers to the trust question from the World Values Survey are not correlated with how trusting they are of others in economic experiments though it correlated strongly with a Reader's Digest experiment. Also the identity of 'most people' – whether people you come into contact with regularly (thick trust), or anyone in your own village or country (thin, or generalised, trust) – is unclear, nor is, as Guinnane (2005) points out, the degree of trust. Moreover, CIVIC seems to measure 'civic virtue' more than 'civic norm'. Finally, the GROUPS variable considers only the number of associations an individual belongs to rather than taking into account the strength of membership.

Hamilton, Helliwell and Woolcock (2016) use a modelling approach to measure national-level social capital. Their conceptualisation of social capital, is based on the OECD's definition (2001, p.41) as "networks together with shared norms, values and understandings that facilitate co-operation within or among groups". The intuition behind their measure is to see how much social trust and income individually contribute to subjective well-being in a society. Comparing these two then provides an income-equivalent measure of social trust. In other words, they measure the value of a unit of social trust in terms of income that would produce the same effect on well-being.

Their main data sources are three large international surveys that have in some or all of their survey rounds asked the social trust question. These include the Gallup World Poll (in which the social trust question was only asked in most countries for only a single year, usually 2009), six waves of the biennial European Social Survey (2002 through 2012), and six waves of the World Values Survey (covering1981-2014).

Their calculations assign a $ per capita value to social capital enabling a direct relative comparison of social capital with other forms of capital in society – produced, natural and human – providing some interesting findings. Looking at ten developed countries in 2010 they find that in six of them – Netherlands, Canada, USA, UK, Poland and Israel – social capital exceeds produced and natural capital (human capital is by far the highest in all countries). In Netherlands, it accounts for as much as 29% of the sum of all four kinds of capital. Even in the other four countries – Spain, France, Italy and Romania – it far exceeds natural capital in value and its least contribution to the sum (in Romania) is above 9%.

Table 3.2 Selected measurement approaches for social capital at Community Level

Community level Measures		
Paper: Putnam and Helliwell (1995)		
Indicators	Proxies/Measures	Data Source
Civic community Institutional Performance Citizen Satisfaction	Civic community- newspaper readership, availability of sports and cultural associations, turnout in referenda, and the incidence of preference voting. Institutional Performance- Twelve different elements which range from the timeliness of the budgets to measures of bureaucratic responsiveness. combined into a single factor score for institutional performance measure the relative performance of regional governments Citizen Satisfaction with the activities of the government	Various country surveys
Paper: Krishna and Shrader (2000)		
Indicators	Proxies/Measures	Data Source
Social Capital Assessment Tool (SCAT)	Community profile- community assets identification; prior experience of collective action; mechanisms available for conflict resolution; community governance and decision-making patterns; local organizations and networks. Individual household's stock of and access to social capital household's membership in different types of local organizations; quality of participation, respondents' expectations about whether community members would act in concert with one another, conflict and conflict resolution, trust, solidarity and reciprocity Organizational Profile- organization's origins and history, quality of membership (why people join, exclusion and inclusion of particular sub-groups, etc.), institutional capacity (quality of leadership, participation, organizational culture, and organizational capacity)institutional linkages (extent and nature of exchange with other governmental and non- governmental agencies)	Author's own survey
Paper: Fafchamps and Mintens (2002)		
Indicators	Proxies/Measures	Data Source
Social capital networks	Number of relatives in agricultural trade Number of other traders known Number of potential informal lenders	Survey of agricultural traders
Paper: Haddad and Maluccio (2003)		
Indicators	Proxies/Measures	Data Source
Trust Group member-ship	Trust- Whether the household has been a victim of crime in the past Group membership- Amount of time household has been in an area	South African National Household Survey (KwaZulu-Natal Income Dynamics Study)

Measurement of Social Capital at the (Sub-national) Community Level

Differences in emphasis notwithstanding, the standard views of social capital appear to gravitate around the three pillars of trust, social norms and membership of groups or networks. These are frequently stronger among communities – castes in India for instance, professional or geographical groups – smaller than the political expanse of the nation-state. Survey-based studies of groups have therefore fed researchers keen on analysing the nature and strength of these concepts at sub-national levels, not always with consistent findings.

