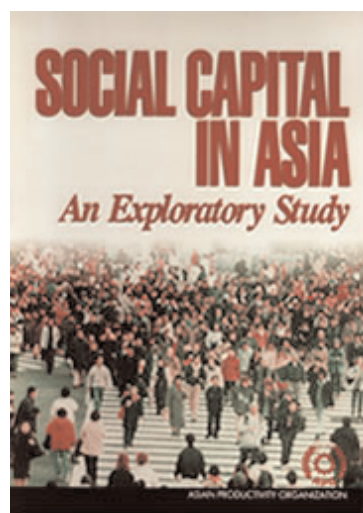

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**Report on the APO Basic Research XII on Social
Capital and Its Impact on Productivity [Phase I].
(03-RP-GE-SUV-02-B/ 04-RP-GE-SUV-12-B)**

Edited by Prof. Tan Wee-Liang



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FOREWORD

In 2003, the APO embarked on a Basic Research Project to understand the role of social capital in Asia. Social capital has been found to make a critical difference in the economic and social development of nations. Developed countries in the West are known to be resilient in the midst of crises. Social capital in the West manifests itself in specific institutions but do such institutions exist in Asia, and how do they affect businesses, transactions, and business transformations?

As a basic research project, the work was carried out in phases to investigate issues of fundamental and strategic importance to productivity improvement. In the first phase of this research, the intention was to examine the concept of social capital as it applies in Asia, define its framework, attempt to measure trust and social norms, and study its linkages with productivity and economic growth.

The event brought together a panel of distinguished experts from India, Japan, the Republic of Korea, the Republic of China, and Singapore to examine social capital and productivity. Professor Heon Deok Yoon from the Republic of Korea acted as the chief expert leading the team in its investigations of

- Dimensions and sources of social capital in Asia
- Benefits and costs of social capital
- Impacts of social capital on productivity

In phase I of the research project, the study team learned that all three dimensions of norms, networks, and trust could be found in the participating countries and that:

1. Social capital has proven impacts on productivity improvement.
2. The impact of social capital on productivity improvement is only “speculative,” although there was a consensus that a high level of social capital would be linked to high productivity.
3. Income, education level, firm size/stage of growth, etc. affect the level of social capital.
4. Different stages of economic and social development result in different levels of social capital.

Adverse effects of social capital were also found. For example, strong group bonds can exclude outsiders and create an undue focus on the group’s needs to the detriment of the broader group. Strong group norms and sanctions may also stifle individual expression and initiative.

This volume is a compilation of the reports from the first phase of this Basic Research Project. The APO greatly appreciates the efforts of Professor Tan Wee-Liang in editing this volume. We hope that the contents will provide useful information on the role of social capital in Asia to readers working in diverse fields. These are preliminary findings as the project is continuing in 2006 in its second phase.

Shigeo Takenaka
Secretary-General

Tokyo
April 2006

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RESEARCH OVERVIEW

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BACKGROUND

Can firms in Asia achieve world-class competitiveness by adopting Western models of productivity improvement? What are the problems which Asian companies face in adopting Western models? Are there any models which are unique to Asian economies?

Western, especially Anglo-Saxon, business models have long been held up as role models for businesses in non-Western economies. The pressure to follow the Western models has become higher, particularly since the late 1990s when firms in non-Western economies faced drastic and discontinuous environmental changes.

We understand that the institutional context in Western and non-Western economies, specifically Asian, are quite different. An institutional context constrains or affects the actions of organizations by determining and signaling which actions of these organizations are acceptable and supportable. These constraints include both formal (e.g., legal, political, and economic rules and contracts) and informal constraints (e.g., conventions and codes of behavior, which are embedded in the culture and ideology). Since these informal and formal institutions differ across different economies, it is difficult to expect Western models in Asian economies to operate as effectively and efficiently as they do in Western economies.

A solution to this problem may be to first westernize the institutional contexts and then change the organizations. However, changing institutions takes a long time. Since business environment is constantly changing, firms in Asian economies cannot wait for the changes to be completed especially when it takes much longer to change informal institutions than formal ones. Furthermore, not only does it take longer to change informal institutions, it is also questionable whether westernizing institutions is desirable.

Finally, even if it may be possible to change both formal and informal institutions without serious side-effects, Asian firms will never be able to achieve competitive advantages over Western firms by simply adopting their models for productivity improvement. This is because for a long time Western firms have developed certain social capital required by their institutions and while Asian firms make every effort to develop their social capital to match the levels in the West, the Western firms will further strengthen or upgrade their social capital, thus engaging Asian firms in an endless game of “catch-up.” Productivity is indispensable in order for Asian firms to gain a competitive edge over the Western model, thus they have to identify the nature of one’s own social capital and work on it.

The purpose of this research is to explore linkages between productivity and social capital, which would necessarily require greater understanding of social capital and productivity improvements. The research attempts to study various dimensions of social capital in different organizations and identify the dimensions of social capital that are relevant in participating countries.

DIMENSIONS AND CONCEPT OF SOCIAL CAPITAL

The concept of social capital has become increasingly popular in a wide range of social science disciplines. A growing number of sociologists, political scientists, and economists have invoked the concept of social capital in their search for answers to questions that they have confronted their own fields. Social capital — roughly understood to be the features of the structure of social relations that facilitate action — has been applied in the study of families and youth behavioral problems, schooling and education, public health, community life, democracy and governance, economic development, and general problems of collective action.

Robert Putnam defines social capital as “features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions”. In order to further develop social capital as an analytic tool, the contribution of “capital” to the concept must be clarified. Trust, norms, and networks are certainly social elements. But why should these “features of social organization” be considered as capital? And should they be considered the same type of capital?

In order to answer these questions, we draw a distinction between social capital resources and capital goods. Social capital resources here refer to the social ties of a network. These resources are recognized by individuals as information channels and generalized social support. In contrast, capital goods, as defined by economic theory, are reproducible factors of production that reduce the unit cost of production for tradable final goods of consumption.

As tacit or recognized claims on the behavior of others in one's network, norms are the main form of capital goods in which social capital resources can be invested. Norms can be relied upon, just as machines on a factory floor, to help produce individual or collective goods. Like machines, norms can break down. But because they can be repaired with further investment of social capital resources, norms are rightly regarded by individuals in the same network as fixed factors of production. Norms should not be elevated to the status of social capital resources because they are specific to some subset of production possibilities (even though they can have unintended consequences for other production processes beyond foregone opportunity costs). The information channels and social support that reside in social network ties are substantially more fungible than the norms that constitute capital goods.

Because all these capital goods can, in theory, increase learning by lowering its cost, liquid financial capital resources and social capital resources should be seen as substitutes rather than complementary to each other.

The concept of social capital proves to be a powerful factor explaining the actors' relative success in the accumulation of other kinds of resources, and this is analyzed at several levels of interaction:

- Between individuals, social capital has been found to influence career success (Burt, 1992; Gabbay & Zuckerman, 1998; Podolny & Baron, 1997), and executive compensation (Belliveau, O'Reilly, & Wade, 1996; Burt, 1997a). In labor markets, social capital, particularly in the form of weak ties, has been shown to be important in helping workers find jobs (Granovetter, 1973, 1995; Lin & Dumin, 1996; Lin, Ensel & Vaughn, 1981) and in creating a richer pool of recruits for firms (Fernandez, Castilla & Moore, 2000).
- Within and between subunits, social capital facilitates interunit resource

exchange and product innovation (Gabbay & Zuckerman, 1998; Hansen, 1998; Tsai & Ghoshal, 1998), the creation of intellectual capital (Hargadon & Sutton, 1997; Nahapiet & Ghoshal, 1998), and cross-functional team effectiveness (Rosenthal, 1996) and it also reduces turnover rates (Krackhardt & Hanson, 1993).

- Within and between firms, social capital reduces organizational dissolution rates (Pennings, Lee, & van Witteloostuijn, 1998), facilitates entrepreneurship (Chong & Gibbons, 1997) and the formation of start-up companies (Walker, Kogut, & Shan, 1997), and strengthens supplier relations (Asanuma, 1985; Baker, 1990; Dore, 1983; Gerlach, 1992; Helper, 1990; Smitka, 1991; Uzzi, 1997), regional production networks (Romo & Schwartz, 1995), as well as interfirm learning (Kraatz, 1998; *Strategic Management Journal*, 2000).

The breadth of the social capital concept reflects a primordial feature of social life, namely that social ties of one kind (e.g. friendship) can often be used for different purposes (e.g. moral and material support, work and non-work advice). Coleman (1988: 108) calls this the “appropriability” of social structure. It legitimizes a conceptual strategy of bringing a broad range of concepts – such as informal organization, trust, culture, social support, social exchange, social resources, social embeddedness, relational contracts, social networks, and interfirm networks – under one idea.

It is not obvious, however, that we gain more than we lose by folding all these various phenomena under an “umbrella concept” (Hirsch & Levin, 1999) of social capital. Such a move risks conflating disparate processes and their distinct antecedents and consequences. More fundamentally, it is inevitable that an object of research with such a wide scope should attract research from heterogeneous theoretical perspectives. Skeptics have therefore characterized the social capital concept as “a wonderfully elastic term,” (Lappe and Du Bois, 1997: 119), a notion that means “many things to many people” (Narayan and Pritchett, 1997:2), and takes on “a circus-tent quality” (De Souza Briggs, 1997: 111). According to Hirsch and Levin (1999), social capital is still in the “emerging excitement” phase of the life-cycle typical of an umbrella concept.

SOURCES OF SOCIAL CAPITAL

Beyond the basic consensus that social capital is derived from social relations, there is considerable disagreement and confusion concerning the specific aspects of social relations that create social capital. Much social capital research can be divided into a branch which locates the source of social capital in the formal structure of the ties that make up the social network, and another branch which focuses on the content of those ties. The formal structure of the network of social ties has been the focus of network-theoretic approaches to social capital, and this area of research has revealed the important effects of the structure’s features such as closure and structural holes. In contrast, research in other disciplines has emphasized the role of tie content — most commonly shared norms and beliefs, but also abilities — in determining the social capital embodied in a social network.

The relative roles of network structure and tie content are simultaneously a theoretical and an empirical question. Theoretically, much network research in sociology has worked towards Simmel’s vision of a formalistic sociology which could reveal how the structure of social interaction generates its own content (Wellman, 1988: 23). It has

thus downplayed the importance of the content of network ties (DiMaggio, 1992; Emirbayer & Goodwin, 1994; Powell & Smith-Doerr, 1994). In part, this orientation can be justified by reference to the notion of “embeddedness”: as appropriated from Polanyi (1957) by Granovetter (1985), market and hierarchical relations are typically embedded in social relations, and to that extent all relations are essentially social and their distinctive content is thus secondary to their common social nature. This orientation can also find support in the empirical fact of the “appropriability” of social network ties: as we noted in the Introduction above, ties of one kind can be used for different purposes, and to this extent the specific content of ties can reasonably be bracketed.

Empirically, however, there are limits to this appropriability. Burt (1997b) and Podolny and Baron (1997), for example, find that depending on the content of the ties (specifically, friendship vs. work ties), network ties have very different effects on managers’ promotion rates. And theoretically, there is a long tradition of scholarship arguing that economic and authority relations have been progressively differentiated and disembedded and to that extent engender distinct dynamics.

BENEFITS AND COSTS OF SOCIAL CAPITAL

While some commentators have argued for a conceptualization of social capital that identifies it as a resource with only positive outcomes, this position is increasingly seen as too normative. First, investments in social capital, like investments in physical capital, are not reversible or convertible without costs, and therefore unbalanced investment or over-investment in social capital can transform a potentially productive asset into a constraint and a liability (Gabbay & Leenders, 1999; Garguilo and Bernassi, 1999; Hansen, Podolny & Pfeffer, 1999). Second, even when social capital is beneficial to a focal actor, it can have negative consequences for the broader aggregates of which that actor is a part: when the lens of social capital is used to analyze complex organizations, these multilevel issues are inescapable.

Benefits of Social Capital

We first consider each of these three benefits for focal actors as well as positive externalities engendered for the broader aggregate. For the focal actor, social capital facilitates access to broader sources of information and improves information’s quality, relevance, and timeliness. Coleman (1988) illustrates this benefit with the example of a social scientist catching up on the latest research in related fields through everyday interaction with colleagues. Network research has shown that network ties help actors gain access to information about job opportunities (Boxman, De Graaf, & Flap, 1991; Burt, 1992; Fernandez & Weinberg, 1997; Granovetter, 1973; Lin, Ensel, & Vaughn, 1981; Meyerson, 1994), and about innovations (Burt, 1987; Coleman, Katz, & Menzel, 1966; Rogers, 1995). Research on ethnic entrepreneurs and ethnic firms (as reviewed in Portes and Sensenbrenner, 1993) has also shown that the information provided by community ties is critical to the mobility opportunities of newly arrived immigrants. The informational benefits of social capital have also been studied in interorganizational research. Powell and Smith-Doerr (1994) and Podolny and Page (1998) review the research showing that interorganizational networks have a considerable benefit in helping firms acquire new skills and knowledge. Uzzi (1997) found that social embeddedness allows firms to exchange fine-grained information.

In some cases, information benefits at the focal-group level can lead to positive externalities for the broader aggregate. In Burt’s (1997a) view, social capital enables

brokering activities that bring information from other actors to the focal actor; to the extent that this brokering activity relies on a reciprocal outflow of information, the entire network will benefit from the diffusion of information. In his study of apparel industry, Uzzi (1997) finds that transfer of fine-grained information among firms helps them all better to forecast future demands and anticipate customer preferences. Nebus (1998) argues that social capital between independent units within a multinational corporation facilitates the transfer of information, and Hansen (1999) shows that weak ties facilitate the cost-effective search by product development teams for new information and that strong ties facilitate the cost-effective transfer of complex information and tacit knowledge — all of which would, *ceteris paribus*, have considerable positive benefit for the firm as a whole.

Influence, control, and power constitute a second kind of benefit of social capital. In Coleman's example of the "Senate Club," some senators are more influential than others because they have built up a set of obligations from other senators and they can use those credits to get legislation passed (Coleman, 1988: S102). Such power benefits allow the focal actors to get things done and achieve their goals. Burt (1992) focuses on power benefits that accrue to entrepreneurs who bridge disconnected groups. Because these entrepreneurs have a say in whose interests are served by the bridge, they can negotiate terms favorable to these interests and thus become powerful actors. In a related study, Burt (1997a) argues that managers spanning structural holes are more powerful because they can control the form of projects that connect other groups.

These power benefits can also have positive externalities for the broader aggregate, at least under some circumstances. Power helps get things done. Because some of its members have accrued relatively more power and can thus play a leadership role, the Senate is arguably a more effective legislative body than it might be otherwise.

The third benefit of social capital is solidarity. Strong social norms and beliefs, associated with a high degree of closure of the social network, encourage compliance with local rules and customs, and reduce the need for formal controls. The effectiveness of rotating-credit associations (Geertz, 1962) and the low dropout rate among Catholic-school students (Coleman, 1988) illustrate these solidarity benefits of closure and trust. In the organizational culture literature, we find similar phenomena in organizations with strong culture and solidarity. Ouchi (1980) argues that clan-type organizations with strong shared norms benefit from lower monitoring costs and higher commitment. Nelson's (1989) study of intergroup ties in organizations supports this interpretation. He shows that frequent interactions between groups permit faster dispute resolution and prevents the accumulation of grievances and grudges. Krackhardt and Hanson (1993) point out that the trust network can transmit more sensitive and richer information than other types of networks because of the solidarity it engenders.

Important forms of solidarity can also emerge from weak ties, or at least weak ties that bridge otherwise unconnected groups. Granovetter (1982) discusses a number of studies of larger organizations that needed to integrate subgroups with strong internal ties — schools and strong cliques and racial subgroups (Karweit, Hansell, & Ricks, 1979), hospitals with strong departmental structures (Blau, 1980), community movements built around cohesive cores (Steinberg, 1980). In each case, Granovetter argues, even weak ties between the subunits added considerably to the degree of integration of the larger aggregate.

For the broader aggregate, the positive externalities associated with a collective actor's internal solidarity include civic engagement at the societal level and organizational citizenship behavior at the organizational level. Putnam articulates these externalities in

his analysis of the sources of civic engagement: “Internally, associations instill in their members habits of cooperation, solidarity, and public-spiritedness” (Putnam, 1993: 89-90) and these habits in turn spill over into members’ involvement with other associations and more broadly into a higher level of generalized trust. In business organizations, we might expect people working in more highly cohesive subunits to be less absorbed by parochial conflicts and therefore more attentive to the firm’s superordinate goals.

Costs of Social Capital

Social capital has costs which can sometimes outweigh its benefits for the focal actor (Leana & Van Buren, 1999; Hansen, Podolny, & Pfeffer, 1999; Gabbay and Leenders, 1999), and sometimes benefits for the focal actor create costs for other actors (Portes and Landolt, 1996). However, while a large body of research has focused on the benefits of social capital, the literature on its costs is much sparser. This section explores the nature of these costs, using the same analytical structure as the previous section’s discussion of benefits. We distinguish the costs for the focal actors and the costs of negative externalities for the broader aggregate.

Let us begin with the costs for focal actors, taking first social capital’s information costs. Building social capital requires considerable investment in establishing and maintaining relationships, and as with any expensive investment, social capital investment may not be cost-efficient in certain situations. Hansen’s (1998) research on social capital’s information benefits shows that project teams with strong ties with other units often took longer to complete their tasks than those with weaker ties. Though these strong ties had information benefits, they were too costly to maintain. He argues that weak ties are more effective than strong, not (or not only) because they provide access to nonredundant information (as Granovetter would argue), but because they are less costly to maintain than strong ones.

Second, the power benefits of social capital may in some cases trade off against its information benefits. Ahuja (1998) argues that while an actor gains information benefits by having many contacts who themselves have many ties with many other contacts, in such a situation the focal actors’ direct contacts will be less dependent on the focal actor than if these direct contacts had few other contacts.

Third, the solidarity benefits of social capital may backfire for the focal actor in several ways. Strong solidarity with in-group members may overembed the actor in the relationship. Such overembeddedness reduces the flow of new ideas into the group, resulting in parochialism and inertia (Gargiulo and Benassi, 1999). As Powell and Smith-Doerr put it, “the ties that bind may also turn into ties that blind” (1994: 393). Kern (1998) makes a similar argument about the current state of German industry. He notes that there is too much inter-firm trust in Germany today to support radical innovation — firms are too loyal to established suppliers, and are thus slow to seek out and adopt more novel ideas. Waldinger (1995) makes a parallel argument in the context of ethnic communities. In a similar vein, Portes (1998) notes that social capital may create free-riding problems and hinder entrepreneurship. Strong norms in a community may dictate the sharing of resources among extended family members, which may in turn reduce the incentives for entrepreneurial activity and thus slow the accumulation of capital. This argument is reflected in Uzzi’s finding that, in overembedded relationships, “feelings of obligation and friendship may be so great between transactors that a firm becomes a ‘relief organization’ for the other firms in its network” (1997: 59).