Helliwell and Putnam (1995) use measures of social capital to explain regional differences (in Italy) in the level and rate of growth of GDP per capita. The paper draws on the following three indices of social capital:

1. 1. The *Civic community index* composed of four indicators, two of them – newspaper readership, and the availability of sports and cultural associations – measuring the breadth and depth of the civic community and the others – turnout in referenda, and the incidence of preference voting – measuring political behaviour of citizens.
2. 2. The *Institutional Performance index* combines twelve different elements ranging from the timeliness of the budgets to measures of bureaucratic responsiveness into a single factor score to measure the relative performance of regional governments.
3. 3. The *Citizen Satisfaction index* is based on the responses of large sample survey participants to the query on how satisfied they were with the activities of the government to compare the 'very' or 'rather' satisfied with 'little' or 'not at all' satisfied.

These measures help Helliwell and Putnam demonstrate that the presence of social capital significantly facilitated convergence of per capita income across regions in Italy in the 1960s and 1970s.

Krishna and Shrader (2000) design and field test the **Social Capital Assessment Tool (SCAT)** as a first step toward the development of a uniform measure of micro-level social capital. The tool has three key components, which may be applied separately, sequentially or simultaneously (the preferred method).

- The ***community profile*** of the SCAT combines participatory qualitative methods with a community survey instrument to identify features associated with social capital in a particular cultural and institutional context. Group interviews are conducted within communities. Items in this profile include those related to community assets identification; prior experience of collective action; mechanisms available for conflict resolution; community governance and decision making patterns; and local organisations and networks.
- The ***household survey*** component includes 39 close-ended items that relate to the structural dimension of social capital and 21 close-ended items that relate to its cognitive dimensions. Administering this instrument among a large random sample of individuals or households helps quantitative measurement of social capital.
- The third component is an ***organisational profile*** designed to capture the relationships and networks that exist among formal and informal institutions. Combining semi-structured interview data with a scoring system for organisational capacity and sustainability, it can be used either as a stand-alone instrument for assessing the strengths of particular local organisations; or incorporated into an overall assessment of local-level institutional networks in the community.

The SCAT methodology can be used for virtually all stages of assessment of a project – *quick assessment, baseline estimation, monitoring* and *evaluation*– to provide insight regarding project sustainability and the role of social capital in future development interventions.

Fafchamp and Mintens (2002) segregate definitions of social capital into two categories. The first, including those of Coleman (1988) and Putnam *et al*. (1993), sees "social capital as a 'stock' of trust and an emotional attachment to a group or society at large that facilitate the provision of public goods". The other category of definitions views social capital as "an individual asset that benefits a single individual or firm", sometimes referred to as social *network* capital to avoid confusion. They use three different proxies for social capital networks: (i) the number of relatives in agricultural trade; (ii) the number of other traders known; and (iii) the number of potential informal lenders.

Their data come from a survey of agricultural traders conducted in Madagascar in a joint project between IFPRI (the International Food Policy Research Institute) and the local Ministry of Scientific Research (FOFIFA) that, in 1997, collected information on the individual characteristics of traders and on the structure, conduct, and performance of the trading sector as well as the nature of respondents' relationships with other traders, clients, and suppliers.

The sample design was constructed so as to be as representative as possible of all the traders involved in the whole food marketing chain from producer to consumer, rural, and urban. Their findings contest the Knack and Keefer finding in that they find network to be a major source of economic value for traders in Madagascar.

Haddad and Maluccio (2003) typify a significant literature measuring social capital using household data (to study its effect on economic outcomes). They use a variety of instruments for trust and group membership, including their lagged values. They suggest that the amount of time a household has been in an area can be used as an instrument for group membership. They also suggest measuring trust using the instrument variable of whether the household has been the victim of crime in the past.

The interesting contribution of Haddad and Maluccio is that they go deeper into the type of groups and the kind of people who are trusted than examined before them in the literature. A surprisingly detailed survey in South Africa in 1993 and 1998 allows them to study these features at the depth that they go into.