For the broader aggregate, the social capital of the focal group presents real risk of negative externalities. In Coleman’s example, the close network of ties among children

is bad for the broader community, because it weakens control by adults (parents, teachers, etc.) and increases dropout rates. More generally, we can identify costs to the broader aggregate associated with the information, influence, and solidarity effects of a focal actor's social capital.

Brokering for informational benefits by individuals or lower-level units may lead to a tragedy of the commons for the broader aggregate. Gabbay and Zuckerman (1998) analyze the networks of R&D scientists and suggest that in units whose effectiveness depend on the broad sharing of information, excessive brokering by individual scientists may hamper innovation. Even if the broker's career is enhanced by their strategic location bridging holes in the social network, there is no guarantee that this leads to the inflow of the information most valuable to the subunit, let alone an outflow of the information that is most valuable to the broader organization.

The risks of negative externalities associated with the focal actors' search for the influence benefits of social capital are all too obvious. While some power differentiation in the Senate Club may be effective, even small deviations from that optimal configuration can lead to gridlock or diversion.

Finally, solidarity benefits, too, for the lower-level can have downsides for the aggregate. Strong identification with the focal group may contribute to the fragmentation of broader whole. Brass, Butterfield, and Skaggs (1998) show how social networks can promote unethical behavior and conspiracies. Social capital's solidarity effects can split the broader aggregate into "warring factions or degenerate into congeries of rent-seeking 'special interests'" (Foley & Edwards, 1996: 39). De Souza Briggs (1999) describes such a case in conflicts over priorities in a community-development corporation. Portes (1998) points out that by bringing together dissatisfied actors, such associational activity in civil society may deepen social cleavages.

In general, summing across information, influence, and solidarity effects, the potential negative externalities of social capital are considerable. Network contacts share (to a varying degree) obligations to help each other, and in particular to help each other in the collective rivalry of one network against others. Such rivalry can have salutary effects for the broader aggregate — stimulating effort, enterprise, etc. — but also carry the risk of reinforced domination and the opportunity cost of wasted effort and missed opportunities for collaboration. Moreover, given a prior unequal distribution of other assets, the use of its social capital by the dominant group can considerably enhance its dominance by helping to exclude subordinate categories from the information, influence and solidarity benefits it has already accrued. There is no invisible hand that assures that the use of social capital resources in competition between actors will generate an optimal outcome for the broader aggregate. Critics of the concept of social capital (such as Fine, 1999) are thus on firm ground in highlighting the risks of policies designed simply (and thus simply-mindedly) to strengthen social capital (see also Edwards, 1999).

THE MEASUREMENT OF SOCIAL CAPITAL

Social capital has been measured in a number of innovative ways, though for a number of reasons obtaining a single "true" measure is probably not possible, or perhaps even desirable. First, the most comprehensive definitions of social capital are multidimensional, incorporating different levels and units of analysis. Second, any attempt to measure the properties of inherently ambiguous concepts such as "trust", "network" and "organization" is correspondingly problematic. Third, few long-standing surveys were designed to measure "social capital", leaving contemporary researchers to compile indexes

from a range of approximate items, such as measures of trust in government, voting trends, memberships in civic organizations, hours spent volunteering. New surveys currently being tested will hopefully produce more direct and accurate indicators. Measuring social capital may be difficult, but it is not impossible, and several excellent studies have identified useful proxies for social capital, using different types and combinations of qualitative, comparative and quantitative research methodologies.

Quantitative Studies

Knack and Keefer (1997) use indicators of trust and civic norms from the World Values Survey (WVS) for a sample of 29 market economies. They use these measures as proxies for the strength of civic associations in order to test two different propositions on the effects of social capital on economic growth, the "Olson effects" (associations stifle growth through rent-seeking) and "Putnam effects" (associations facilitate growth by increasing trust). Inglehart (1997) has done the most extensive work on the implications of the WVS.

Narayan and Pritchett (1997) construct a measure of social capital in rural Tanzania, using data from the Tanzania Social Capital and Poverty Survey (SCPS). This large-scale survey asked individuals about the extent and characteristics of their associational activity, and their trust in various institutions and individuals. They match this measure of social capital with data on household income in the same villages (both from the SCPS and from an earlier household survey, the Human Resources Development Survey). They find that village-level social capital raises household incomes.

Temple and Johnson (1998), extending the earlier work of Adelman and Morris (1967), use ethnic diversity, social mobility, and the prevalence of telephone services in several sub-Saharan African countries as proxies for the density of social networks. They combine several related items into an index of "social capability", and show that this can explain significant amounts of variation in national economic growth rates.

Comparative Studies

In his research comparing North and South Italy, Putnam (1993) examines social capital in terms of the degree of civic involvement, as measured by voter turnout, newspaper readership, membership in choral societies and football clubs, and confidence in public institutions. Northern Italy, where all these indicators are higher, shows significantly improved rates of governance, institutional performance, and development when other orthodox factors were controlled for. His recent work on the United States (Putnam 1995, 1998) uses a similar approach, combining data from both academic and commercial sources to show a persistent long-term decline in America's stock of social capital. Putnam validates data from various sources against the findings of the General Social Survey, widely recognized as one of the most reliable surveys of American social life.

Portes (1995) and Light and Karageorgis (1994) examine the economic well-being of different immigrant communities to the United States. They show that certain groups (e.g. Koreans in Los Angeles, Chinese in San Francisco) do better than others (e.g. Mexicans in San Diego, Dominicans in New York) because of the social structure of the communities into which new immigrants arrive. Successful communities are able to offer new arrivals help with securing informal sources of credit, insurance, child support, English language training, and job referrals. Less successful communities display a short-term commitment to their host country, and are less able to provide their members with important services.

Massey and Espinosa (1997) examine Mexican immigration to the US. They show that policies such as NAFTA, which advocate the free flow of goods and services across national borders, also increase the flow of people, since goods and services are produced, distributed, and consumed by people. Using survey and interview data, they show that a theory of social capital is a far better predictor of where people will migrate, in what numbers, and for what reasons, than are neo-classical and human capital theories. These results are then used as the basis for proposing a number of innovative policy measures designed to produce a fairer and more effective management of Mexican immigration to the US.

Qualitative Studies

Portes and Sensenbrenner (1993) examine what happens to immigrant communities when some of their members succeed economically, and wish to leave the community. Their interviews reveal the pressures that strong community ties can place on members; so strong are these ties that some members have Anglicized their names to free themselves of the obligations associated with community membership. Gold (1995) provides evidence that Jewish communities in Los Angeles manage to maintain both the integrity of their community structure and participate more fully in mainstream economic life.

Fernandez-Kelley (1996) interviewed and observed young girls in urban ghetto communities in Baltimore, and discovered that normative pressures to leave school, have a baby while still a teenager, and reject formal employment were very powerful. Surrounded on a daily basis by violence, unemployment, and drug addicts, the girls' only way of establishing their identity and status was through their bodies. Anderson (1995) studied the role of "old heads," long-term elderly members of the poor urban African-American community, as sources of social capital. "Old heads" once provided wisdom and guidance to the young, but their advice and input today is being increasingly ignored as respect for the elderly declines, and as the community continues to fragment economically.

Heller (1996) examines the case of the south Indian state of Kerala, where literacy rates, longevity, and infant mortality rates have long been the most favorable on the sub-continent. Tracing the history of state-society relations in Kerala, Heller shows how the state has played a crucial role in bringing about these results, by creating the conditions that enabled subordinate social groups to organize their collective interest. However, the state in Kerala has also been hostile to foreign investment and the maintenance of infrastructure, which has made it difficult for a healthy and well-educated population to transfer its human capital into greater economic prosperity.

Measurement Tools

Led by a growing body of evidence which shows social capital as a potential contributor to economic growth and sustainable development, increasing efforts are being made to identify methods and tools relevant to social capital.

This is especially challenging because social capital is comprised of concepts such as "trust", "community" and "networks" which are difficult to quantify. The challenge is increased when one considers that the quest is to measure not just the quantity but also the quality of social capital on a variety of scales.

Social capital researchers aim to identify methods and tools which can quantify and qualify social capital to inform policymakers and stakeholders to enable them to impact existing and to create new social capital which could benefit organizations and nations.

Few long-standing surveys were designed to measure “social capital”, leaving researchers to compile indexes from a range of approximate items, such as measures of trust in government, voting trends, memberships in civic organizations, hours spent volunteering. Surveys currently being tested will hopefully produce more direct and accurate indicators.

Methods

Measuring social capital may be difficult, but it is not impossible, and several excellent studies have identified useful proxies for social capital, using different types and combinations of qualitative, comparative and quantitative research methodologies (Woolcock and Narayan, 2000).

How we measure social capital depends on how we define it. The most comprehensive definitions of social capital are multidimensional, incorporating different levels and units of analysis. Trust, civic engagement, and community involvement are generally seen as ways to measure social capital. Depending on the definition of social capital and the context, some indicators may be more appropriate than others.

Once it has been decided which how social capital is to be measured, for example, by measuring civic engagement through household surveys, cultural factors may be taken into account in designing the survey instrument. Newspaper readership may be a better indicator of civic engagement in Italy (Putnam 1993) than in India because of the varying literacy rates.

The surveys must be designed so that the potential respondents do not feel stigmatized. Also, the respondents may be hesitant to be open if the interviewers are associated with a government agency that they do not trust.

Benchmarking Surveys

The World Values Survey has measured interpersonal trust in 22 countries by asking questions such as: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people? (Knack and Keefer 1997)

The Social Capital Initiative at the World Bank is currently funding 10 social capital projects which will help define and measure social capital, its evolution and its impact:

“The proposed analytical methods cover a wide range of qualitative and quantitative approaches. These include quantitative methods in formal research designs with use of control groups, econometric analyses calling on instrumental variables and principal component approaches, as well as case studies, qualitative and inductive method. A variety of approaches was a priority of the project selection process; it should help determine further the relative aptitude of different approaches at apprehending the nature and the determinants of social capital.” (Social Capital Initiative Working Paper No.1, The World Bank, April 1998)

RESEARCH SETTING AND TOPICS

Asia is an excellent setting to examine transformation activities by non-Western companies. First, Asian economies experienced phenomenal economic performance prior to the late 1990s, severe downturn after then, and now dramatic recovery. Both scholars and managers worldwide have paid considerable attention to those factors that contributed to its past success, failure and recent recovery.

In addition, changes in the business environment in the late 1990s (i.e., economic crisis) have influenced almost all Asian firms. After facing the same environmental changes, some firms failed to recover from the crisis and finally went to bankrupt. Other firms recovered from its initial difficulties and emerged as the companies that are much more competitive than ever.

We understand that a firm can transform itself, but with significant difficulties. Lending support to this understanding is the fact that about 70% of all change initiatives by Western firms have failed. With the lack of supporting social capital, transformation by Asian firms should have been much more difficult and challenging. We now need a better understanding of why certain firms in Asia succeeded in their transformation while others did not and from the social capital perspective, how does the successful transformation of Asian firms differ from Western firms. Some of the topics associated with the above general questions may include:

- What was the nature of the radical environmental changes in Asia?
- What factors were most critical to the success of Asian firms in the past and what are their major challenges in the new environments?
- What are the nature and processes of corporate transformation by Asian firms?
- What cultural issues did they face in the process of transformation and how did they overcome these issues?
- What specific actions and programs did Asian firms take to deal with fundamental changes in their environment? What did they try to accomplish through their productivity improvement?
- What difficulties did they face in the process of productivity improvement? How did they overcome these difficulties?

A direct extension of the above topics is the role of social capital resources in the transformation process. A small sampling of the related topics may be:

- Did productivity matter in transformation process by Asian firms? If so, why?
- On which aspects of the transformation process did social capital resources focus on?
- What are the characteristics of social capital in Asian firms which were successful in transformation process?
- What were the processes or stages of transformation? And what were the roles of social capital in each stage?

RESEARCH FRAMEWORK

Definition of Social Capital

Robert Putnam defines social capital as "features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions." What is broadly agreed is that social norms and/or social networks are key elements of social capital, and that trust is also part of it or, at least, a close proxy for it. Social capital is widely seen as a resource that facilitates cooperation within or between groups of people. It can arise in relationships in many areas of life.

Dimensions of Social Capital

The key dimensions across previous studies reveal the strong consistency among

researchers in the dimensions conjectured to be subsumed within the social capital construct. First, most authors agree that social networks and/or social norms are key elements of social capital.

Second, most authors see 'trust' as being either an additional element of social capital or a close proxy for the level of social capital present in a community. Trust, norms, and networks are included in all the previous studies.

Social norms are 'informal rules' that condition behavior in various circumstances. Specific social norms include surrendering seats to the elderly on public transport and not littering, while generalized social norms may include tolerance, behaving honestly and helping those in need.

A social network is an interconnected group of people who usually have an attribute in common. For example, they may like a particular sport or may share the same occupation or religion. At a more micro level, families and groups of friends will exhibit network characteristics. Different groups often have their own set of social norms and levels of mutual obligation between group members.

Trust is simply the level of confidence which people have that others will act as they say or are expected to act, or that what they say is reliable. Social trust refers to the general level of trust in a society — for example, how much one can trust strangers and previously unencountered institutions.

More specific definitions and explanations of key dimensions, norms, network and trust are as follow.

Norms

Social norms are shared understandings, informal rules and conventions that prescribe, proscribe or modulate certain behaviors in various circumstances. Generalized social norms can include being honest and law abiding, the work ethic, respect for elders, tolerance and acceptance of diversity, and helping people in need. Social norms can also relate to specific situations such as paying bills on time, queuing at shop counters, returning other's lost possessions, surrendering seats to the elderly on public transport, and forms of greeting. Social norms are often unwritten, although they can also be expressed or reinforced through tribal or religious beliefs and dictums, nursery rhymes, social sayings, music and drama. Under some interpretations, social norms can also be embodied in laws and regulations themselves.

Social norms often facilitate more predictable or beneficial behavior patterns from individuals in society. Underpinning many social norms is the concept of 'reciprocity', which is strongly reflected in the ethic of 'do unto others as you would have them do unto you.' Reciprocity may be specific or generalized. That is, whether the favorable act will be reciprocated, and when it will be reciprocated, by and to whom - all of which may or may not be known before the person commits to doing that act.

Different societies have different social norms. Some of the norms prevalent in Western societies differ markedly from those in developing countries. And while some social norms operate at the broad societal level, different groups within a particular society can also have their own, often stronger, set of norms.

Compliance with social norms may be encouraged through internal psychological sanctions, such as guilt, or external sanctions such as shame and ostracism. In some groups or societies, norms are enforced through physical sanctions or threats. Informal social norms can act as complements to, or even partial substitutes for, laws and associated enforcement processes.

Networks

A network is an interconnected group of people who usually have an attribute in common. For example, they may like a particular sport or may share the same occupation. At a more micro level, families and groups of friends will exhibit network characteristics.

An individual can belong to more than one network at once. As well as family, an individual may be a part of separate networks of relationships based on his or her neighborhood, recreational preferences, vocation, gender, parental status, politics, religion, race and/or national grouping. Each of these groupings may come with different norms and levels of mutual obligation or expectation, and may generate different levels of 'generalized trust' towards others within or outside the grouping.

The literature draws a distinction between dense and sparse networks. Dense networks have overlapping or 'multiplex' ties between group members. This interconnectivity is lacking in sparse networks, where contacts are generally weaker and more distant.

Being part of a network provides individuals with benefits such as a greater pool of social support when needed, greater access to information (and lower search costs), and a wider range of opportunities.

Networks can also play an important role in the provision of other aspects of social capital. Social norms are more likely to spread and be observed in a more connected society, and members of a highly connected community may find it easier to trust one another. As Putnam notes, an effective norm of generalized reciprocity is bolstered by dense networks of social exchange. If two would-be collaborators are members of a tightly knit community, they are likely to encounter one another in the future — or to hear about one another through the grapevine. Thus they have reputations at stake that are almost surely worth more than the gains from momentary treachery. In that sense, honesty is encouraged by dense social networks.

Trust

Trust refers to the level of confidence which people have that others will act as they say or are expected to act, or that what they say is reliable. A person's level of trust in another depends largely on the person's perception of the other's trustworthiness, although people can also 'invest' trust in others. While trust can relate to individuals, it can also relate to groups and institutions within a society, including governments. It is also possible to conceive of 'the general level of trust' within a particular society.

As alluded to earlier, while many authors treat trust as an element of social capital, others see it as an important source or outcome of social capital but caution against treating trust as social capital itself. Whatever its precise relationship to social capital, trust and trustworthiness proffer many benefits. They are the bedrock of most personal relationships, facilitate various day-to-day interactions, and play an important role in commerce.

Research Methodology

This study was organized in five selected APO member countries; India, Japan, Republic of Korea, Singapore, Republic of China. The focus of this exploratory research is on corporate organizations and case study approach is adopted for this study. Primary data is collected from at least three cases from each participating countries primarily using specially designed questionnaire. The questionnaire designed to collect information for this purpose is given in Appendix 1.

In this study, the theoretical research on social capital undertaken in various

disciplines have attempted to synthesize and to develop a common conceptual framework that identifies the sources, benefits, costs of social capital. The review suggests several directions for the research using the social capital concept. First, while the mechanics of research are simplified by restricting to a single level of analysis, the reality of organizations is shaped by the constant interplay of the individual, group, business unit, corporate, and inter-firm levels.

Second, research would benefit from more dialogue between proponents of competing perspectives on the sources of social capital. The formalistic network approaches reveal powerful effects of patterns not necessarily visible to the naked eye; but these results are far more interesting if taken as the starting point of a discussion rather than the end-products of the research process. Both theoretical and empirical work will be needed to clarify the role of social capital. More fundamentally, we need to understand which features of social structure encourage the emergence of social relations.

Third, social capital research will benefit from a more systematic assessment of costs as well as benefits. We need to understand better the downsides of social capital both for the focal actor and for others. One actor's social capital advantage is often another actor's disadvantage, and research on the differential access to social capital is therefore a high priority (Lin, 1999).

Finally, if social capital has the manifold effects as it has been ascribed, then it seems important that research works study not only its effects on the fortunes of individual actor's endeavors and externalities for other actors' endeavors, but also its resulting structural effects.

Given the goals of this paper, there is a considerable distance from practice. Nevertheless, the review suggests a number of managerial implications. First, to foster social capital in organizations, the review suggests that managers need to do more than merely encourage social interactions among employees. While some firms interested in fostering social capital have adopted collaborative technologies such as shared knowledge repositories, chat rooms, and videoconferences, these merely create opportunity: building social capital requires not only establishing more social ties, but also nurturing motivation and providing resources (Lesser, 2000).

Second, the discussion on bonding and bridging social capital suggests that management should pay heed to both. Investments in building the external, bridging social capital of individuals (e.g. Burt, 1992; Podolny and Baron, 1997), of units (e.g. Hansen, 1999), or of the firm as a whole need to be balanced by investments in internal, bonding social capital within units, within the firm, and within inter-firm partnerships. Given time and resource constraints, however, investments in these different forms of social capital need to be guided by an understanding of their different contributions to organizational goals.

Third, following from the two previous points, it would seem useful for management to map the social capital ties that are relevant to the various tasks facing the organization. This mapping poses a considerable challenge: from a purely technical point of view, it is far easier to map a small number of ego-networks than to generate an intelligible socio-centric, whole-network map of a large, complex organization. Social capital is more than the sum of the various kinds of relationships that we entertain, and a social capital lens can therefore reveal features of reality that otherwise remain invisible.

Finally, the conditions of productivity can be improved by improving social capital and including them in resource-rich networks. Significant progress can be made to improve productivity by recognizing the role of social capital in creating conditions and by employing social capital in meaningful ways to sustain development.

APPENDIX 1**QUESTIONS LINKING DIMENSIONS FOR CASE STUDIES****Social Capital Measures – Group Characteristics**

<i>Variable/Comments</i>	<i>Scale</i>
<ul style="list-style-type: none"> How many groups or organizations do you belong to? These could be religious groups, sports teams, or just groups of people who get together <i>regularly</i> to do an activity or tasks. <p>[If the specific types of groups are not of interest, a simple question that asks about total number of groups is sufficient. The question should, however, clarify for the respondent the types of groups the respondent is asked to consider when answering.]</p>	(Absolute frequency)
<ul style="list-style-type: none"> On the average, how much money, if any, do you contribute to the groups to which you belong in a month? <p>[If the investigator is interested in distinguishing among groups, (e.g. most important group, second most important group) the question should be rephrased accordingly. In this article, indices related to money contributed, participation, etc. were additive.]</p>	(Absolute frequency)
<ul style="list-style-type: none"> On average, how often do you participate in the activities of the groups to which you belong in a month? 	(Absolute frequency)
<ul style="list-style-type: none"> To what extent do you participate in the group(s)'(s) decision-making? 	<ol style="list-style-type: none"> To a very small extent. To a small extent. Neither a small nor large extent. To a large extent. To a very large extent.
<p>Thinking about the members of this group, would you say that <i>most</i> are from the same:</p> <ol style="list-style-type: none"> ** Neighborhood/village/community? * Family or kin group? ** Tribe/ caste/ ethnic/ linguistic group? ** Religious group? * Educational background and income level? * Gender? 	<p>Record response:</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>

[We assume that the respondent is being asked about the most important group. Should the researcher be interested in differentiating among two or more groups, response options would be provided for each. Indices referred to in this article, (e.g. same gender heterogeneity index) were additive across the three most important groups identified by respondents. Questions with slashes (/) indicate that the interviewer should use a single term most relevant to the interview situation.]

Social Capital Measures – Generalized Norms

<i>Variable/Comments</i>	<i>Scale</i>
<ul style="list-style-type: none"> Generally speaking, would you say that you can't be too careful in dealing with people, or that most people can be trusted? [Only the anchors of the scale are labeled.] 	1. You can't be too careful. 2. 3. 4. Most people can be trusted.
<ul style="list-style-type: none"> Would you say that most of the time people are just looking out for themselves, or they are trying to be helpful? [Only the anchors of the scale are labeled.] 	1. Are just looking out for themselves. 2. 3. 4. Try to be helpful.
<ul style="list-style-type: none"> Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair? [Only the anchors of the scale are labeled.] 	1. Would take advantage of you. 2. 3. 4. Would try to be fair.

Social Capital Measures – Togetherness

<i>Variable/Comments</i>	<i>Scale</i>
<ul style="list-style-type: none"> How well do people in your community/ village/ neighborhood get along these days? Using a five-point scale where 1 means not getting along at all and 5 means getting along very well, how well are people in your community/village/neighborhood getting along? [For this and other questions with standardized, multiple response options, respondents were shown cards with the response options when asked the questions.] 	1. Not getting along at all. 2. Not getting along very well. 3. So-so 4. Getting along quite well. 5. Getting along very well.

- | | |
|---|---|
| <ul style="list-style-type: none"> ▪ How would you rate the togetherness or feeling of belonging in your neighborhood/village/community? <p>[Again, use a five-point scale where 1 means people do not feel close at all and 5 means that people feel very close to each other.]</p> | <ol style="list-style-type: none"> 1. Not close at all. 2. Not very close. 3. So-so. 4. Somewhat close. 5. Very close. |
|---|---|

Social Capital Measures – Everyday Sociability

<i>Variable/Comments</i>	<i>Scale</i>
<ul style="list-style-type: none"> ▪ In addition to participating in group activities or associations, people also do many activities informally with others. How often do you do each of the following? <p>[Each set of questions (frequency and with whom) in this section are preceded with a general branch question. For example, ‘Do you get together with a usual group of people to play cards, games, board games?’ Where appropriate, these are documented below.]</p>	
<ul style="list-style-type: none"> ▪ On the average, how often in a month do you get together with a group of people to do arts, crafts, or other recreational activities? <p>[Branch question: ‘Do you get together with a group of people to do arts, crafts, or other recreational activities?’]</p>	(Absolute frequency)
<ul style="list-style-type: none"> ▪ Who are these people with whom you do arts, crafts, or other recreational activities? <p>[Questions such as these were asked in an open-ended fashion. The interviewer then recorded the response using a precoded response set.]</p>	<ol style="list-style-type: none"> 1. Family members or friends. 2. Friends from the same caste/ religion/ ethnic/ education/ wealth/ gender group. 3. Friends from <i>different</i> caste/ religion/ ethnic/ education/ wealth/ gender groups.
<ul style="list-style-type: none"> ▪ Who are the people with whom you get together to play cards, games, or board games? 	(Same as above)
<ul style="list-style-type: none"> ▪ On average, how often do you get together with others to play cards, games, or board games? 	(Absolute frequency)

- Who are the people with whom you spend time outside the household in other ways, such as doing chores, shopping, talking, drinking, or just spending time together?

[Branch question: ‘Do you spend time with people outside your household in other ways, such as doing chores, shopping, talking, drinking, or just spending time together?’]
 - 1. Family members or friends.

2. Friends from the same caste/ religion/ ethnic/ education/ wealth/ gender group.

3. Friends from *different* caste/ religion/ ethnic/ education/ wealth/ gender groups.
 - Who are the people who visit you at home?

[Branch question: ‘Do people visit you at your home?’]
 - (Same as above)
 - Who are the people with whom you eat meals outside the home?

[Branch question: ‘Do you eat meals with people outside the home?’]
 - (Same as above)
-

Social Capital Measures – Neighborhood Connections

<i>Variable/Comments</i>	<i>Scale</i>
<ul style="list-style-type: none"> ▪ On a scale from 1 to 5, where 1 is very unlikely and 5 is very likely, how likely is it that you would ask your neighbors to take care of your children for a few hours if you were sick? 	<ol style="list-style-type: none"> 1. Very unlikely 2. Unlikely 3. Neither unlikely nor likely 4. Likely 5. Very likely
<ul style="list-style-type: none"> ▪ On a scale from 1 to 5, where 1 is very unlikely and 5 is very likely, how likely is it that you would ask your neighbors for help if you were sick? 	<ol style="list-style-type: none"> 1. Very unlikely 2. Unlikely 3. Neither unlikely nor likely 4. Likely 5. Very likely

Social Capital Measures – Trust

<i>Variable/Comments</i>	<i>Scale</i>
<ul style="list-style-type: none"> ▪ Now I want to ask you how much you trust different groups of people. On a scale from 1 to 5, where 1 means ‘to a very small extent’ and 5 means ‘to a very 	<ol style="list-style-type: none"> 1. To a very small extent or not at all 2. To a small extent

large extent', how much do you feel you can trust the people in each of the following groups?	3. Neither small nor great extent
[Cards with response options were shown to respondents.]	4. To a great extent
	5. To a very great extent
	6. N/A – No such group
▪ People in your tribe/caste/race/religion/ or ethnic group?	(Same scale as above)
▪ People in other tribes/castes/race/religion/or ethnic groups?	(Same scale as above)
▪ People in your village/neighborhood?	(Same scale as above)
▪ People who belong to the same clubs, organizations, or groups as you?	(Same scale as above)
▪ The business owners and traders you buy things from or do business with?	(Same scale as above)
▪ Politicians?	(Same scale as above)
▪ People in your family?	(Same scale as above)
▪ Government service providers (education, health, electricity, water, etc.)?	(Same scale as above)
▪ Local/municipal government?	(Same scale as above)
▪ Judges/courts/police?	(Same scale as above)

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INTEGRATED REPORT

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SOCIAL CAPITAL: ITS IMPLICATIONS TO PRODUCTIVITY

Understanding social capital helps to explain why otherwise identical firms (in terms of physical capital, technology, human resources, access to markets, etc.) can differ substantially in productivity and competitiveness. High levels of social capital in a firm give it a competitive edge because it is able to operate with fewer transaction costs and in a way which is much more agile and proactive.

According to Sims, social capital is built on trust and the key mechanisms for building trust are communication and cooperation. Trust, communication and cooperation are interdependent and mutually reinforcing. Due to this interrelationship, the elements of social capital form either a virtuous circle, with high social capital, or a vicious one with low social capital. The vicious circle of low social capital is costly to an enterprise, both in terms of management resources and flexibility. Low social capital requires management to constantly guard against acts to undermine the firm (waste, sabotage, slacking, etc.) – which requires more supervisors per worker than empowerment management strategies that are based on trust in workers. Consequently, low social capital directly harms productivity by diverting human capital away from more productive functions. Firms with low social capital cannot take full advantage of the valuable information their workers possess. Workers resist transmitting “bad news” if they fear being punished or sharing “good news” if they believe that they will not benefit. In particular, they will not risk suggesting improvements if they do not stand to gain if the suggestion proves useful, but stand to lose if it ultimately doesn’t work out.

In addition to the direct effects mentioned above, low social capital also harms productivity indirectly, by diminishing the quantity and quality of human capital. Firms stuck in a low social capital trap have lower rates of investment in skills development, are less able to take advantage of the skills of their workforce, and have lower transmission of skills among workers.

Social capital also plays an important role in ensuring that the training the firm invests in is put to use. Skills are of no value unless workers are sufficiently motivated to use them, and good communication channels exist within the firm to ensure the best match between the skills which the firm needs in various positions and the skills its workforce possesses. Furthermore, social capital facilitates the spread of skills and knowledge within a workforce. It has long been known that one of the most important channels for developing skills in an enterprise is the informal transfer of knowledge in the workplace.

Inaba also confirms that good relationships often enhance labor productivity by facilitating the communication among peers with different backgrounds. Asymmetry of information is always in existence, even between various divisions within the same firm. It is of vital importance for any firm to take into account the effectiveness of the network among workers. However, it should be noted that there could be cases in which social ties among peers may work against eventually hurting the overall performance of the firm. Exclusive social ties may have negative impacts. In other words, such relationships among peers may sometimes be accompanied by a dark side.

Social capital always reflects some aspects of culture whether social or corporate. In that sense, it is a concept beyond economics. Any study about the economic impact of social capital should be carried out in the context of cultural backgrounds and should reflect values inherent in the culture. By the same token, the way social capital functions in daily businesses may differ from one firm to another. In addition, just as there are constant changes in the contents of culture, the nature of social capital at firms may change when dynamics are taken into account.

DIMENSIONS OF SOCIAL CAPITAL IDENTIFIED

Norms

Norms of behavior or codes of conduct could facilitate the formation of a culture of cooperation and coordination geared towards organizational goals. Clearly, social capital has a significant influence on productivity growth. Respect for each other, information sharing, cooperating with and helping others, and personal contacts with colleagues, emerge as the basic norms or code of conduct. However, firms need to develop practices such as rewards, performance management, treating employees based upon the principles of fairness, and encouraging personal contacts.

Network

Networking among the employees within the organization and others outside the organization would create possibilities for the flow of information and ideas that could catalyze improvements and solutions for problems. All respondents reconfirm that becoming a member of internal as well as external groups help in obtaining information that facilitate higher performance. Membership of external groups was most common for individuals who have taken personal initiatives and organizations' facilitation needs to be strengthened. The self interest of individuals seems to prompt them to become members of external groups. However, these relationships would become an asset for the organization only if organizations create conditions that motivate employees to use them for organizational benefit. In this interconnected and interdependent world, interpersonal relations become more important, particularly with outside stakeholders as these would help in obtaining intelligence about changes in the markets, customers preferences and emerging competition. Personal relations with stakeholders and listening to them would substantially facilitate building trust with them.

Trust

Literature on productivity clearly brings out that the productivity in the extant complex business environment depends more on intangible factors than capital, technology and machines. These intangible factors include motivation, creativity, engagement, vision, attitudes, values at individual level, openness, transparency, value-based and a vision-focused management style that leads to development of a productive corporate culture. Realizing that improvement is primarily a social change process, existence of trust between management and employees on one hand and among employees on the other, plays the most critical role in formulating and implementing improvement plans.

Trust, as a dimension of social capital, can act as a trigger for achieving effective utilization of human capital. Trust among members facilitates exchange and combination of ideas recognized as key processes for the creation of new knowledge. Research has

shown that trusting relationships is one of the critical factors in the transfer of ideas and practices within the firm, particularly of tacit knowledge.

RESEARCH FINDINGS

Major findings from researches conducted in five countries are summarized as below:

1. All three dimensions, norms, networks and trust, are present across all participating countries.
2. Social capital has proven impacts on productivity improvement.
3. The impact of social capital on productivity improvement would only be 'speculative', although there is consensus that a high level of social capital would link to high productivity.
4. Income, education level, firm size/stage of growth, etc. affect the level of social capital.
5. Different stages of economic and social development would result in different levels of social capital.
6. Adverse effects of social capital are found.
 - Strong group bonds can exclude outsiders and create an undue focus on the group's needs to the detriment of the broader group. Strong group norms and sanctions may also stifle individual expression and initiative
 - Both bridging and bonding social capital are required in the daily operations of firms. Bridging social capital is imperative to span gaps between various people with different backgrounds, whereas bonding social capital is needed to create a sense of cohesion among workers. However, bonding social capital is a two-edged sword. Bonding social capital, creating strong in-group loyalty, may also create strong out-group antagonism. For that reason, the negative external effects expected to be more common in this form of social capital.

RESEARCH LIMITATIONS & SUGGESTIONS FOR FUTURE RESEARCH

This empirical study has a range of limitations. Problems in studies reflect conscious decisions made to push ahead with the imperfect but best data available. A key criticism would relate to the soundness of variables used as measures and indicators of social capital.

Previous researches provide little rationale for how their measures of social capital connect to the theoretical definition of social capital. In this study, measures of social capital are actually measures of its outcomes, not of social capital itself, while noting that the use of outcomes of social capital as proxies may be justifiable. Several possible changes of the survey instrument can be suggested for future research, such as:

1. Define more clearly the sampling scope and selection criteria.
2. Add questions focusing specifically on the potential impact of social capital on productivity.

SOCIAL CAPITAL IN FIRMS, ALLIANCES & CLUSTERS: WHY IT IS IMPORTANT FOR PRODUCTIVITY & COMPETITIVENESS; AND HOW TO BUILD IT¹

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INTRODUCTION

The source of productivity and competitiveness is capital—economic, human and social. Economic capital includes plants, machines, trucks, materials, and other physical assets needed for production and distribution. Human capital is the skills, knowledge and competence embedded in the workforce. Social capital is the level of trust, communication and cooperation that exists within an enterprise.

The value of the firm's investment in economic capital depends on its level of human capital—machines are worth only as much as the abilities of the people who operate and maintain them. In addition, a firm's employees are its primary source of innovation in the production process. More skilled and competent workers are better able to spot areas for improvement in production, quality, design, etc., and to implement changes rapidly and effectively. There is a growing appreciation of the importance of human capital for productivity and competitiveness, as evidenced by the large volume of research devoted to this field.²

Researchers increasingly realize, however, that the value of a firm's investment in human capital in turn depends directly on its investment in social capital. Without trust, communication and cooperation a firm is unable to make the most of its human capital, and hence its economic capital. Appreciation is also growing for the broader role of social capital: in transmission of best practices; in developing alliances, clusters, and industries; and in the innovation process.

This chapter will further explore the contribution of social capital to productivity improvement and increased competitiveness, and discuss key means of building social capital in enterprises.

THE IMPORTANCE OF SOCIAL CAPITAL TO PRODUCTIVITY IMPROVEMENT

Researchers have become interested in studying social capital principally because it helps to explain why otherwise identical firms (in terms of physical capital, technology, human resources, access to markets, etc.) can differ substantially in productivity and competitiveness. High levels of social capital in a firm give it a competitive edge because it is able to operate with fewer transaction costs and in a way which is much more agile and proactive.

¹ Emily Sims, Specialist, Enterprise Department, ILO, Geneva. This chapter is an expanded version of an article published by the author in the *International Labour Review*, spring 2005.

² See, e.g., Ashton, D. and J. Sung (2002).

Research on social capital comes from a broad range of disciplines, including sociology, psychology, industrial relations, economics, and political science. Definitions of social capital vary according to discipline, but usually take as their starting point something similar to the definition given by Coleman (1988): social capital is the social structures and networks that enable people to pursue shared objectives. According to Dasgupta (2005), social capital is a component of total factor productivity: “There is no single object called social capital, there is a multitude of bits that together can be called social capital. Each bit reflects a set of interpersonal connections.” (p.6). These interpersonal connections are built on a sense of mutual benefit and shared interest in the outcome of cooperative behaviour.

These interpersonal connections are termed “capital” because they have a value—they can be drawn upon to achieve an objective (obtaining employment for an individual, cleaning up the neighbourhood for a community, producing more effectively in teams, etc.) which would either be more costly or impossible to achieve without the interpersonal connections.

Social capital is built on trust. Trust is influenced by societal norms, but also depends on the norms of the enterprise itself, which are expressed in and formed by direct and indirect personal interactions.

The key mechanisms for building trust are communication and cooperation. Trust, communication and cooperation are interdependent and mutually reinforcing:

- The level of trust between workers and managers in an enterprise at any given moment heavily influences the willingness of workers and managers to communicate effectively.
- The effectiveness of communication, in turn, determines how much workers and managers will cooperate to improve productivity.
- Success (or failure) in cooperating determines the future level of trust between workers and managers in the workplace.

Due to this interrelationship, these elements form either a virtuous circle, with high social capital, or a vicious one with low social capital. The vicious circle of low social capital is costly to an enterprise, both in terms of management resources and flexibility. Low social capital requires management to constantly guard against acts to undermine the firm (waste, sabotage, slacking, etc.) which require more supervisors per worker than empowerment management strategies based on trust in workers. Consequently, low social capital directly harms productivity by diverting human capital away from more productive functions.