Their empirical results suggest that local trust in neighbours and extended family is important for financial group participation, and that groups create social interactions that generate trust in non-local agents (strangers, the media, and national government). Furthermore, group membership, both financial and nonfinancial, is a key determinant of per capita income. Treating group membership as a proxy for social capital suggests a positive effect for social capital, particularly in the case of nonfinancial-group membership where there are no explicit financial benefits envisioned. There is no evidence, however, that trust is contemporaneously important for income generation.

Table 3.3 Selected measurement approaches for social capital at Firm Level

Firm Level Measures		
Paper: Tsai and Ghosal (1998) a la Naphiet and Ghosal (1997)		
Indicators	Proxies/Measures	Data Source
Social interaction Inter-unit trust Shared Vision	Social Interaction Created two "sociomatrixes" from data on the social interactions based on questions asking: "With people of which units do you spend the most time together in social occasions" and "…the units which maintain close social relationships with your unit." Inter-unit trust was measured similarly using two different questions about trust yielding two relational matrixes of inter-unit trust and trustworthiness. Shared vision was measures by using the scores on a Liekert scale on the following questions on whether their unit shares the same ambitions and visions with other units and work, and whether people in their unit are enthusiastic about pursuing the collective goals and missions of the whole organization.	Author's own survey
Paper: Yli Renko *et al* (2001)		
Indicators	Proxies/Measures	Data Source
Social Interaction Relationship quality Customer network ties	All statement-style items were measured on a scale from 1=do not agree to 7=completely agree Social Interaction: We maintain close relationships with this customer, and personal relations with the customer's people In this relationship both side avoid making demands that can seriously damage the interest of the other This customer has 'opened new doors' of other customers for us	Author's own survey
Paper: Robert *et al* (2008)		
Indicators	Proxies/Measures	Data Source
Relational Capital (trust, identification, norms, obligation) Structural Capital(Network Decentralisation, tie intensity) Cognitive Capital	Similar to Yli Renko(2001) the responses were marked on a scale of 1 to 7. Relational Capital Trust: Given my teammates previous performance, I see no reason to doubt their competence and preparation for another team task. Identification: I find it easy to identify myself with the team. Norms: There is a norm of teamwork in this team. Obligation: Most, if not all, the members of my team felt mutually responsible for the team's performance. Structural Capital Each team member was asked to rate how much they worked with, communicated with, and depended on other team members. Cognitive Capital What Is the degree to which team members share a common understanding of what Is important to the task.	Author's own survey
Paper: Kirsch *et al* (2010)		
Indicators	Proxies/Measures	Data Source
Team-based clan control Cognitive Social Capital Structural Social Capital Relational Social Capital	Similar to Robert(2010) the responses were marked on a scale of 1 to 7. Team-Based Clan Control Shared norms, values and a vision among the project team members influenced their project-related behaviors. Cognitive Social Capital Team members were asked to evaluate the level of expertise for the project team as a whole in terms of the development methodology, the modeling techniques etc. Structural Social Capital How much open discussions of issues was there in your project team, and what was the degree of communication. Relational Social Capital The project team members approached their jobs with professionalism and dedication, so much so that there was no need to doubt their competence.	Author's own survey

Measurement of Social Capital at the (Sub-national) Community Level

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2. 2. The *Institutional Performance index* combines twelve different elements ranging from the timeliness of the budgets to measures of bureaucratic responsiveness into a single factor score to measure the relative performance of regional governments.

3. 3. The *Citizen Satisfaction index* is based on the responses of large sample survey participants to the query on how satisfied they were with the activities of the government to compare the 'very' or 'rather' satisfied with 'little' or 'not at all' satisfied.

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Measurement of Social Capital as a Productive Asset of a Firm

An increasing body of literature in business/management has also been discussing the impact of social capital on firm performance. While significant progress has been made in the analytical dissection of the concept, only a relative minority among authors has delved into actually measuring it. Nevertheless, the strand of conceptualisation on the business side has been quite distinct from the sociological/economic side. Perhaps they have rather expectedly stressed the 'capital' part more than the 'social' part. A brief summary of these is helpful in understanding the measurement strategy used. Sociological/economic researchers have largely used the triad of Trust, Norm, and Group membership. Business researchers, on the other hand, have built slightly different dimension constructs to capture the concept and its usefulness in a business context, while adding a few qualifiers for to it to really count as 'capital'.