Low social capital also harms productivity by forcing managers to use controlling strategies which reduce the firm’s flexibility and prevent it from making the best use of modern production management methods which rely on greater autonomy for teams of workers. Control requires more rigid and formal procedures, which leave the firm vulnerable in the face of changes in demand or increases in competition. A building structure must be solid, but if it is too rigid, it cannot withstand shocks such as strong winds and shifting ground. Likewise, an enterprise must also be solid yet able to absorb movement in markets through flexible production methods. Controlling management strategies based on lack of trust rob an enterprise of this valuable flexibility. Flexibility is especially important for team-based production methods. In an environment with high social capital, a work team can improve its production methods without seeking managerial approval first because management trusts the team’s judgement and motives.

Productivity is likewise harmed because low social capital obstructs sharing of valuable information. Burns (2001) explains that high levels of trust in an enterprise bring both information access benefits (employees at all levels are more aware of issues and opportunities) and information timing benefit (they are aware earlier and able to act faster). Firms with low social capital cannot take full advantage of the valuable information their workers possess. Workers resist transmitting “bad news” if they fear being punished or sharing “good news” if they believe that they will not benefit. In particular, they will not risk suggesting improvements if they do not stand to gain if the suggestion proves useful, but stand to lose if it ultimately doesn’t work out.

Lastly, low social capital impairs the functioning of teams. Teams with high levels of trust are more open to discussion, develop more innovative and original solutions, solve their problems more effectively, and team members are less inclined to engage in behaviour which disrupts the work environment (Costa, 2003). There is also evidence that the level of social capital influences how motivation is translated into group performance: in firms with high levels of social capital team members focus more on joint efforts which yield higher performance; in firms with low social capital, motivation is transformed into individual efforts so groups perform more poorly (Dirks, 1999).

Social capital is leveraged through networks. An individual with a high level of trust with two strangers can serve as the initial basis of trust between them. This allows firms to expand the reach of their social capital to perform more efficiently. However, direct experience will eventually reinforce or erode that initial proxy trust.

The Link between Social Capital and Human Capital

In addition to the direct effects mentioned above, low social capital also harms productivity indirectly, by diminishing the quantity and quality of human capital. Firms stuck in a low social capital trap have lower rates of investment in skills development, are less able to take advantage of the skills of their workforce, and have lower transmission of skills among workers. Schuller (2001) explains: “individuals and their human capital are not discrete entities that exist separately from the rest of the organisation, or from other social units. The acquisition, deployment and effectiveness of skills depend crucially on the values and behaviour patterns of the contexts within which these skills are expected to operate.” (p.4).

Social capital plays an important role in facilitating investment in human capital. Enterprises with low social capital have higher turnover rates—workers with options prefer to work elsewhere and management is more likely to fire people rather than solve problems more constructively. Hence in such firms, the rate of investment in skills development is lower because the firm expects that the worker will not be around for long enough to make most investment worthwhile. Likewise, workers are not willing to invest much effort in acquiring firm-specific skills which will be of little value to them when they leave the enterprise.

Social capital also plays an important role in ensuring that the training the firm invests in is put to use. Skills are of no value unless workers are sufficiently motivated to use them, and good communication channels exist within the firm to ensure the best match between the skills the firm needs in various positions and the skills its workforce possesses. Firms with higher social capital have more motivated workers (see, e.g., Doeringer et al., 2002).

Furthermore, social capital facilitates the spread of skills and knowledge within a workforce. It has long been known that one of the most important channels for developing skills in an enterprise is the informal transfer of knowledge in the workplace—

occupational skills are learnt on the job, implicitly as well as consciously. Levin and Cross (2004) summarize the empirical findings concerning the impact of social capital on the development of human capital in an enterprise:

“...people prefer to turn to other people rather than documents for information, even [those] with ready access to sources of information reported seeking information from colleagues significantly more than from impersonal sources; relationships have been found to be important for acquiring information, learning how to do one’s work, making sense of ambiguous situations, and solving complex problems.

...

Overall, trusting relationships lead to greater knowledge exchange because when trust exists, people are more willing to give useful knowledge and are also more willing to listen to and absorb [information from others]. By reducing conflicts and the need to verify information, trust also makes knowledge transfer less costly. These effects have been found at the individual and organizational levels of analysis in a variety of settings.” (p.3, 5; citations in text omitted).

Social capital also increases the quality of human capital. Much of the skills, knowledge and abilities workers possess is worth more in teams, due to their complementary nature. For instance, the value to an automobile manufacturer of design skills and engineering skills are worth more when the designer and engineer work together to create a car than when they work in isolation—the product quality is likely higher, the turnaround time is generally shorter, and knowledge is shared in the cooperative process. In sum, the knowledge base of a workforce is richer as the level of trust, communication and cooperation increases.

Human and social capital have a symbiotic relationship in a firm. Social capital helps to cultivate and optimize the use of a firm’s human capital. Human capital, in turn, facilitates the development of social capital. As the skills and knowledge base of workers increases, so does their confidence, making it easier for them to trust, communicate and cooperate. Furthermore, as Schuller (2001) explains, investment in human capital can also be a means of investing in social capital because it strengthens networks and information flows (p.4).

The Role of Decent Work in Building Social Capital within a Firm

The concept of decent work, or job quality, which is based on principles contained in international labour standards, provides the means for building social capital in a firm for productivity improvement and increased competitiveness. Managerial practices which promote quality jobs have been shown to be the most effective means of raising productivity in firms. In particular, efficient management of supply chains based on decent work principles has been shown to have a substantial impact in moving firms up the value chain, especially micro and small producers.

Firms can work smarter and more creatively only with good labour-management relations. Productivity depends on the commitment at all levels of an enterprise to strive relentlessly to do better. This drive can come only from highly motivated and committed workers and managers, working together in an atmosphere of mutual trust, good two-way communication and cooperation.

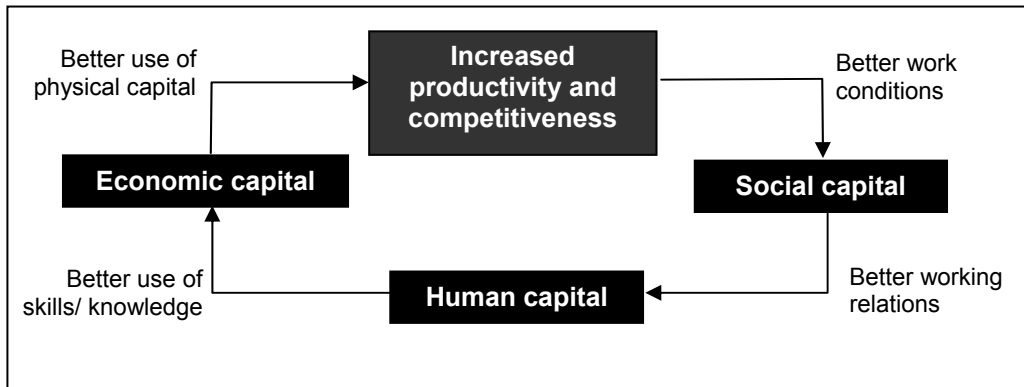


Figure 1: The Link between Conditions of Work and Social Capital

There are many terms in contemporary management research that try to capture the concept of good labour-management relations for improved productivity, such as “innovative work processes” and “high performance work practices”. Although the terms may vary, the key elements to improve productivity are all embodied in the concept of decent work. Table 1 provides a summary of these key elements.

Table 1: The Relation between Decent Work and Productivity Improvements

Decent work principle	Example in practice	Contribution to productivity improvements
Worker voice	<ul style="list-style-type: none"> ▪ Labour-Management Committees ▪ National Productivity Centres ▪ Regional and national social dialogue 	<ul style="list-style-type: none"> ▪ Improve communication ▪ Build trust and cooperation ▪ Obtain vital information ▪ Improve worker morale ▪ Optimize production design ▪ Worker buy-in to changes
Job security	<ul style="list-style-type: none"> ▪ No lay-off policy ▪ Internal labour markets ▪ Socially responsible enterprise restructuring 	<ul style="list-style-type: none"> ▪ Increase trust ▪ Increase experience of workforce ▪ Increase morale ▪ Increase commitment
Devolving responsibility	<ul style="list-style-type: none"> ▪ Self-monitoring teams ▪ Quality circles 	<ul style="list-style-type: none"> ▪ Decrease bureaucracy ▪ Increase leeway and creativity ▪ Increase worker solidarity ▪ Speed response times
Skills development	<ul style="list-style-type: none"> ▪ Formal training ▪ On-the-job training ▪ Continuous training 	<ul style="list-style-type: none"> ▪ Increase skills base for innovation ▪ Adapt more quickly to change ▪ Employ more advanced technologies

Multi-skilling	<ul style="list-style-type: none"> ▪ Job rotation 	<ul style="list-style-type: none"> ▪ Increase flexibility ▪ Broaden worker knowledge of production process ▪ Increase morale through variety in work
Gainsharing	<ul style="list-style-type: none"> ▪ Profit sharing ▪ Increased job security ▪ Improved working conditions ▪ Better opportunities for advancement 	<ul style="list-style-type: none"> ▪ Motivate workers ▪ Emphasize mutual benefit ▪ Link reward directly to productivity gains ▪ Focus on group performance

Decent work principles are designed to ensure respect for the human rights at work of all people. They also stress the importance of communication, and hence foster a climate in which workers are highly motivated and cooperation between labour and management is maximized.

Decent work principles also play a central role in sustainable development. Workers are the most critical asset of firms and the most valuable resource in any economy. Decent work principles emphasize the importance of individual, enterprise, and government investment in human capital, to promote both employment of individuals and general economic and social development. They also emphasize the symbiotic relationship between the firm and the social and environmental context in which it operates, and encourage firms to think more broadly about their role in the community (see Box 1).

Box 1

BANTAI Industries: Decent Work-Based Managerial Practices in the Textiles Industry

BANTAI Industries Private Limited is a Bangladeshi company that manufactures baseball caps at its factory in Kalyanpur, Dhaka. Twelve production line supervisors overlook 370 machine operators and operator assistants. Ninety-two percent of the employees are women.

The CEO and management team believe that respect for the basic rights of workers is important for productivity and profitability. They also believe business should take responsibility for providing social services for workers such as basic health care and education for children. BANTAI emphasizes human empowerment and the right of all people to fulfill their potential. It creates a workforce with high self-esteem.

Most of the BANTAI workers come from the rural area. They are given extensive in-house training, including training in occupational health and safety measures. A doctor from Dhaka Community Hospital visits the factory at least once a week to provide treatment, guidance and advice to the workers; and an NGO provides advice and contraception. There is a daycare for infants and a non-formal primary school providing education for children. Through discussion meetings and individual counseling, BANTAI raises workers' awareness of important social issues affecting women such as dowry, marriage and divorce.

BANTAI is a successful company, and its management attributes increased productivity and profitability to the company's welfare and social development programmes. The staff turnover of BANTAI is one of the lowest. The workers have a sense of full participation, ownership and organizational commitment. There has never been a strike, unrest or agitation in the company since it was formed 10 years ago. BANTAI has an absentee rate of less than 1%. Product quality is exceptionally high, with a rejection rate due to faulty manufacturing of less than 0.15%, compared with the industry average of 2.5%.

Source: Choudhury (2001).

Decent work principles enable firms to better respond to shocks. The safety nets provided for displaced workers in economic downturns partially compensate for the increased exposure to risk that they face in increased globalization, thereby making globalization less threatening. In fact, globalization may be one of the key factors in the increasing spread of the concept of decent work at micro and macro levels. For instance, Lazonick and Sullivan (1997) found that the challenge to high value-added industry has come from enterprises that have gained competitive advantage not by paying lower wages, but by developing and utilizing broader and deeper skill bases, which requires cooperative rather than authoritarian management practices.

Decent-work based managerial practices which are most effective for increasing productivity include the following:

Worker voice. Communication must be two-way to obtain productivity improvements. Workers, through their representatives, must be closely involved in the design of systems to improve productivity, to ensure that the design is appropriate and well understood by the workforce. Worker voice is also essential for cultivating an environment of trust and cooperation, based on mutual respect. How can you respect someone who cannot be bothered to listen to your concerns and ideas?

Unions, as a primary vehicle for providing worker voice, have a particularly important role to play at many levels in productivity improvement. Unions are associated with reduced quit rates, which enable firms to increase their investment in upgrading the skills of their workforces. Unions also tend to induce management to alter its methods of production and adopt more efficient policies instead of relying on short-term, non-sustainable methods of productivity gains such as cutting the workforce and forcing the remaining staff to work longer hours.

Unions can improve morale among workers, as they have better access to the preferences of all workers that allows for the better design of compensation packages and personnel policies. Unions can promote cooperation among workers since they tend to reduce inequalities, thereby fostering a team spirit. Many unions also contribute in important ways to increasing the skills base of the workforce through union apprenticeships.³

A common means of giving voice to worker concerns is through establishing labour-management committees (LMC). LMC are designed to facilitate genuine consultation and cooperation. They generally are established with the primary goal of improving productivity and in fact tend to have higher productivity and are positively

³ See Fashoyin, 1997.

correlated with value added per worker. Other benefits associated with LMC include: improved labour-management relations; improved communication and problem solving; reduced number of grievances and complaints; and a better front-line understanding of operations and day-to-day management issues. LMC are most effective when they include union representatives, and are least effective long-term when they are used to subvert the legitimate role of unions in consultation at the workplace.

Minimizing hierarchies and devolving responsibility to workers organized in teams. A team-oriented approach to organization of work is essential to creating cooperation. Workers respond much better to self-monitoring in groups than to traditional supervisory arrangements because it shows greater respect, provides more responsibility and leeway for creativity, and fosters worker solidarity within teams. Trimming layers of unnecessary management may also reduce costs, speed response times, and enable management to tap into the knowledge of front-line staff by sharing responsibility.

Investing substantially in skills development among the entire workforce. It no longer makes sense to concentrate training budgets on management when generally the frontline workers are the ones who have the best access to information on customer preferences, product quality and production processes. Contemporary notions of productivity depend crucially on the ability of frontline workers to identify, communicate, design and carry out productivity improvements. Consequently, they require training in a broader range of skills related not only to their cluster of tasks, but also to self-monitoring functions such as basic statistics for quality control and basic accounting for cost control.

Multi-skilling through varying tasks. Rotating responsibilities within groups helps to develop a broader range of skills among the workforce, which increases the firm's flexibility and agility. Rotation also better integrates workers into the entire production process, and provides new challenges and sources of professional advancement.

Job security. Workers operating under constant threat of job loss are not able or willing to give 100 per cent of their attention and effort to the firm. If they perceive productivity improvements as a means for management to get rid of workers, they would be foolish to share information or invest a lot of energy into making themselves redundant. More generally, a lack of serious commitment on the part of the firm to avoiding layoffs undermines any other efforts management might make to foster trust, good communication and cooperation. Lastly, lack of commitment to job security tends to lead to higher quit rates, making it less rational for firms to invest in skills development of the workforce, which stunts the potential for productivity improvements.

Gainsharing. Productivity improvement relies on the partnership of management and labour in making the best use of capital and technology. Therefore, all parties have to be fairly rewarded for their contribution to the overall increase in productivity to ensure that everyone is sufficiently motivated to carry out their critical role as providers of capital, organizers of work, or frontline workers.

Prioritizing worker welfare. Concern for worker welfare (occupational health and safety measures, working time, grievance procedures, support to workers with family responsibilities, etc.) is a vital element for building a pro-productivity environment, as it clearly signals that management appreciates the important role of the workforce in

productivity improvements. Measures that enhance occupational safety and health are of themselves productivity improvements. Others that relate to, inter alia, reducing the number of grievances and speeding up the settlement process reduce the number of lost work hours and hence indirectly contribute to productivity.

Empirical Evidence of the Impact of Decent Work on Social Capital within a Firm

In order to assess the impact of decent work management practices on productivity, one needs to combine various methods to get an accurate picture. Case studies give a rich picture of the precise link between decent work and productivity improvements but do not allow one to draw general conclusions. Larger sample sizes are needed, but such quantitative data may also have problems. Sample size is often a problem, due to the high cost of on-site visits. This makes it more difficult to precisely estimate the effect of decent work practices and tends to lead to an underestimate of their impact. In addition, there may be an omitted variable bias—organizations which adopt decent work practices tend to attract more able workers and managers, with generally more innovative and cutting edge marketing, finance, distribution, R&D, etc., making it difficult to isolate and gauge the magnitude of the impact of decent work. If omitted variables are stable over time, one can use longitudinal data to control for omitted factors, but there is an increased risk of measurement error and attrition. There may also be a selection bias against some sufficiently successful firms which do not consider the cost of implementing new work practices to be justified—the complacency trap.

Most often, advanced and innovative work practices are implemented in startups or firms in need of far-reaching changes to turn around poor performance (see Box 2). However, diffusion studies can be used to look at how decent work practices spread and why. In effect, one needs to evaluate the impact on productivity of decent work principles in human resource management using a variety of methodologies.⁴ Nonetheless, the cumulative evidence from an array of studies substantially supports the conclusion that decent work human resource management practices contribute substantially to increases in productivity.

For instance, an intra-industry study by Ichniowski, et. al. (1995) found that in steel mills the organization of work and integrated and coherent cooperative work practices (extensive recruiting and careful selection, flexible job definitions, problem-solving in teams, gainsharing, employment security, and extensive labour-management communication) have large effects on the productivity and quality. Steel makers using cooperative work practices were about 7 per cent more productive than those with more confrontational human resource management practices. However, adopting only one aspect of decent work had no effect on performance.

In a comparative case study of the apparel industry using cross-section data with one group as a control, Berg, et. al. (1996) found that productivity improvements are optimized through coordination among team members as a result of their cooperation, mutual support and ability to self-regulate work.

Productivity in services industries also appears to be positively linked to decent work principles. Batt (1999) found that the application of cooperative work practices in telecommunications operations increases productivity and profits.

A transnational intra-industry study by MacDuffie (1995) of automobile plants in the US, Canada, Japan, Europe, Australia, Republic of Korea, Republic of China, Mexico,

⁴ See, Ichniowski, et al. (1996) for a detailed discussion.

and Brazil found that factories which combined decent work practices with lean production had the highest levels of production.

Box 2

NUMMI: A Longitudinal Case Study

In 1963, General Motors opened an automobile assembly plant in Fremont, California. By 1978, this plant employed over 7,200 workers. By 1982, it was closed: GM-Fremont ranked at the bottom of GM's plants in productivity and was producing one of the worst-quality automobiles in the entire GM system.

In 1983 General Motors and Toyota jointly reopened the plant, now named New United Motor Manufacturing, Inc. (NUMMI). NUMMI is one of the best plants in the industry. The plant employs over 4,000 union members and produces an average of 87 vehicles per employee, far above the 50 cars per worker at GM's second most efficient facility. In 1998 NUMMI won the National Association of Manufacturers' award for excellence. The award noted that this plant managed a changeover to a new model in the remarkable time of only 5 days and took only 30 days to reach full production. The quality of the new vehicles, already one of the highest rated, was nearly 50% better than the old version, while the cost-reduction targets through the launch were exceeded by 86%. In addition the workforce made over 3.2 suggestions per person in 1998, of which 81 percent were adopted. Over 86% of the plant's team members made suggestions that year, leading to a savings of over \$27 million.

NUMMI is the same plant, with the same union and the same workers as the former GM plant. The difference is due to new management approaches. The new Toyota managers introduced the system of lean manufacturing, which depends crucially on trust and respect for workers. This system emphasizes teamwork, job security, employee involvement, and worker self-confidence. The system makes all employees responsible for quality and safety and provides a method (the andon cord) for any person to stop the line to get help with a quality or safety problem. This new system also promotes an egalitarian culture and team approach. NUMMI has 3 levels of management, compared to 5 or 6 levels at other GM plants. All workers at NUMMI are part of 3-6 people multifunctional teams, run by a team leader, who is not a part of management but a union member selected jointly by management and the union.

O'Reilly and Pfeffer (2002) explain: "From the beginning, the NUMMI system has relied on a unique relationship between the union and management...[union] has supported the NUMMI production system, including the team concept, ...job classifications, non-confrontational problem solving (asking "why", not "who")". In return for this support, NUMMI management recognized from day one the same union (UAW, Local 2244) that represented workers at GM-Fremont; agreed to pay union-scale wages; agreed to reappoint the union bargaining committee; asked union leaders under the old system to resume their role; agreed that team leaders (the

key production position at NUMMI) should be selected jointly by union and management; agreed to a no-layoff policy; and signed a new collective agreement. The new collective agreement starts by stating: "Both parties are undertaking this new proposed relationship with the full intention of fostering an innovative labour relations structure, minimizing traditional adversarial roles and emphasizing mutual trust and good faith".

As one of the NUMMI union leaders put it: "It's hard to say what's the role of the union, what's the role of the company. It doesn't work that way. It's a partnership. It's a total rethinking of your role".

Source: O'Reilly and Pfeffer(2000).

There is substantial evidence that increased productivity due to higher levels of social capital has a positive financial impact on the firm. A US national cross-industry study by Huselid (1995) found that the use of job analysis, participation programmes, skills training, communication and dispute resolution had a significant positive effect on a firm's stock market valuation. In a similar study, Patterson et al. (1997) found that decent work principles, in particular skills development and job design, account for 18 per cent of variation between companies in changes in productivity and 19 per cent of variation in profitability. And a meta-analysis of individual case studies by Macy and Izumi (1993) found that decent work practices which increase productivity are positively correlated with increased economic performance of the firm:

"In short, the empirical evidence from case studies, samples of plants within specific industries, and broad national samples of firms in different industries tell a consistent story: Innovative human resource management practices can improve business productivity, primarily through the use of systems of related work practices designed to enhance worker participation and flexibility in the design of work and decentralization of managerial tasks and responsibilities." Ichniowski, et. al. (1996, p.322).

The link between decent work and competitiveness also holds empirically at the national level:

"In pooled, times series regressions using aggregate data for 23 OECD countries for 1973-1995, we find that a broad set of policy and industrial relations variables, including government spending on social protection, union density, strike activity, and income security in the labour market (the "cost of jobs) are statistically significantly related to changes in international competitiveness. These institutional variables are more often significant than relative unit labour costs. That is, among OECD countries technological competition is more often significant than wage costs in explaining variations in international competitiveness over time. Competitive success in this Schumpeterian environment is as likely to be associated with high wage/high productivity systems with cooperative labour relations as it is with cost-competing, wage-cutting, adversarial regimes. More generous social spending and more cooperative labour relations are not particularly associated with poor national performance in international economy, and may be associated with successful performance." (Milberg and Houston, 2005).

Highly productive firms also have been shown to contribute directly to employment expansion. For instance, Doeringer, et. al (2002) have shown that start-up firms which apply decent work principles through innovative management practices experience faster employment growth. More specifically, employee decision-making autonomy, voice and participation in management decisions were not a deterrent to growth of employment and productivity. The same appears to be true for SMEs. Cosh (2000) has shown that SMEs that use progressive management practices which build social capital in the firm are more likely to grow.

**THE LINK BETWEEN SOCIAL CAPITAL AND COMPETITIVENESS:
THE ESSENTIAL ROLE OF SOCIAL CAPITAL IN BUILDING ALLIANCES
FOR INNOVATION AND UPGRADING CLUSTERS**

Alliances and networks are playing an increasingly important role in business strategy. Today's global markets require firms to develop strategic partnerships to maintain and improve their competitive position. This is particularly true of smaller producers in developing countries where access to markets can be more challenging; hence, the growing importance of strategies to develop alliances, clusters and industries, and the increasing recognition of the critical role of social capital in the process. "Firms in communities with a large stock of social capital will...always have a competitive advantage to the extent that social capital help reduce malfeasance, induce reliable information to be volunteered, cause agreements to be honoured, enable employees to share tacit information, and place negotiators on the same wave-length. This advantage gets even bigger when the process of globalization deepens the division of labor and thus augments the needs for coordination between and among firms." (Maskell, 1999, p.7).

Lall (2002) reports that in order for enterprises to form an effective cluster, there needs to be "deliberate cooperation and joint action by cluster members to identify common problems and find and implement common solutions. This requires vision, trust, information sharing and coherence (along with continuing competition)." (p.10). Without sufficient levels of social capital between firms, the effort involved in trying to strengthen a cluster may be more than it is worth. Social capital is also a necessary prerequisite for the transfer of best practices between firms in a cluster which makes possible the upgrading of the cluster as a whole.

An individual producer also must have sufficient social capital with its suppliers and distributors to develop strategic alliances along the value chain, particularly for product innovation. For instance, Yli-Renko, et. al. (2000) have shown empirically that higher levels of social capital between producers and key buyers may facilitate learning by fostering closer, more intensive exchanges of information (p.32).

Social capital also plays an essential role in stimulating innovation in operations for development of industries. The Finnish National Workplace Development Programme (FINWDP) understands well this crucial point. The aim of the FINWDP is to improve productivity and competitiveness in Finnish industries, as well as to increase the quality of working life. Alasoini, speaking of the Finnish experience, explains the critical role of social capital in the innovation process:

"Workforce mobilization in support of change cannot be achieved without the consent of that workforce. Employees may withhold their consent for a number of reasons. The level of trust in management-employee relations is a key distinction between workplaces in this respect. The features common to all the workplaces which succeeded in broadly mobilizing their workforce

was that they did not have any serious problems in their management-employee relations when the development work started. Typically, such problems might otherwise be that employees worry about their job security in the face of change, and that there is tension in negotiations between management and employee groups.

Building high-trust industrial relations is usually a long process, because the nature of these relations is a reflection of the entire cultural foundation of management. Thus if the starting point is deep distrust between the parties involved, it is difficult or even impossible to build high-trust relations during a two or three-year development project. Workforce participation in planning and implementing change and close cooperation and interaction between management and employees at the workplace during the change process are, however, crucial in the long term for creating a framework which reinforces trust.” (Alasoini, 2001, p.19).

Finland is currently ranked number one, in terms of both competitiveness and growth of competitiveness (World Development Forum, 2004-2005).

In neighbouring Denmark, the Danish Research Unit for Industrial Dynamics (DRUID) was founded in 1995 by the IKEA Group and scholars from the Department of Industrial Economics and Strategy, Copenhagen Business School, to enhance the competitiveness of Danish industry, in part through increased social capital.⁵ More broadly, the European Union has been working on ways of increasing social capital in enterprises for increased productivity.⁶ Outside of Europe, countries such as Canada, New Zealand and Australia have been looking at developing policies to foster social capital within enterprises.

Furthermore, social capital plays an important role in the development of an economy as a whole. Lall explains:

“[I]t is widely accepted that interactions between groups and social structures, on the one hand, and productive systems, groups and governments, on the other, are critical to economic performance. Countries with similar factor endowments and policies often perform very differently in economic terms because their modes of social and political interaction differ. Or, where policies differ, the transfer of ‘best practice’ policies from successful economies often fails because the social glue or commitment and ownership that makes them work in some cases is absent in others.

...

Social capital is valuable everywhere: without it, the costs of many economic transactions would be prohibitive, even in developed countries with sophisticated institutions and legal systems. However, its value is greater in developing economies. These economies are undergoing difficult structural transformation, economically and in political and social spheres. Many of the institutional mechanisms needed to facilitate the transformation and ease associated stresses are lacking. Markets are not well developed and there is a concomitant need for policy interventions to strengthen them. Rapid technological change, liberalization and globalisation are exacerbating

⁵ See www.business.auc.dk/druid/

⁶ See http://europa.eu.int/comm/employment_social/knowledge_society/index_en.htm

the stresses while reducing the shelter earlier offered by relative economic isolation. In these conditions, social capital can help countries or communities cope better, and facilitate effective government strategy to overcome the market failures that characterise under-development.” (Lall, 2002, p.4).

The World Bank has developed a research programme to help foster community-based social capital for local economic development.⁷

Alliances and Networks: A Key Business Strategy

Alliances and networks are distinct yet interdependent concepts. Alliances are joint efforts on the part of two or more partners (supplier-supplier, supplier-subcontractor, supplier-buyer, etc.) for a specific objective (improving quality, innovation, improved market access, etc.). Todeva and Knoke (2002) define strategic alliances as: involving at least two partners, which remain legally separate entities; both have some degree of managerial control over assigned tasks; benefits are shared; both make continuing contributions in one or more strategic areas such as technology or products; and they are interdependent concerning the project (although dependency can be asymmetric). The interdependence creates intangible assets and provides motivation for continuing to contribute to the partnership. They are strategic because they grow out of a specific challenge or opportunity facing the firms.

Networks are loose affiliations of enterprises which cooperate in many respects, but do not enter into specific projects together. Networks have both horizontal and vertical components, which include distributors, producers, contractors and sub-contractors. Regional networks typically consist of fairly equal SMEs which are highly specialized, with coordinated economic activity arranged in a hierarchical manner based on shared values, understanding and trust; and are rooted in the culture and institutions of the particular region, and embedded in wider networks (Sydow and Windeler, 1998). Clusters and industrial districts are networks of particular strategic importance to SMEs.

Alliances are said to be “active” partnerships, while networks are termed “passive” (Nadvi, 1997). Passive alliances in networks bring benefits such as easier access to inputs and support services, easier access to subcontractors for specialized production processes (economies of scale), and the ability to take a larger range of orders and subcontract parts to specialized firms (economies of scope). “The rapid flow of information in the cluster ensures that firms are able to reduce transaction costs and minimize uncertainties regarding export markets by assimilating information that flows into the cluster from the experience of other local producers.” (Nadvi, p.19). Networks also serve as a critical source of information on general trends in the market.

Networks are a key means of locating alliance partners for more specific collaboration. These “active” partnerships, in turn, have spill-over effects on the network. “[E]xternal economies are only part of the gains that clustering potentially offers local producers. Deliberate joint action raises prospects of further competitive gains for the cluster as a whole.” (Nadvi, p.21). Clusters, a particular form of network which is sector and location specific, have particularly strong external economies, and often play a critical

⁷ For further information on the World Bank’s programme on the role of social capital in community development and how to measure social capital, see <http://lnweb18.worldbank.org/ESSD/sdvext.nsf/09ByDocName/SocialCapital>

role in enabling smaller firms to replicate the economies of scale and scope larger firms can generate internally, and which are essential to compete in international markets.

Active alliances also are becoming increasingly important as a business strategy. Firms from a wide range of sectors—varying in size, degree of production complexity, technology, as well as level of skills required of the workforce—are increasingly turning to alliances as a means of remaining competitive. Enterprises form alliances for various reasons, including sharing technology or business development services, improving access to market, increasing access to information, and innovation of products or processes. Specific potential benefits of alliances and networks include:

- enhancing productive capacity
- reducing uncertainties in internal and external environments
- acquiring competitive advantages
- gaining future business opportunities
- moving to higher value-added production
- gaining more control, more flexibility
- generating economies of scale and scope.

There are numerous immediate objectives of alliance formation, including information transfer, innovation, or more operational objectives addressing current problems such as cost cutting. However, the fundamental objective of alliances and networks is learning, either as a direct outcome or as a by-product of a more specific objective such as product or process development. It is the learning process which has the greatest potential to create added value. Porter (1998) stresses that competitiveness requires continual innovation, and that continual innovation requires a learning economy characterized by localized interactive learning process (clustering, networking and inter-firm cooperation). The majority of SMEs are in branches of industry which are not R&D intensive, but nonetheless require innovation to move up the value chain.

The key means of learning include acquiring know-how in the course of development or transfer of products or processes, and, more importantly, the common experience of the partners with learning that results in concrete outcomes which then stimulates the desire for more learning. This synergy can motivate the firm to transform the operating culture of an enterprise from learning as an activity to learning as a mode of operation.

If alliances and networks have so much potential benefit, why would any firm hesitate to join forces with other firms, either passively or actively? Despite the potential benefits, many firms hesitate to cooperate due to structural factors such as:

- the intensity of competition
- barriers to entry which may encourage complacency
- the structure of dominant supply chains in different sub-sectors which may deter firms from cooperating
- other factors such as labour scarcity, knowledge intensity, technological innovation, resource consumption, and diversity of organisations within industry.

In addition, there are factors which are specific to an enterprise, such as: size, the amount of investment required of an alliance, tangible and intangible assets each partner brings to the project, collaborative histories, ownership forms, product ranges and diversification, market share and penetration of various distribution channels (Sydow and Windeler, 1998).

Beyond structural issues deterring firms, alliances also entail substantial costs and risks for an enterprise. Costs include the search costs involved in identifying a potential partner or partners, the investment in developing, maintaining, and expanding the partnership, and monitoring the performance of all partners. Alliances also may require a business to reorganize itself to accommodate the needs of the alliance, and will involve resources such as the time and effort of management and staff and economic resources.

Risks include the risk of failure of the project due to relationship factors such as: mismatch of partners, limited ability to monitor each other's behaviour, lags in performance of each side's obligations which can cause hold-up problems for the other, asymmetries of power which leave one partner vulnerable to opportunistic behaviour of the other more generally, or the limited ability of either firm to fully capitalize on the outcomes of the project. Other factors include poor internal management of one or both partners which can expose the other to unnecessary risks or drain excess resources; or the risk of external shocks to one or both partners. Approximately fifty percent of alliances fail—either they do not produce the desired outcome, or the cost exceeds the benefit (Rule and Keown, 1998).

Due to these risks, firms are more willing to enter partnerships which impact peripheral segments of their business while protecting their core business, as this reduces risk while still injecting new learning (Woolcock, 1998). However, this is a lost opportunity to improve the competitiveness of the core business or to transfer the most needed technology and know-how. Firms also are more likely to enter an alliance if they are strategically independent of the potential partner firm because they are less vulnerable, e.g., two enterprises operating in complementary sub-sectors (Woolcock, 1998). Yet the greatest potential gains come from alliances between strategically interdependent firms because each has resources and capabilities of greatest value to the other.

Although most SMEs (and enterprises more generally) need alliances to survive and succeed, the costs and risks act as a strong deterrent. However, enterprises can act to minimize the cost and exposure to risk, while maximizing the potential return on the investment. The next section will explore the role of social capital in achieving this goal.

The Role of Social Capital in Alliance and Network Formation and Operation

Social capital is vital to the success of alliances and networks. "What is crucial about these [highly productive] small-firm industrial districts [in Northern Italy], conclude most observers, is mutual trust, social cooperation, and a well-developed sense of civic community" explains Putnam (1993, p.161). Networks, in turn, facilitate more rapid accumulation of social capital between individuals with no direct contacts (Todeva and Knoke, 2002). Trust in particular is widely identified as the key element in successful alliance formation: "Development of trust is one of the most important alliance competencies. Trust between alliance partners results in candid, open communication and information sharing." (Rule and Keown, 1998, p.38).

Trust in the context of potential alliances is the positive expectation of the partners that each will act in such a way that the benefits of the alliance will exceed the costs, that the gains will be maximized given each party's constraints, and that the gains will be fairly distributed between the partners. Trust also involves the expectation that the other will behave in an objectively-defined appropriate manner, and will be willing to forego opportunistic behaviour for a better joint outcome. It is built on a foundation of ethical behaviour and mutual respect.

Trust is not merely an alignment of self-interests between potential partners, but also a sense of fairness towards each other, since it will only be tested when self-interests

begin to diverge, due to shocks or other reasons. In this case, self-interest will lead to hedging behaviour which limits the amount of social capital in the partnership and drains resources from the project. "Without the other's trust as an asset, power is essentially limited to ...the types that require and consume most in the way of physical and economic resources." (Deutsch p.88, cited in Todeva and Knoke, 2002).

With trust, firms are more willing to expose themselves to risk, more receptive to the other's ideas, more accepting of their interdependence (which is a key element of success of alliance), have less need to impose control on others, and the greater openness increases the likelihood of identifying and solving problems more quickly with creative and appropriate solutions. However, willingness to trust is a preliminary position in a dynamic process of relationship building, and does not mean that a firm acts "blindly". Rather, in the absence of proof to the contrary, it is the starting position of a relationship, which could change if the assumption of trustworthiness is not reinforced by actual trustworthy behaviour (Das and Tang, 1998).

Without a high level of trust, transaction costs are higher in alliances. This is because trust substitutes for knowledge: the more knowledge you have about the partner and actual performance observed, the less you need to rely on trust in the other. But acquiring knowledge is costly, and may be limited in any case. Nonetheless, trust must be based on some indicator of trustworthiness which one partner knows about the other; and the more such indicators exist, the easier it is to trust. In other words, some knowledge is a prerequisite for trust. "Knowledge-based trust arises when one observes a consistent pattern in the behaviour of the trustee and expects it to continue." (Klein Woolthuis, et al., 2002) It can be positive or negative, depending on the behaviour observed. The more direct the source of knowledge—prior alliances between the enterprises, prior alliance of each with a third enterprise—the better the quality of information about the potential partner and the less risk involved (Ibid).

The problem is not being able to observe the behaviour of an unfamiliar partner. Yet it is just such "loose ties" with less familiar partners which have the most potential value in an alliance (Granovetter, 1973). Partners in an alliance tend to become more similar over time, due to contagion and over-reliance on existing ties ("over-embeddedness"). This leads to a decrease in opportunities to learn and innovate, and suggests a competitive advantage to diversifying alliances.

The more control you have over the relationship, the less you need trust. However, control is costly, and can be ineffective or counter-productive. For instance, contracts and the threat of legal sanctions are often used to try to gain control, but may not help when most needed. The risk of opportunistic behaviour is more likely to occur when one side is much less dependent on the relationship than the other side, and is therefore more willing to risk damaging the relationship. But such an imbalance of power is also exactly the condition under which it is most expensive to enforce contracts through formal channels such as litigation and controlling strategies often are less adaptable to changes in the relationship, i.e., contracts may have to be frequently renegotiated (Das & Teng, 1998).