Adler and Kwon (2002) scan the literature to conclude that the following qualifying features are essential for social capital: durability; appropriability; convertibility (to other forms of capital including financial); complementarity/substitutability with other forms of capital; requirement of maintenance; collective good nature (partly private and partly public good); location in relations between actors than in the actors themselves; limited measurability. While the last feature explicitly points out how difficult measuring is going to be in this area, it is the penultimate feature of its location that has been the distinguishing feature of social capital – that it is essentially a network property but one which brings benefits to its appropriator or owner.

How does social capital actually help in the business world? Here too, Adler and Kwon (2002) list benefits identified in the literature. Firms are expected to gain in recruitment and reduce turnover rates. Other benefits include inter-unit resource exchange and product innovation; intellectual capital generation; increased effectiveness of cross-functional teams; improved supplier relations, expanded regional production network and inter-firm learning. Start-ups and entrepreneurs are supposed to benefit immensely from it as are individuals looking for jobs to build their careers.

Tsai and Ghoshal (1998) was among the earliest papers to empirically examine social capital and understand firm-level phenomena. Their study was conducted using network analysis in a large multinational electronics company, one with over 30,000 employees and more than $4 billion in revenue in 1996). The authors used a mailed questionnaire asking for three members from each of the 15 business units of the company to respond. Relational data was obtained using sociometric techniques, by asking them to indicate the nature of their relationships with other business units. Non-relational data was collected using Likert-type scales.

Their conceptualisation of Social Capital, a la Nahapiet and Ghoshal (1997), was along its three dimensions – structural, relational and cognitive. The first captured the centrality of a unit in a network, the second captured relational embeddedness as reflected in trust and trustworthiness, while the last dimension is embodied in a shared code or paradigm. The logical frame employed considered Structural Dimension (captured by social interaction ties) and the Cognitive Dimension (captured in Shared Vision) determining the Relational Dimension (captured by Trust and Trustworthiness) and all three affecting the extent of Resource Exchange and Combination affecting Value Creation as reflected in Product Innovations. While recognising that social capital could be defined at many levels - from individuals to societies - the authors restricted themselves to a business unit level.

In order to measure *social interaction*, the authors created two "sociomatrixes" from data on the social interactions based on questions asking "With people of which units do you spend the most time together in social occasions" and "…the units which maintain close social relationships with your unit." Coding these two sociomatrixes yielded a standardised "between-ness index" for social interaction.

Inter-unit trust was measured similarly using two different questions about trust, yielding two relational matrixes of inter-unit trust and trustworthiness. Two other items in the questionnaire - "Our unit shares the same ambitions and vision with other units at work" and "People in our unit are enthusiastic about pursuing the collective goals and missions of the whole organization" – yielded a measure of '*shared vision*' using the scores on a Likert scale. *Resource exchange and combination* was measured in a similar manner. These were then used as independent variables in analysing value creation in the form of product innovations.

In a follow-up paper Tsai (2000) used largely the same construct to study how relationships between business units changed over time and network centrality emerged in a system.

Yli-Renko *et al.* (2001) studied the role of social capital in knowledge acquisition in key customer relationships. This acquisition is key for the survival and success of young tech firms and the authors test the role of social capital in facilitating it. Their dataset comprised 180 UK based young technology firms. Analogous to Tsai and Ghoshal (1998), their measures of social capital are three fold – social interaction, relationship quality and customer network ties – and in an approach largely similar to Tsai and Ghoshal (1998) they have specific questions in their survey leading to measures of these indicators.

Moran (2005) examines the effect of the manager's social capital on managerial performance. He compared two dimensions of social capital – the structural embeddedness or centrality of a manager's network of work relations and the relational embeddedness or quality of those relations. Based on a sample of 120 product and sales managers in a Fortune 100 pharmaceutical firm, he finds that while both elements of social capital influence managerial performance, they do so in distinct ways. The former plays a stronger role in explaining more routine, execution-oriented tasks (managerial sales performance), whereas the latter plays a stronger role in explaining new, innovation-oriented tasks (managerial performance in product and process innovation). As opposed to the other studies discussed, here the unit of analysis is the individual, not a collective.