Trust, on the other hand, "is a belief in trustworthiness that goes beyond control and enforcement." (Klein Woolthuis, et. al, p.7). Trust is not the absence of conflict, but a way of viewing the potential in conflicts: "Joint solution of conflict can deepen trust in several ways. First, it may yield learning, which confirms the value of the relation and thereby increases mutual commitment. Second, the fact that problems are solved in itself reduces perceived risk in the relation. The conflict yields a test of the strength of mutual benevolence and dedication to work things out." (Klein Woolthuis, et. al, p.7). Nonetheless, some sense of control is still required to enable a partner to feel sufficiently

comfortable to begin to trust the other. As positive experiences evolve out of the relationship, the need for control diminishes in subsequent phases (Robins and Atuahene-Gina). Trust reduces transaction costs but does not eliminate them. And an effective alliance will be based on a combination of knowledge gathering, trust and monitoring or control.

Networks, in which the collective of members observe each others' behaviour and provide informal control mechanisms, offer a solution to this dilemma. A network creates incentives for members to conform to the norms established within the network. This often serves as the basis for trust among partners with no direct knowledge of each other.

The Role of Networks in Fostering Trust

In networks, trust is directed not at the individual but at abstract principles of behaviour which serve to define the network. Each member trusts that the others will act "as they should," with reference to the norms distinguishing the network. This trust is based on the collective knowledge of the members about any particular firm.

On one level, a network serves as a substitute for direct knowledge through the development of reputation. Typical aspects of reputation which circulate in networks include a reputation for fair dealing, reliability, ability to keep promises about quality, safety and service, etc. Reputation creates an incentive to curb opportunistic behaviour because it gives each partner an interest in protecting their reputation within the network regardless of their intention to continue the alliance once a project is terminated. Without such an incentive, a partner who intends to discontinue an alliance may be tempted to take advantage of the other partner, particularly if she is in a stronger position.

Networks also serve as a broader source of information on potential partners. In networks, potential partners tend to be more aware of each others' existence, needs, capabilities, and alliance requirements at any given time. Consequently, less time and energy is needed to identify appropriate partners, which reduces search costs. Networks generally are local so alliances tend to be path dependent: current alliances provide networks for future alliances. The experiences of alliance partners are then fed back into the network, along with some degree of spill over of their knowledge creation, creating a synergy between the network and alliances.

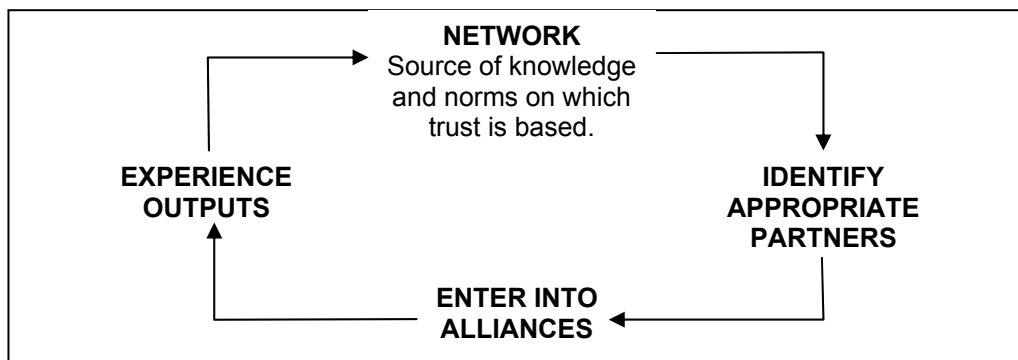


Figure 2: Synergy between Alliances and Networks

However, there are natural size limits to networks. As the size of networks increases, established members prohibit entry of newcomers because the cost of policing reputation and building trust is too high in large networks. The optimal-sized networks

provide extended support and resources through the many connections between member to facilitate the flow of information and cooperation, but at the same time are not too large. These are referred to as “dense networks.”

Density adds to the value of networks, but their localization tends to limit their value. Reliance on dense ties within networks restricts the pool of potential partners, and tends towards homogeneity within alliances which can be paralyzing as the firm gets locked into a closed social system, with less potential for cross-fertilization of ideas. Therefore, successful alliance strategies for many business objectives require both familiarity and diversity.

Diversity, however, also comes with a potential cost: too much diversity can create information overload, impede the decision process, lead to less practical outcomes, and over-exposure firms to risk more generally. The goal of an enterprise is to optimize between density of networks and diversity of potential alliance partners. Bridges – individuals and firms which span networks – increase the information flow to an enterprise, while retaining its quality and relevance. An effective alliance strategy includes such spanning of networks. “Organisations with management and collaboration networks that more often bridge structural holes [gaps in the flow of information between networks] in their surrounding market of technology and practice will learn faster and be more productively creative.” (Burt, p.223-224).

Social capital is not entirely transferable because it is rooted in individual relations among people and institutions. However, a third party with high levels of social capital with two parties can act as a mediator to foster good will between the two otherwise unconnected parties in a network, to facilitate more rapid accumulation of social capital between them, although ultimately their direct experience will determine the long-term level of social capital between the parties (Todeva and Knoke, 2002). Due to the leveraging effect of bridges, the stock of social capital within and between networks is greater than the sum of individual ties.

Case Study:

The Value of Diverse Bases of Social Capital in Stainless Steel Instruments Production in Pakistan⁸

The industrial district in Sialkot, Pakistan contains approximately 300 SMEs which produce stainless steel medical, dental and surgical instruments. Since the mid 1980's the export growth of the industrial district has averaged 10 per cent per annum, exporting mainly to North America and Europe, and exports are valued at over US\$100 million per year. The competitive position of Sialkot producers is so strong that many German manufacturers have been forced to enter into partnerships with Sialkot firms. Although the wages paid in Sialkot are lower than those paid in Germany, they are higher than in India or China, with wages paid above the average for similarly skilled labour in SMEs in other sectors. Yet the industrial district is highly competitive.

Nadvi stresses that the key to Sialkot's success is its specialized labour market, quoting a manager of a particularly successful firm: “[T]he skilled labour forced for surgical instruments making, particularly in the forging, filing and polishing processes, is only to be found in Sialkot. That is why we came and located here. We could not have done this business anywhere else.” In the cluster, firms can find skilled labour easily and

⁸ This discussion is based on a series of studies of the Sialkot industrial district by Khalid Nadvi.

workers can find work easily, as the reputation of each is known to everyone. This helps to clear the labour market and disciplines both sides to act in their mutual interest. Wage and process task rates are well known and fairly uniform across cluster, and wages are higher than in comparable sectors with comparable sized enterprises.

Although the competitiveness of Sialkot is due to the many advantages provided by the network, Nadvi stresses that alliances also have an important role: "External economies are only part of the gains that clustering potentially offers local producers. Deliberate joint action raises prospects of further competitive gains for the cluster as a whole." The most common forms of joint action are vertical, between producers and subcontractors, or between producers and customers.

According to Nadvi, both "traditional" and "modern" bases for social capital exist in Sialkot. "Traditional" bases include religion, race, caste family ties, and being a 'local. "Modern" bases, in contrast, include shared education, shared business experience, and shared business ethos." Nadvi explains the changing relationship between these two bases:

"Social ties and social norms are not fixed in time. Quite the opposite, they are evolving processes, constantly and consistently being shaped by economic and technical developments upon which they themselves are acting. At the same time, socio-cultural value sets do not necessarily act in a predictable or homogenous fashion on all segments of the cluster. They can legitimize exploitative practices, hinder cooperation between different segments of a cluster, and reinforce existing power asymmetries. Also, by acting as barriers to the entry of outsiders, social networks can intensify prevalent social and regional inequities. If the cluster is not sufficiently large, restricting outsiders can also limit cluster growth by limiting the pool of skills and capital that could be drawn upon. Finally, local social values and historically sedimented traditional technical knowledge can hinder and restrict the spread of new ideas from the outside. Thus, an inward-looking and homogeneous culture can make local agents more vulnerable to exogenous pressures, and 'strongly embedded regional networks [can] insidiously turn from ties that bind to ties that blind.'" (p.7, citations omitted).

Nadvi identifies some of the limits to traditional bases for social capital:

"[T]he bonds of being local may be vulnerable as the cluster develops and external actors (such as buyers and foreign producers), with whom local manufacturers share no ties, gain influence. Sialkot's surgical instruments producers are increasingly facing pressures to adopt international quality control and assurance standards in order to retain a presence in the highly competitive high-quality markets of the West. This requires changes. It is a more difficult task than simply acquiring new technologies. It implies reorganizing production and acquiring a new, quality-driven set of production values at each stage of production. External clients become a key information source, the eyes and ears of the international market, and the enforcer of quality control standards. This implies a need for stronger social bonds among agents with whom Sialkot's producers have no prior local experience.... This does not mean that local social networks, based on being local or being part of a family, are likely to disappear. It does suggest, however, that new ties with agents who lie outside the cluster are likely to gain in importance both in production relations and socially" (p.28).

This example explains why broader bases for social capital are essential. Broader bases for social capital, in particular a shared business ethos of mutual respect and commitment and non-opportunistic behaviour, both between firms, both horizontally and vertically, is particularly value for building social capital. A key “modern” basis of building social capital is the business ethos of a firm, which is shaped by its internal level of social capital.

THE ROLE OF INTRA-FIRM SOCIAL CAPITAL IN BUILDING INTER-FIRM SOCIAL CAPITAL

The quality of a firm’s internal relations plays a key role in managing important external relations. Takeishi (2001) conducted a study of the Japanese automobile industry to understand the key elements of effective management of relations with suppliers in order to outperform competitors who have similar close relations with their external partners. The study identifies certain organisational patterns, including communication and coordination, which enabled some automakers to gain higher component design quality over competitors even when the competitor was using the same supplier. The author concludes that “both internal coordination and external coordination are important for the firm’s competence....[and] the former facilitates the latter.” (Takeishi, p.433).

In a similar study of 127 Dutch SMEs, Beugelsdijk et al. (unpublished) have shown that the degree to which firms can build, maintain and productively use network resources outside the firm, such as alliances, clusters and value chain partners, depends on the firm’s internal characteristics, in particular its organisational culture and level of social capital. In other words, investment in social capital within the firm yields returns not only in the partnership with workers who produce the output, but also possibly in other partnerships which effect the quality and design of inputs, in strategic links with other firms in the same cluster, sector, or region, and in meeting customer expectations. Making the most of these partnerships, through investment in social capital, can greatly enhance a firm’s productivity and competitiveness.

The strong influence of intra-firm social capital levels on the firm’s level of social capital with other partners makes sense. The relationship between workers and managers in a firm is the most basic of an enterprise’s relationships; and unlike other relationships which may bring the partners together more sporadically, the worker-manager relationship is constant and central in the production process taking place within the firm. The process of communicating and cooperating on issues of mutual interest between workers and managers on a daily basis builds not only trust, but also the capacity to trust more broadly. This capacity predisposes these firms to build more cooperative alliances with other partners, and often lead to a first-mover advantage for such firms in generating productivity improvements. Furthermore, the outcome of firm external alliances depends ultimately on the workers in the firm who carry out the collaboration. In the example from the Japanese automobile industry, the engineers within the firm had to work closely with the engineers in the supplier firm who were redesigning the component; hence their commitment was vital to the success of the collaboration (Takeishi, 2001).

Cooperation between firms has to be based on broad worker participation within each partner to have a lasting and significant effect on innovation and competition. “Outstanding performance requires a high level of trust, commitment and cultural compatibility between partners...A common sense of purpose among employees will encourage them to work toward common goals.” (Rule & Keown, 1998, p.37).

All workers should be involved in continuous productivity and quality

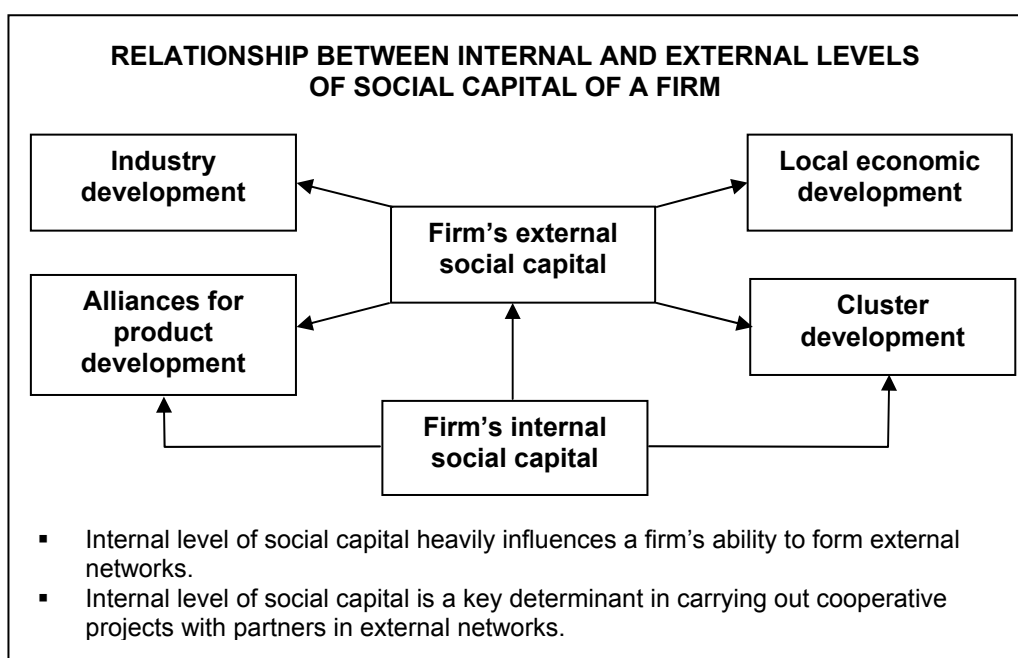


Figure 3

improvement, and in contributing to enterprise development in general. This is particularly true of teams engaged in strategic alliances for innovation. “Labour-management relationships are particularly significant in many industries because they are so central to the ability of firms to improve and innovate.” (Porter, 1999, p.109).

The advantages of broad worker participation from each firm in an alliance include:

- increased quality of information going into decision-making;
- greater consensus on decisions taken;
- increased ability to execute decisions quickly; and
- ability to identify potential problems more quickly and to develop more creative solutions.

Overall, broad participation leads to better outcomes of collaborative efforts (Lundvall and Johnson, 1994).

According to Asheim (2000), a dynamic, flexible learning organization for innovation “promotes the learning of all of its members and has the capacity of continuously transforming itself by rapidly adapting to changing environments by adapting and developing innovations. Such learning organizations must be based on strong involvement of workers within firms, on horizontal cooperation between firms in networks, and on bottom-up, interactive based motivation systems at the regional level and beyond....The inter-linking of cooperative partnerships ranging from work organizations inside the firm to different sectors of society will be of strategic importance in order to exploit the benefits of learning-based competitiveness.” (p.9).

Due to the linkages between intra-firm organization and inter-firm organization, the level of trust within the firm has a substantial impact on the level of trust between

alliance partners. Das and Teng (1998) explain the relationship between internal corporate (organizational) culture and effective management of alliances based on trust (which they term social control) rather than on control: “Unlike in formal control, the central element of social control is organizational culture—‘a system of shared values....and norms that define appropriate attitudes and behaviours for organizational members.’ Organizational culture provides a sense of control, for it unifies the way organizational members process information and react to the environment, which facilitates the achievement of a higher level of behavioural predictability...Managing alliance culture is a challenge because it is about blending and harmonizing two different organizational cultures.” High levels of internal social capital help an enterprise to be able to operate more on the basis of trust than control in its relations with other firms. The corporate culture and experience are shaped primarily by internal management practices, in particular how it is organized and how workers are viewed in the production process.

Lundvall and Johnson (1994) explain the effect of internal organization and management structure on a firm’s capability for learning, and hence the value added from a partnership: “[T]he firm’s capability to learn reflects the way it is organized. The movement away from tall hierarchies with vertical flows of information towards more flat organizations with horizontal flows of information is one aspect of the learning economy.” (p.39). Asheim develops this idea further: “flat and egalitarian organizations have the best prerequisites of being flexible and learning organizations; and industrial relations characterized by strong involvement of functional flexible, central workers is important in order to have a working ‘learning organization.’ Such organizations will also result in well-functioning industrial relations, where all the employees will have a certain degree of loyalty towards the firm.” (1996, p.10). Porter criticizes trend of “poorly trained employees who lack essential skills to assimilate modern techniques...[and]... are often not committed to their profession and partly because their company is not committed to them.” (1999, p.528). The combination of stability in intra-firm relations, which involve the greatest investment, and diverse external relations to stimulate innovation and learning strengthens a firm’s competitive position.

Working conditions play a central role in the learning firm by fostering worker participation. Brusco (1996) explains how the industrial district of Emilia-Romagna was “efficient and thus competitive on world markets, in which efficiency and the ability to innovate were achieved through high levels of worker participation and were accompanied by working conditions that were acceptable.” p.19 A shared culture based on the shared appreciation of the vital role of workers in the production process, as opposed to shared family, identity, community or experience, smoothes alliances between dissimilar firms, and permits more diversity for greater information and innovation.

In alliances concerning particular projects, different routes for the flow of information reduce the hierarchy of communication, and less filters increase the quality. In networks, workers provide weak ties between firms for conveying information on the quality of management of firms. They also act as a channel for transfer of technology and information, and in particular circumstances workers can play an especially important role. Nadvi (1997) explains how in the Sialkot cluster, training is done through informal apprenticeships with no cost to the employers, which creates a strong culture of transmission of knowledge about technology and processes through workers. Workers play a key role in any innovations or improvements, within and between firms. “Ideas about new technologies, products and methods seep out of the factory walls with information passing through workers and subcontractors...The importance of the local availability and easy flow of information as a critical location gain cannot be

overstated...the rapid flow of information in the cluster ensures that firms are able to reduce transaction costs and minimize uncertainties regarding export markets by assimilating information that flows into the cluster from the experience of other local producers.”(p.13).

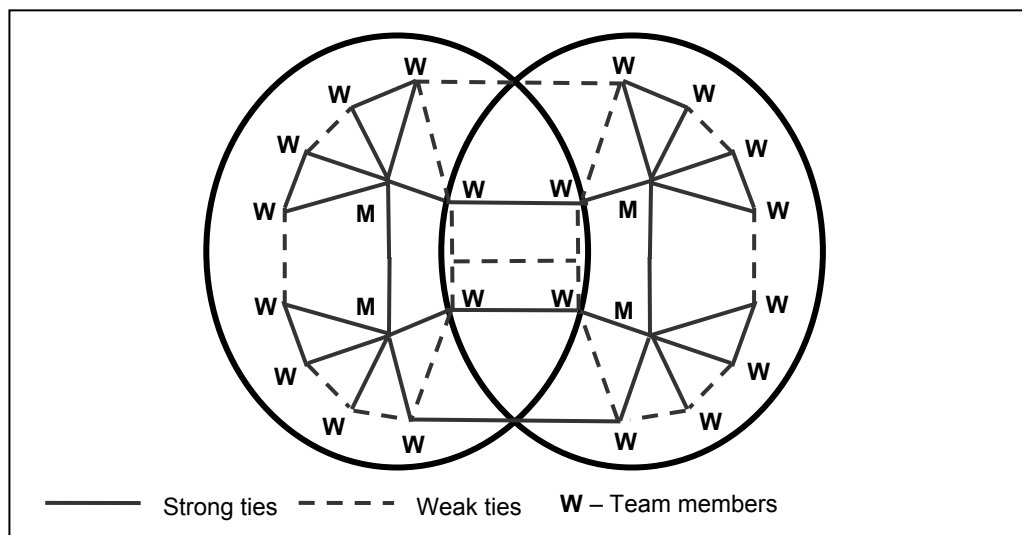


Figure 4: The Role of Workers and Managers in Creating Bridges Between Networks

Decent working conditions within an enterprise signal that the competitive advantage of a potential partner is in superior management rather than short-term gain through poor treatment of workers. Decent working conditions also signal that management has a longer-term investment horizon and business strategy. This indicates a more reliable longer-term partner with more potential for information and technology transfer, and is important in many forms of alliances where the full return on investment in developing a partnership does not manifest in the short-run.

Although higher quality jobs may seem a luxury for businesses in increasingly competitive markets, in fact it is essential for firms and clusters to be able to constantly adapt and innovate. Asheim explains:

“[The] competitive advantage of coordinated market economies seems to be found within a further development and upgrading of existing industries and technological trajectories (e.g., manufacturing industries), which are characterized by the interactive innovation model, and where long-term cooperation between workers and firms as well as between firms and the knowledge infrastructure is of strategic importance to promote technological development through interactive learning. This could explain the seemingly paradoxical situation of low technology industries (e.g. the furniture industry) flourishing and reproducing their international competitive advantage in high cost countries such as Denmark, Germany and Italy...[T]he diffusion of knowledge is not dependent on techno-economic sub-systems, but on the socio-institutional framework...which points to the importance of non-economic factors such as culture (social capital)...What

this broader understanding of innovation as a social, non-linear and interactive learning process means, is a change in the evaluation of the importance and role played by socio-cultural and institutional structures in regional development, from being looked upon as mere reminiscences from pre-capitalist civil societies (although still productive), to be viewed as necessary prerequisites for regions in order to be innovative and competitive in a post-Fordist learning economy” (p.4).

Case Study: The Link between Intra- and Inter-Firm Social Capital in the Shoe and Leather Industry in Brazil⁹

Bazan and Schmitz describe the evolution of social capital within firms and within the Dois Irmaos shoe and leather industrial district as a whole, and how it relates to changing conditions of work.

In the first phase of development, Dois Irmaos was pre-industrial, with production based on small-scale handicraft. Social capital was based on ethnic identity and reputation for trustworthiness and selfless behaviour. Workers initially came from same local rural region as entrepreneurs and shared extensive ties.

During the 1940s to 1960s, artisans formed partnerships to set up firms because they lacked the financial resources to do so individually. This cooperation helped not only to mobilize resources but also to overcome barriers to effective use of resources through the transfer of technological know-how, marketing, etc. through the sharing of knowledge and information, borrowing and lending of materials and tools. There still was extensive competition, but the social norms pushed producers to focus on constructive competition which was not at the expense of either the workers or other firms, so that everyone remained committed to the success of the cluster. In both the first and second phases, the structure of the enterprise was flat, with workers and entrepreneurs working alongside each other. This shared socio-cultural identity and mutual dependence lead to a high level of trust:

“Reciprocity and cooperation in intra-firm relations took the form of a dense market of economic and social exchanges between entrepreneurs and workers...The type of exchange varied according to the individuals’ particular demands or assets. Workers, for example, felt that they received from entrepreneurs the opportunity to maintain their contact with the land, or at least the opportunity for their families to do so. Some workers would try to start their own enterprises and were often helped by their employers; most of the new firms that were emerging in this period were owned by ex-employees of shoe manufacturers. In addition, workers received economic and social support from entrepreneurs ranging from loans to build up their houses to providing mediation in family conflicts. In return, workers were highly committed to their jobs, and entrepreneurs benefited in a number of ways as a result of workers’ loyalty. For example, workers were understanding when there were payment delays; they were prepared to work overtime so that deliveries could be met; and absenteeism was low.” (p.27, citations omitted).

⁹ This discussion is based on a study of the Dois Irmaos industrial district by Bazan and Schmitz.

Towards the end of this period, Dois Irmaos entered a period of export growth. Initially, social capital remained high within firms. “[I]n the expansion of production for export, firms were able to cope with the new demands of international markets because their workers cooperated. Indeed, workers shared the excitement of local products being exported to the US and Europe...Social capital remained a feature of intra-firm relations.” (p.28). But the increasing asymmetry of power due to rapid economic growth transformed reciprocity and voluntary cooperation into patronage and authoritarian and coercive management. Consequently, the stock of social capital eroded in these firms due to controlling strategies crowding out social capital.

The third stage, during the 1970s, was characterized by very rapid growth of industry which was supported by the development of ‘local corporatism’ based on a sense of belonging to an entrepreneurial community, with associations, shaped not only by common ethnic ties but also by common economic interests. This basis of social capital for establishing cooperation between firms had a more direct impact on the economic outcome for firms. This broader basis complimented the networks based on more homogeneous ties. Forms of cooperation included cooperation in taking products to trade fairs, bringing foreign buyers and journalists to the region and seconding workers and lending machinery and raw materials when a firm was under pressure from orders. For example, when a firm which produced a large consignment of boots with a particular defect had to redo them in a short period of time, other firms offered to help by lending workers and inputs. When a local firm burned down, other local firms helped to rebuild it. The entrepreneurs and workers shared the belief that failure of any one firm in the cluster threatened the survival of them all.

By the late 1980s, global market demand had caused very rapid changes in Dois Irmaos. Export agencies assumed an increasing role in product development, quality inspection and technical assistance, and bonds with other producers became less important, particularly due to a substantial increase in price competition within the cluster from the auction system used by export agents. Furthermore, the boom also did not benefit all firms equally; some grew faster and became dominant in the cluster, marginalizing smaller firms. In parallel, a more vertical division of labour developed between producers and subcontractors. All of these changes weakened the commitment of firms and workers to the well-being of cluster as a whole.

Social capital between workers also eroded, as rapid growth lead to a shortage of labour and an increase in the number of migrant workers in the area. Migrant workers were not easily assimilated, were treated less well, and formed their own networks. The changing composition of the workforce, and growing gap in benefits from growth for workers and entrepreneurs (rapidly increasing profits but stagnating or declining wages) lead to the rise of a class identity which replaced ethnic identity. “Workers began to fight for better wages and conditions of work, and became more organized in trade unions. Towards the end of the 1980s, a series of strikes took place in Dois Irmaos that illustrated the growing conflict between workers and entrepreneurs...[Entrepreneurs] began to use their own networks in order to protect themselves against increasingly organized labour. The held meetings and exchanged information in order to control workers’ behaviour, establish wage ceilings, know workers’ previous history, or even to put pressure on workers not to join trade unions” (p.29-30).

Rapid growth led to sense that firms could make it on their own, without needing each other or their workers. Firms forgot about the essential role social capital had played in getting them to that stage of rapid growth, and stopped investing in social capital. The only motivation for workers was the threat of job loss; the culture of corporatism, in which

they had a sense that they belonged to a greater economic endeavour benefiting the entire region, was eroding. As long as business was booming, that was not a great problem for the enterprises. But competition from China changed everything.

In the late 1980s, rapid growth in exports ended, due to China's entry of into world market. Buyers now had more leverage to demand shorter delivery times, to place smaller orders up front with less commitment to the final total quantity, and to insist on quality improvements. Bazan and Schmitz explain how these changes impacted firms' social capital investment strategies:

"Management and workers needed to pull together to achieve increasingly tight delivery schedules. To increase product quality, workers could make an essential contribution by suggesting ways of improving production. To achieve lower product default rates, it was essential to raise the belief among workers that they shared the same common goals as entrepreneurs...However, cooperation and reciprocity between firms and their workers could no longer be based on the traditional socio-cultural ties...[F]irms have introduced a series of strategies to reduce absenteeism and labour turnover, and increase workers' involvement in the firm. This has required replacing old management strategies, based largely on authoritarianism, by more participatory processes of decision-making, in which there are channels whereby workers' suggestions can be taken into account" (p.30-31).

Bazan and Schmitz describe how, following courses and meetings on shop floor problems and changes in the international market, one firm received 217 new ideas in one year from workers on improving production processes or conditions of work. Workers are rewarded for their suggestions by monetary or other prizes, and give presentations in management meetings.

The crisis created by increased competition forced entrepreneurs to go back to investing in social capital; in response, workers began investing in social capital as well, largely motivated by the need to protect their jobs. But the basis for social capital changed, from traditional, based on ethnicity and local ties, to modern, based on valuing the central role of workers in the production process. This basis for intra-firm social capital in turn revived investment in social capital between firms sharing the same ethos. "The regeneration of social capital in Dois Irmaos has been based on a new form of social identity: a sense of being part of an industrial community in which workers are a vital part" (p.31).

Bazan and Schmitz stress, however, that problems continue, as it is difficult to change from and authoritarian to cooperative management style. Firms are under intense pressure; a dependence on control rather than trust often remain, but control for worker behaviour shifts from management to working groups; too many firms still strongly resist trade union representation; and there is limited gainsharing, with only modest increases in wages and investment in training.

Nonetheless, changes in attitudes to cooperation and partnership are significant, and are helping to shape changes in relations between producers and suppliers. A strong partnership with suppliers is essential since they critically impact quality and the speed of production. Now producers cannot drop suppliers easily, and instead must invest to work out problems and strengthen suppliers' capacity. "Some producers are consciously investing in their relationships with suppliers, in order to engender mutual commitment....new types of joint action have emerged between firms and their suppliers:

mutual visits, the sharing of technical information, and the organizing of forums to discuss problems...attempts to modify patterns of negotiation in order to achieve more realistic targets in prices, quality and delivery times... not all enterprises have adapted the new practices, but those who have are beginning to see the benefits.” (p.31).

The outcome of these changes appears to be positive for those firms who are consciously investing in social capital. This case shows that not all bases for developing social capital are equal. Social capital based on ethnicity and local ties is less resilient under pressure because based on similarity rather than the inherent value of each partner. Yet diversity, which increases innovation and learning, is essential for competitiveness in global markets.

The Role of Social Capital in Value Chain Management

For firms to be competitive, they need to focus on what they do best and work closely with their value chain partners to promote a culture of productivity in the peripheral, but nonetheless important, aspects of the business. Efficient value chain management is becoming a very important area of competitive advantage as inefficiencies within an enterprise are eliminated. Better value chain management is essential both to minimize wasted time, materials, and money, and to ensure quality. At the same time, value chain partners can benefit greatly from the transfer of know-how and building up of experience from partnerships with the primary firms driving the value chain. Gibbon (2000) observes that chain coordination leads to genuine increases in efficiency and cost reduction, hence it avoids the zero-sum approach where profits are derived solely at the expense of subordinates in the chain. However, to avoid having the bulk of gains accrue only to the principle, producers in the chain must take action to move up to more value-added activities.

Value chain partners—suppliers, distributors, after-sales service providers, etc.—should be selected carefully and a close working relationship should be established to ensure volume, quality and timeliness of delivery. Firms should invest in building up the competencies of their first-tier value chain partners by sharing organizational and management practices to ensure that decent work principles are applied throughout the chain. Furthermore, firms should ensure that first-tier partners implement decent-work based management practices among their first-tier partners, etc. In this manner, pro-productivity management practices cascade through the value chain, ensuring maximum productivity at every link. This is important not only for maximizing productivity, but also because customers increasingly view the value chain as a single entity for which management of the principle enterprise is responsible with respect to human rights and sustainable development. The increasingly transnational nature of production means that universally recognized international labour standards are becoming an essential reference point for responsible value chain management, beyond their role in enhancing productivity (see Box 3).

Effective management of the supply chain shares the same key elements as effective management of the firm. The most important element is social capital. The ability of individual firms to move up the chain to more profitable activities depends on the level of trust between the buyer and the producer. Humphrey and Schmitz (2000) explain that governance of producers in the supply chain is expensive. If alternative and cheaper ways of coordinating activities while containing risk can be devised then buyers will use them, enabling producers to move up to more value-added activities such as design, marketing, etc. If the buyer is more confident and feels that the risk involved in giving the producer more autonomy is not significant, she will prefer to have a more

Box 3

B&Q Retailers

Robins and Roberts describe the experience of B&Q, a large UK retailer, in managing its supply chain for environmental and social sustainability, as a result of public pressure. “Wherever possible B&Q is attempting to ensure that its direct suppliers take on board environmental and social concerns and pass them back along the supply chains, thereby spreading the responsibility and reducing the cost to B&Q and the need for external verification...B&Q stresses the importance of building trust and mutual respect with suppliers” to maximize the impact of this process.

Source: Roberts (2000).

autonomous producer doing more value-added activities. Gereffi (1997) has shown that East Asian producers were able to move up the value chain to higher value-added activities by establishing close ties with U.S. retailers and marketers. Through “learning by watching” they benefited from partnership with these foreign partners to build East Asia’s export competences, which depended on the performance trust built up between the US and East Asian partners.

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There are also more direct ways in which principle firms can help producers to move up to more value-added activities. For example, Kent (2002) describes such a partnership in the creation of the Quebrada Azul Cooperative in Venezuela. With support from a local buyer in the form of financing and technological transfer, these farmers were able to enter the organic and fair trade markets, which are higher value-added. Buyer imposition of ecological standards, if done in a socially sensitive manner, also can have a beneficial effect on labour relations. Kent (2002) recounts an interview with the managing director of one of Kenya’s most successful flower growing companies. The manager initially resented the imposition of environmental standards by his UK supermarket buyers. After a period of transition, however, the company was able to reduce its costs from

pesticides and the workforce benefited from reduced exposure, improving worker health, attendance at work, morale and productivity.

Using evidence from the Tamil Nadu automotive industry, Tewari (2000) shows that:

“... it is not inevitable that global assemblers located in a developing country market will necessarily choose global sourcing over local supplier development...[E]mployment and income are not the only benefits of a dynamic high-end industry such as automobiles...[T]he diffusion of technology and new knowledge that this industry has the potential to generate can move the region as a whole up the learning and technological frontier through crucial impacts on human capital development across related industries. In Tamil Nadu, for example, the suppliers who are doing very well are those who have been able to continually upgrade their technical capacity through joint ventures or technical tie-ups with overseas partners much before the recent arrival of multinational auto assemblers” (p.4).

THE ROLE OF SOCIAL DIALOGUE IN CULTIVATING SOCIAL CAPITAL

Social capital is formed through regular interactions centred around an issue, event or activity. Social dialogue between participants on issues of common interest is one of the most effective means of creating social capital. Social dialogue focuses participants' attention on their interdependent roles, encourages open and honest communication, and provides a systematic means for addressing particular issues in a way that takes into account the needs and concerns of all of the parties. In addition, the regular contact between dialogue partners encourages each party to think more broadly about how their collective actions can benefit everyone concerned.

Various international labour standards addressing productivity and employment promotion stress the importance of bipartite, tripartite and tripartite-plus social dialogue to build extended networks and facilitate collaboration and sustainable development. The characteristics of social dialogue for productivity and competitiveness (SDPC) make it particularly useful for cultivating social capital in enterprises.

A strong commitment to SDPC in the workplace helps to jumpstart the process of moving out of a low social capital trap by providing badly needed credibility. In SDPC, management commits to discuss issues, share information and devolve some responsibility to workers. This commitment gives management the credibility which is lacking in the low social capital trap so that workers are less likely to view productivity improvement strategies with suspicion. For their part, the commitment of workers to share information, to accept the need for change, to recommend areas for improvement, and to address problems constructively gives them credibility. Collective bargaining, a particular form of social dialogue, can contribute greatly to closing the credibility gap through establishing binding agreements about the procedure for resolving disputes which may arise and for sharing the gains from productivity. Although neither party can ever be one-hundred percent sure of the other's motives and intentions, they are more likely to feel comfortable with the mutual commitment that SDPC requires than with either party acting alone.

The flexible nature of SDPC allows it to provide simultaneously a structure for labour-management relationships and fluidity to respond quickly when particular problems arise. SDPC combines:

BREAKING OUT OF THE LOW SOCIAL CAPITAL TRAP

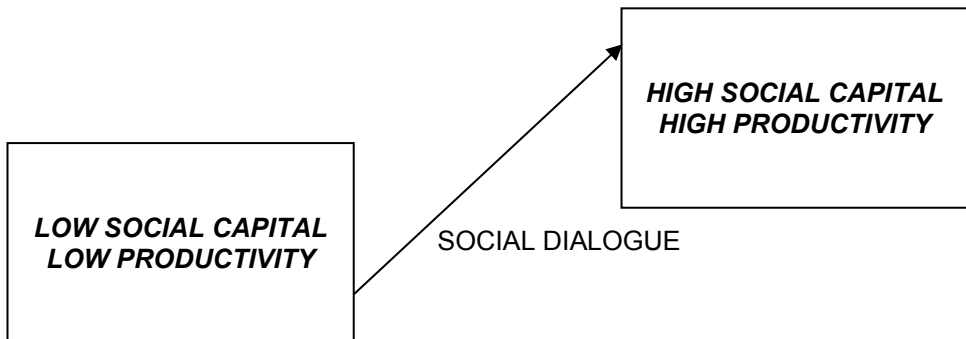


Figure 5

- periodic dialogue between representatives of management and workers concerning enterprise-wide strategy.
- on-going dialogue within and across work teams.
- ad hoc dialogue in committees formed to address particular issues.

This combination of periodic, on-going and ad hoc dialogue ensures that productivity improvements are systematic, comprehensive and applied routinely at all levels, and yet are still open to changing circumstances. In such a manner, the institutionalized aspects ensure that SDPC is sustainable, and the ad hoc aspects ensure that it has a dynamic element which helps to keep the firm agile.

Periodic dialogue occurs in bodies such as labour-management steering committees or strategic planning councils. On-going dialogue occurs in bodies such as quality control circles. Ad hoc dialogue occurs in bodies such as task forces and temporary committees. The on-going nature of SDPC at these various levels enables an enterprise to slowly but surely build trust, communication and cooperation through the accumulation of experiences working together at all levels.

SDPC has the potential to engage workers and managers at all levels, from on-going dialogue on the shop floor between workers and line managers, to periodic dialogue between workers' representatives and the highest levels of management. SDPC can help an enterprise to build a shared vision that permeates the entire organisation so that proposed improvements are supported by everyone, and can be introduced in a systematic and comprehensive manner.

SDPC is built on a commitment to productivity and competitiveness which has the potential to transcend race, religion, class, ethnicity, sex or other group identity. This inclusiveness is a very important feature of SDPC which makes it particularly valuable for building social capital in the enterprise. Too often, instead of investing in social capital, firms free-ride on the social networks which exists in homogenous communities, and discriminate against people who are not from that community. Although this brings social capital cheaply to the firm, it is the wrong sort of social capital for productivity and competitiveness. Levin and Cross (2003) explain that the goal of good management is to

Box 4

Case Study: SDPC for Commitment to Productivity Improvement At all Levels

A manufacturer established in 1987 produces jewellery, watches, clocks and bracelets. From the beginning, management had adopted a hierarchical approach to dealing with workers and the unions, with the result of poor communication and inefficient production methods. The firm decided to use social dialogue to improve the productivity and competitiveness of its jewellery division because it had a vision to become the top producer in its class in India.