Moran's questionnaire showed that the number of key contacts a manager maintains is measured as the total number of unique direct ties reported (with a possible range of 0-12). Indirect ties represent the extent to which the manager's contacts know and interact with one another. To reduce the influence of the direct ties in this calculation, a proportional density measure is used. This index then includes the number of indirect ties as a proportion of all possible ties. An indirect tie is said to exist if respondents report relationship between any two of their contacts as closer than simply 'arm's-length', i.e. at least a score of 2 on a 5-point closeness scale. Thus, the higher the value of indirect ties, the greater the number of all possible ties that exist and, therefore, the redundancy of contacts. The lower the indirect ties, the less redundant the contacts, and more brokering opportunities become possible in the network.

Closeness is a common measure used in network analysis. Respondents are asked how close their relationship with each contact is (1 to 5 Likert-type scale, where 1 is 'distant: arm's-length' and 5 is 'very close') with emotional distance implied. *Closeness* takes the average level of closeness across a manager's key contacts.

Three Likert-type items comprise the scale for *relational trust*. Dimensions of interpersonal trust developed in research on trust (Cook and Wall (1980); Butler (1991)) include perceptions of honesty and truthfulness in exchange (Integrity), perceptions of competence in ongoing interactions (Competence), and alignment of goals and values (Predictability). These three items reflect well the nature of trust vis-a-vis social capital. After factor analysis confirmed the existence of a single factor (Relational trust), a scale was constructed with an acceptable alpha (alpha = 0.68).

Survey evidence used to develop measures of social capital are also used in areas like marketing. Kemper *et al* (2008) investigate the role of top management's social capital as a micro-level origin of four specialised marketing capabilities: pricing, product development, distribution, and marketing communication. The authors investigate the moderating effect of national culture on the link between social capital and marketing capability. They use survey data from 891 firms across four countries - China, Germany, Hong Kong, and the United States. The findings indicate that the elements of social capital - managerial tie utilisation, trust, and solidarity - are strong drivers of the four marketing capabilities. Managerial tie utilisation and solidarity tend to be more important when the power distance of national culture is low, collectivism is high, and uncertainty avoidance is low. The effect of trust, however, is not subject to national cultural variations. From a managerial perspective, this emphasises the strong role and responsibility of top management team members (including marketing managers), in building organisation-level marketing capabilities.

Robert *et al* (2008) seek to understand the impact of social capital on knowledge integration and performance within digitally enabled teams. They studied 46 teams who had <u>a history and a future working together</u>. All three dimensions of their social capital (structural, relational, and cognitive) were measured prior to the team performing two tasks in a controlled setting, one face-to-face and the other through a lean digital network. Structural and cognitive capital were more important to knowledge integration when teams communicated through lean digital networks than when they communicated face-to-face. Relational capital directly impacted knowledge integration equally, regardless of the communication media used by the team. Knowledge integration, in turn, impacted team decision quality, suggesting that social capital influences team performance in part by increasing a team's ability to integrate knowledge. These results suggest that team history may be necessary but not sufficient for teams to overcome the problems faced while using lean digital networks as a communication environment. However, team history may present a window of opportunity for social capital to develop, which in turn allows teams to perform just as well in either communication environment.

Kirsch *et al.* (2010) look at the role of social capital and the optimum control used in learning organisations. Organisations are increasingly relying on team-based structures as work becomes more complex, non-routine, and knowledge intensive. Teams comprised of individuals with diverse skills and expertise may be well suited to perform such work. However, as teams become more prevalent, organisations may struggle with ways to exercise control. *Formal controls*, with their focus on pre-specified rules, performance targets, and hierarchical relationships, may be less effective in a teamwork environment than *clan control*, in which work-related behaviour is motivated by shared norms and values, as well as a common vision, and individuals attempt to be accepted as 'regular' members of a team.

They adopt the view that clan control is a 'people' or social process and argue that social capital, is a missing, key antecedent of clan control. In particular, they argue that the existence of social capital enables team members and project managers to facilitate clan control within a team, i.e., team-based clan control. A model is developed and hypotheses are tested using survey data collected from 95 teams working on information systems projects. The results suggest that social capital assets are associated with team-based clan control.

While work on social capital continues to progress in the business area, the chosen measurement technique is almost always a survey based with pointed questions investigating the components of social capital that the researchers seek to measure. Given the subjective nature of the concept, qualitative survey seems to be the only way of measuring and approximating the concept in an intra-organisational or inter-organisational setting.

Before closing this section, it is important to note that the notion of social capital has also featured prominently as a key determinant of success in the business context in connection with family business (Sirmon and Hitt, 2003; Arregle *et al,*. 2007 Pearson *et al.,* 2008;Sorenson *et al.*, 2009) as well as with entrepreneurship (Davidson and Honig, 2003; Anderson *et al.*, 2007). However, these branches of the literature have so far laid less emphasis on the measurement issue.

4. Towards a usable definition and measure of social capital in the present context

a) *Definition*

The concept of social capital has been widely applied and analysed in various disciplines of social sciences, including organisational studies. In this concept, social capital is seen as a resource which lies in social relations, ties or connections in a social or network structure embedded with certain elements such as trust, share norms, cooperation etc. As some scholars have observed, it consists of certain important characteristics of physical and human capital. Its nature ranges from pure private good to merit and public good, depending on the level of beneficiaries and exclusivity.

With respect to definitions of the concept of social capital, what is observed is that there are some very basic definitions and those that have subsequently come up have roots in these basic forms. <u>The subsequent definitions operationalised the concept fitting into their analysis</u>. If one is presented with an integrated view of the definitions across disciplines and studies, one would see certain common elements. Most of the definitions explicitly or implicitly refer to a social or network structure where the social capital inheres. It can be a family, ethnic or religious communities, acquaintances, social or purposive groups / associations / organisations or business organisations. Also, most of the definitions refer to social relations, ties or connections in these structures that facilitate access to resources of social capital. They also refer both explicitly and implicitly to the critical elements - trust, shared norms / values, reciprocity, cooperation - which would facilitate coordinated action to realise the value of social capital and benefit from it. Some of the advantages they refer to are information sharing, influence, solidarity, and coordinated action. Also, they influence market relations and improve the ability of the market to function efficiently, e.g. clearing information asymmetry moral hazards and adverse selection (incentive problem) and minimizing transaction costs. Hence, most of the definitions are intended to refer to intertwined relations between <u>social relationships and market relations or economic activities and the resultant outcomes.</u>

Although most of the definitions refer explicitly or implicitly all the above mentioned aspects, the differences one can see is are in their focus - whether it is substance, source or effect of social capital; accordingly the wording of the definition has differed. Secondly, some of the definitions are focused on internal relations (i.e. bonding), some on external or inter-group relations (i.e. bridging or linking) and others on both internal and external relations. However, the integration of internal and external relations within and across social, economic or business organisations in a broader horizontal as well as vertical network structure would be more advantageous. What it means for the business organisation or firm is that inter-unit/division/firm and intra-unit / division / firm relations in terms of bonding and bridging type of relations are critical.

In all, the definitions of social capital across disciplines have a common thread: they understand it as social relations/networks that are available to and developed by the individual/group/firm in their living/operational societal structure for their individual/mutual benefits. The differentiating aspect is the areas of focus — substances, sources and effects of social capital. ‘Trust’, ‘Norms’ and ‘Reciprocity’ are identified as elements of social capital. On the other hand, the dimensional aspects of social capital are also recognised. They are ‘cognitive’, ‘structural’ and ‘relational’. The social relations can be ‘horizontal’ and ‘vertical’. In organisational studies, the benefits of social capital are identified as ‘minimising the transactions costs of economy or a business firm throughout its supply chain’, ‘information sharing’, ‘enforcing contractual obligations’ and ‘coping with moral hazard and incentive problem’.

The operationalisation of the concept of social capital for any level of study, particularly firm level is assumed to be slightly difficult given the abstract nature of social capital. This is further accentuated by the presence of *individual social capital* cutting into the benefits of *collective social capital* in a hierarchical structure with unequal endowment of social capital. A convincing method of measuring social capital is the survey method. In this regard, ‘social network analysis’ and ‘sociometry’ seem to offer a way out. For measurement at the firm level, the sites / sources of social capital need to be identified — the role of the management, the marketing division, the firm’s supply chain, the relationship with community stakeholders etc. These can be identified in the internal and external activities of the firm.

b) *Measurements*

The survey of literature in the previous section demonstrates the range of measurement approaches used to quantify the inherently qualitative concept of social capital. Almost without exception, however, a survey of some kind lay at the heart of the exercise – whether it is a massive cross-country level survey like the World Values Survey, or surveys conducted by individual researchers within their selected sub-national groups and communities, or, in the case of business research, among firms or divisions of firms. If there is anything that can be asserted about the optimum exercise to estimate social capital in a large conglomerate without fear of reasonable objection, then, it is that the measurement technique adopted in the present exercise has to have a survey at its core.

This is, however, putting the cart before the horse in some sense. While there is likely to be near consensus about the necessity of a survey for our purposes, whom to survey and what to ask in that survey are fundamental and far harder questions to answer, for they essentially relate to the most relevant definition of social capital for our purposes. This, in turn, needs to stem from the purpose of the entire exercise as laid down in the first section - which includes defining and measuring the value social capital as an emergent feature within the Tata conglomerate as a usable and productive resource both in the individual companies as well as in the network of companies and further, in the broader stakeholder circle of the Tata group. It is in view of this, as well as in light of the definition of social capital decided to be the most useful for this exercise in the previous sub-section, that the measurement technique of social capital – and indeed the queries and subjects of the survey –needs to be decided.

Coverage – Respondents: In that spirit, it is pertinent to recall the (at least) three kinds of social capital identified that are likely to be active and impactful simultaneously for a conglomerate like the Tata Group – a) the intra-firm social capital; (b) the intra-group social capital; (c) the group-level social capital. This implies that at least three levels of surveys need to be designed to assess these, among managers at the divisional levels, among CXOs of Tata companies and among group-level strategists and carefully identified external stakeholders of the Tata group to assess the group-level social capital.

Coverage – Topics: What questions ought to be included in these surveys? This decision requires the identification of the key elements of social capital, the strength of which the survey questionnaire should be designed to bring out. Scanning literature provides us with near consensus on a triad of measurable elements constituting social capital cutting across disciplines – the structural dimension (or group memberships); the relational dimension (or trust), and the cognitive dimension (or social norms/shared values). The measurement approach for social capital therefore can be summarised in Table 4.1 below along two axes – dimensions/aspects and levels.

Table 4.1: Measuring Social Capital for the Tata group

		Dimensions/Aspects		
Level		Structural/membership	Relational/trust	Cognitive/Norms
	Intra-firm			
	Intra-group/Inter-firm			
	Group level			

Coverage – Impact: Beyond the aspects of social capital itself, the survey needs to capture the likely areas in which social capital – overall as well as at each individual level – is to affect the Tata group in achieving its business and non-business objectives. While literature (particularly the strategy literature) has identified a few areas such as HR and marketing and intra- and inter-firm knowledge sharing as key areas affected by social capital, that is a general assessment that requires modification/customisation for the Tata group. Participating executives would be in a best position to comment upon business performance aspects for the group that is likely to be affected by social capital. This list as well as the strength of each element in it can be both created and measured in a carefully-designed survey.

Coverage – Frequency: While academic research is content with doing the measurement exercise only once to make its argument, for this exercise to be meaningful for a business entity it ought to be monitored on a fixed frequency basis. In other words, the survey needs to be carried out not once, but repeatedly at a pre-determined frequency at least once a year, if not more frequently. The frequency depends on assumptions of pace of change of the underlying conditions and determinants of social capital as well as the link between social capital and the business outcomes being considered. The selected frequency ought to take into account the speed with which innovations in information sharing and relationship brought in by the internet and social media revolutions alter the ground relationships faster than ever before. Repeated surveys are also needed to validate assumptions made in prior surveys.

Analysis: The analysis of the survey data should involve correlating the findings from the survey with business indicators of relevant aspects of performance to understand/measure the nature and strength of the relationships between specific aspects of social capital and business outcomes.

5. Way Forward

The current paper has attempted a review of the extant literature on social capital with the explicit purpose of understanding various definitions and measurement methodologies of the concept used. The goal of the exercise has been to zero down on the desirable characteristics of the definitions and measurement approaches that should inform the next steps in the exercise, if not to identify and settle upon a unique optimum definition and measurement approach itself.

It is, however, important to bear in mind that social capital is inherently context-dependent and while the international socio-economic and development literature has considered the concept in various settings ranging from developed societies to communities in Asia and Africa, the management/business literature is largely restricted to the developed country and MNC setting. For the purposes of this exercise, it is important to focus on both the national-to-global context as well as the business entity setting in our choice of definitions and measurement methods. While the latter has been addressed in the current paper, the former needs a more detailed understanding, which is the subject matter of the second paper in the planned trilogy.

While defining/measuring social capital from a corporate perspective in the Indian-origin-MNC setting may be hard to come by, explorations into the broader socio-economic implications of the concept in the Indian setting have been attempted in the literature. A detailed review and analysis of that literature must wait till the next paper, but a bird's eye view synopsis of a few selected papers may not be out of place here, if only to take note of the issues and challenges that lay in carrying out the exercise. The findings of the Agora Project funded by Swedish agency SAREC at the turn of the century, bringing together JN, and Utkal University in India, Witswatersrand University of South Africa, and Uppsala University of Sweden, to study the impact of social capital on democracy and environmental protest in India and South Africa, may be of particular relevance despite, as noted before, their non-business context.

Sudha Pai's work (Pai (2001)) investigating social capital in panchayats of two districts of UP – Meerut and Azamgarh – points to the relevance of social identities and segmentation – caste/class divisions – as a key contextual determination for the emergence and strength of social capital. Jayal (2001), through field-work studying social capital in two villages in Uttaranchal, interestingly argues that formal democratic structures like panchayati raj designed to strengthen grass-root democracy may actually be reducing, rather than enhancing traditional social capital. Indeed, Putnam's seminal *Bowling Alone* is set in the post-1960s USA, with its formal democratic institutions firmly in place. Mohapatra (2001) measures the 'connectedness' or strength of social capital by studying the memory or recall of history in a single village – Talajanga – in the Puri District of Odisha. Serra (2001) focuses on the methodological challenges for measuring social capital at the state level in India and identifies three major challenges – identifying state level measures of social capital, alternative measures of state development and establishing the statistical connect between the two – i.e. social capital and state-level development indicators.

All these questions and measurement challenges should inform our present inquiry. And yet, given that the literature on social capital in India is mostly, if not exclusively, focused on the rural sector while the corporate workplace is primarily urban, the extent of their validity in the context of relevance becomes an important question to consider. Does corporate India play by a different set of rules? Is it because social identities are erased or weakened through education and employment, or is that corporate India is so homogeneously upper caste that these factors simply cease to matter? Studies elsewhere (Granovetter (2010) for instance) have found evidence of community-level ties affecting business decisions and inter-firm relationships among various business communities. Other research (e.g. Allen *et al.* (2012)) has emphasised the importance of informal finance in the Indian corporate setting. Bhagavatula *et al* (2010) have discussed the role of social networks in Indian handloom industry.

Do informal networks extend to hiring decisions? What are the group identities that matter in corporate India – the 'old boys' club' based on educational alumni networks, linguistic and regional links.

Answering or even hypothesising based on these questions requires a focused review of the literature expanding the borders of the social capital literature and connecting it to various related concepts in the Indian context in order to develop the best definition and measurement tool for the purpose of this enquiry.

The current paper has taken a sweep at the wide-ranging definitions and characterisations of social capital, spanning multiple disciplines from sociology to management. It has sought to review measurement attempts of social capital in the literature and assess its implications for performance of enterprises and conglomerates. Operationalising it and investing in it for a particular firm or business group will, however, first require customising the notion to its relevant context and next, carrying out the empirical estimation exercises, ideally at regular intervals. The efforts involved hold the best promise of winning the business battles both today and in the near future.

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