After the introduction of a social dialogue process, the hierarchy began to break down, and employees at various levels began to interact with management at various levels. By working together at all levels, managers and the union were able to introduce a modular production design which also called for multi-skilling of the workforce. This reduced the cycle time of production and increased product quality, as the job no longer felt monotonous and workers stayed engaged in their work. In addition, social dialogue brought about a change in management thinking about the value of the opinions and suggestions from all the workers, and has resulted in a good working atmosphere, with a high level of understanding and co-ordination between the two parties from the shop floor up to senior management.

As a result, the division, which had been a loss making unit since its inception in 1993, finally started making profits.

Source: Selvakumar, paper prepared for the Institute for Social Studies, the Hague (2003, p.17).

cultivate “weak ties” that open up communication between groups rather than “strong ties” within a group. This is because the quality of information, ideas, and commitment is much richer across a diverse group of people with varied backgrounds, experiences, and ties to a range of groups in the community than within a tight-knit and insular group which shares the same background, experiences and social network. Furthermore, using discriminatory practices to avoid investing in social capital is a false economy because the enterprise loses access to the best talent across groups in society. And basing hiring and promotion decisions on group membership rather than merit sends exactly the wrong signal—merit-based systems of hiring and promotion are essential to recruit and motivate the best workers and managers.

SDPC instils the habit of listening with respect to the other partner. As each party begins to listen more to the other, they begin to break down stereotypes and prejudices which impede trust-building. They are then able to move past blaming each other to start working together to improve productivity. As a participant in a bipartite SDPC workshop in South Africa put it, "What impressed me was the willingness of unions to cooperate.

We moved away from the old acrimony of accusing each other of a lack of productivity. In fact, workers were correct to say that their productivity had improved

while capital's productivity has not been good."¹⁰ The ability to see one's own weaknesses in contributing to productivity is an important first step towards improvement.

Box 5

Case Study: SDPC for Diversifying Social Networks

A former state-owned enterprise in Nepal provides an example of a firm which has successfully used SDPC to shift from social capital built on homogeneity to social capital built on diversity within groups. This enterprise employs 1925 people, who are represented by one union. Traditionally, workers within units came from the same village or locality. While this homogeneity provided some social cohesion, it also created tremendous productivity problems due to mass absenteeism during the time of festivals which shut down units. Using SDPC, workers and managers reorganized work to reduce mass absenteeism and implemented an incentive scheme to reduce other forms of absenteeism, bringing it down from 15 percent to 8 percent. The enterprise also introduced a bold new initiative to recruit women machine operators, a position which was traditionally occupied only by male workers. The enterprise has recruited 62 women machine operators to date. Due to these measures, the company has increased its daily output 24 per cent. Other reported benefits include increased productivity, enhanced company goodwill, increased quality, enhanced worker job security, and increased workforce discipline. However, the participants felt that further progress could have been made if group-ism had been further broken down, and if there had been greater awareness of the advantages of having social dialogue and a greater commitment on the part of management to share decision-making power.

Source: Manandhar (2000).

In SDPC the partners identify problems which are hindering productivity, devise a strategy for resolving them, and share responsibility for carrying out the project together. The product, productivity increases, is very concrete, even if sometimes difficult to measure. This focus on a tangible outcome from which both parties stand to gain improves the chances of bringing them together to the table in the first place; and of keeping them committed to the process, despite difficult moments they will surely encounter on the road from a low level of social capital to a high one. Without a specific focus and tangible benefits, dialogue risks quickly losing momentum.

SDPC emphasizes the importance of sharing not only the responsibility, but also the benefits. Gainsharing is an important means of motivating people to take part in productivity improvement. Productivity improvement relies on the partnership of management and labour in making the best use of capital and technology. Therefore, all parties have to be fairly rewarded for their contribution to the overall increase in productivity to ensure that everyone is sufficiently motivated to carry out their critical role

¹⁰ See, "Tackling workplace change", Dialogue, Vol. 1, No. 1. Full text available at: <http://www.nedlac.org.za/docs/dialogue/1997/wrk%20change.html>

as providers of capital, organizers of work, or frontline workers. Through SDPC, in particular collective bargaining, the partners can establish a pre-determined formula which both view as fair. Although gainsharing often takes the form of distribution of increased profits, other important forms of gainsharing include increased job security, improved working conditions, and better opportunities for advancement. Workers may place equal or higher priority on these other forms of gainsharing; direct dialogue between the partners would make these preferences known. Furthermore, gains can be shared directly with the community (See Box 6).

Box 6

Gainsharing: Indirect Productivity Gains through Direct Benefit to Workers

A tea plantation in Sri Lanka used SDPC to establish changes which were of direct benefit to workers, which in turn indirectly benefited the plantation. Through the process of dialogue the partners identified key concerns of workers which also had either a direct or indirect impact on productivity, and took action in bipartite committees. These changes included:

- Securing the provision of clean water to 200 families of workers
- Working with the Electricity Board to provide electricity to the homes of workers
- Constructing roads in the community
- Introducing a banking system for workers where their wages are directly deposited
- Providing education to the workforce
- Improving the nutritional status of workers

Participants reported that the major benefits were the increase in income due to productivity enhancement measures introduced through the dialogue and better access to management.

Source: Report of the third SAVPOT Workshop in Sri Lanka, 2002.

Information on the ILO South Asia and Vietnam Project on Tripartism and Social Dialogue (SAVPOT) project available at:

<http://www.ilo.org/public/english/region/asro/bewdekgu/savpot/about/>

The synergistic combination of an emphasis on communication and a focus on specific outcomes expands a firm's capacity to improve productivity and competitiveness in a way that neither element could alone because it creates an atmosphere of mutual accountability for progress made. An action plan drawn up in SDPC assigns specific responsibilities to each partner, and the progress of each side in fulfilling their responsibilities can be assessed. The on-going two-way communication channels established in SDPC imply that each partner must report on progress made in implementing an improvement and on problems encountered. Consequently, both labour and capital are expected to contribute, increasing total factor productivity.

Although the product is very important, the process of SDPC is valuable itself. Productivity improvement is about introducing changes, both large and small, to do things better. In a globalizing world the need for change has become nearly constant. However, to succeed in introducing change workers must be engaged. SDPC ensures that workers are engaged because they are involved in all facets of the process, including initiating change. The partnership created in SDPC gives workers a sense that they have some control over the process of change—change evolves from something that happens to them to something that they help make happen.

Box 7

Case Study: SDPC Creates Worker Involvement in Change

An Asian luggage maker provides a good example of this shift in how workers perceive change. Traditionally, this company did not have particularly high levels of social capital in the enterprise, but managers and workers decided together to use social dialogue to build trust, communication and cooperation between workers and managers. The productivity goal they set for themselves was to do things right the first time.

As level of trust, communication and cooperation increased in the firm, assembly workers became more willing to participate in product design to minimize assembly complications. As a result, the company was able to reduce the number of workers required per lot of frames (in one case halving the number), and was able to do away with inspecting each unit and instead to introduce quality sampling. The firm also introduced a system for registering losses on the production line; and it carried out a study on weight optimization with the involvement of workers, which has helped to reduce the cost of each piece of luggage. With better communication the company was also able to establish an open register for workers to note any problems they face on the shop floor so that the necessary action could be taken.

Most importantly, with increased trust, management and labour together worked out a plan to reorganize the work in various departments to reduce non-value adding jobs. This objective was achieved by undertaking continuous and ongoing steps to identify the non-value adding jobs and replacing them by value adding jobs. The organization has been highly successful in this task as it has been able to reduce waste in workforce deployment. The displaced workers have been placed in the new value-added jobs.

Source: ILO/EFI report, SAVPOT, 2001.

Social dialogue at all levels of a firm build upon and reinforce each other. Periodic dialogue at higher levels (in labour-management steering committees or strategic planning councils, as well as during collective bargaining) creates an environment which supports and fosters dialogue. The active participation of senior management and trade union leaders signals a deep commitment by both parties which strongly influences the attitudes and behaviours of managers and workers on the shop floor. Information and

experiences coming out of social dialogue in the course of daily interaction between lower levels of management and workers feeds back into the periodic dialogue at the senior levels. The ad hoc dialogue arises out of problems or challenges identified in the periodic or on-going dialogue; and the outcome is fed back into the dialogue at those levels.

Periodic dialogue occurs in bodies such as labour-management steering committees or strategic planning councils. On-going dialogue occurs in bodies such as quality control circles. Ad hoc dialogue occurs in bodies such as task forces and temporary committees. The on-going nature of SDPC at these various levels enables an enterprise to slowly but surely build trust, communication and cooperation through the accumulation of experiences working together at all levels.

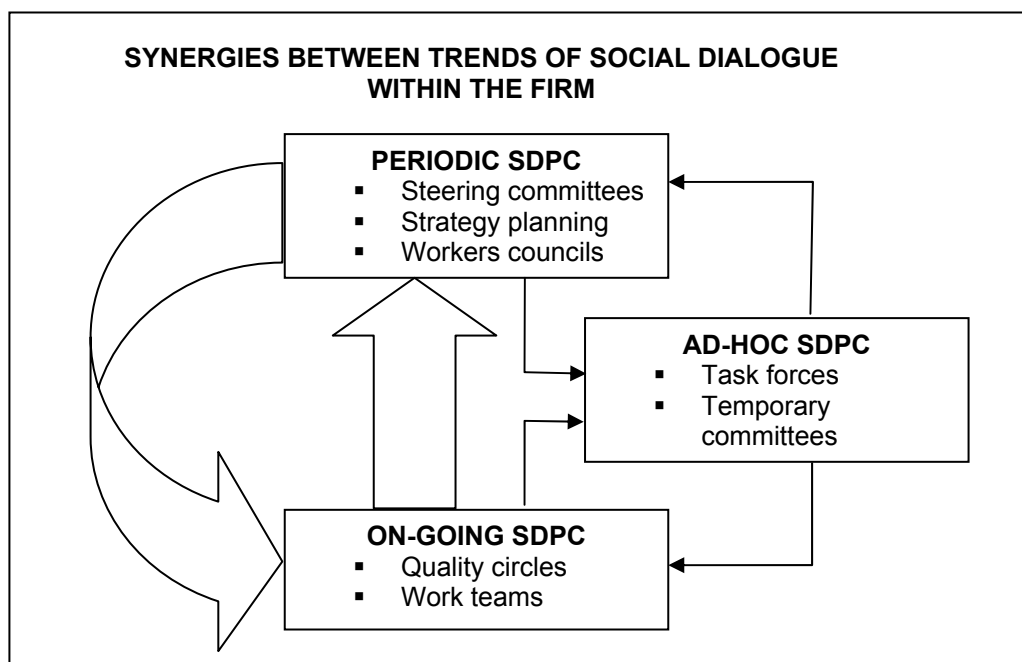


Figure 6

SDPC in Clusters, Sectors, Regions and Nations

Many of the characteristics of SDPC which make it so useful for building social capital at the firm level also exist at the mezzo and macro levels of an economy:

- SDPC within alliances, clusters and sectors, industries and at the national level is flexible. Partners can establish both periodic dialogue at higher levels of representation, and more ad hoc dialogue to address particular issues which arise.
- SDPC is a more inclusive way of building social capital. It eschews groupings based on discriminatory categories, and instead focuses on economic interests. As unions expand their representation in the informal sector and employer organisations increase their membership among small and medium enterprises, or as participation in SDPC is opened up directly to these groups, it has the potential to be even more inclusive. As the process becomes more inclusive, the richness of the

social capital increases.

- SDPC is a more credible way to build social capital. It involves a formal mutual commitment to the process, and establishes on-going two-way communication channels which encourage each party to follow through on its commitments.
- As within the firm level, SDPC is valuable both as a product and as a process in itself. SDPC involves workers and employers as equal partners from the outset. The valuable information they possess is essential for devising the most appropriate joint projects, programs or policies. And their participation in formulating strategies ensures that they will be committed to carrying out the necessary changes.
- Lastly, as within the firm, mezzo and macro SDPC can help to breakdown prejudices which hinder both cooperation and honest self-evaluation of one's own areas for improvement, to ensure that everyone contributes to improving productivity and competitiveness.

Box 8

Coordination for Competitiveness: An example from Wage Bargaining

Ireland's economic fortunes are linked to its successful integration in the international economy, as it depends heavily on exports. About 50 percent of employment in Ireland's thriving manufacturing sector is in multinational companies (MNCs). For many years, the presence of MNCs in Ireland was responsible for wage inflation. MNCs are, on average, more scale- and technology-intensive than domestic companies, and hence more productive. With decentralized wage formation, MNCs who were able to pay higher wages put pressure on other companies to follow suit, even when productivity growth in other sectors did not match the pay raises. This wage inflation seriously undermined the competitive position of the weaker sectors and harmed employment growth.

The social partners sat down together to discuss this problem and agreed on a solution. They decided to set wages at the national level for all sectors of the economy. Increases were tied to the ability to pay off the least dynamic sectors. Consequently, the competitive position of Irish industries improved generally, and MNCs and other fast-growing companies benefited from tremendous gains in competitiveness. FDI began to flood back into the country and employment rose, not just in the foreign manufacturing sector but in the domestic manufacturing and service sectors. The latter sectors benefited from the derived demand that ensued from the MNCs boom, and Ireland is presently in full employment.

Source: Baccaro (2003, p.6)

SDPC at the mezzo and macro levels has the additional benefit of facilitating coordination in certain key areas which could enhance the competitiveness of a cluster, sector or economy as a whole. For instance, a cluster might benefit from developing a

reputation for corporate social responsibility, which could attract investment and strengthen the sector as a whole. However, the socially responsible activity of only one firm in the cluster is less likely to attract investors. Coordinated effort is needed. Through SDPC, the firms can coordinate their efforts to improve the reputation of the cluster.

Government often participates in mezzo and macro level SDPC. The government's unique position of authority and influence give it an important role in promoting social dialogue and productivity and competitiveness. A survey of Canadian enterprises revealed that:

“despite evidence that firms involved in worker participation tended to perform better, a majority has still not adopted a co-operative workplace model. In light of this apparent "market failure", there was an expressed need for a third party like government to broker with labour and management to experiment with new ways of doing things together. There was also moderate support for a federal presence for reasons of equity, efficiency and international competitiveness” (Canadian Government, 1998, p.3).

With government participation, SDPC can address important issues influencing the spread of social dialogue and measures to enhance productivity, and can influence related legislation, policies and programs.

Tripartite productivity organizations provide an especially important forum for tripartite dialogue, as they typically combine research, awareness raising, and technical expertise on productivity improvement. The network they create also helps to spread best practices within the country, and to spread best practices from other countries through their links to other NPOs. NPOs may also evolve out of tripartite dialogue (See example, Box 9).

Box 9

SDPC in Productivity Centre: Changing the Culture to Improve Productivity

In the early 1990s, Barbados faced an economic crisis and had to enter into an IMP stabilization programme. This programme called for, inter alia, devaluation of the currency. Having witnessed the catastrophic consequences of other such devaluations, workers, employers and the government were united in their opposition. Although relations between these three partners had been acrimonious, they set aside their differences and engaged in social dialogue to seek an alternative to devaluation. Based on this experience of social dialogue, the partners decided to establish in 1993 the tripartite Barbados National Productivity Council (BNPC).

From: Imoisili and Henry (2003)

The outcome of social dialogue at the mezzo and macro levels reinforces social dialogue at the micro level. The policies and programs directly influence and reinforce social dialogue and productivity improvement within firms which are already active.

Firms which have not yet gotten started on SDPC become encouraged to do so, through awareness raising and incentives created by policies and programs. SDPC at the firm level, in turn, reinforces dialogue at higher levels, as the experiences of these firms inform and shape discussions of policy, programs, etc.

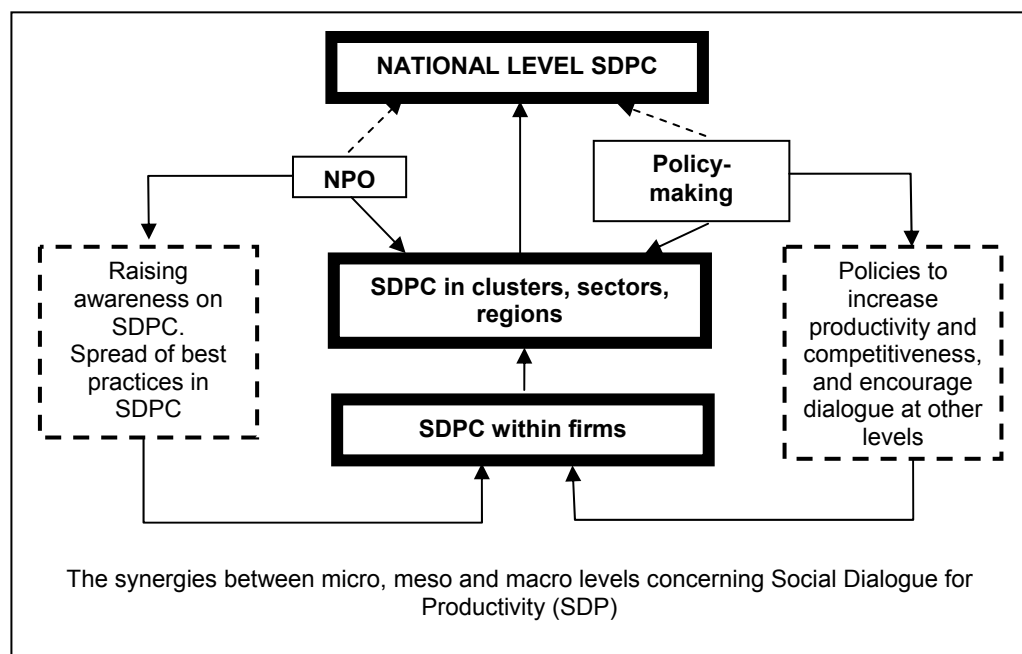


Figure 7

CONCLUSION

High levels of social capital enable an enterprise to make the most of its economic and human capital. Social capital also plays an essential role in improving the competitiveness of clusters, sectors and economies.

Empirical evidence shows that decent-work based managerial practices can have a substantial and long-lasting effect on productivity of enterprises. However, coordination failure and limited information have resulted in many firms remaining stuck at a sub-optimal level of productivity based on outdated managerial practices.

A business ethos which recognizes the central role of workers in the production process, and emphasizes the importance of working conditions for building social capital in the firm, can serve as an effective basis for more diverse networks for richer innovation, productivity improvement, and enterprise learning.

Good working conditions signal to potential alliance partners that the competitive advantage of the firm comes not from opportunistic behaviour towards workers, but from superior management practices. Superior management and commitment to workers provides stability within the enterprise and signals that the firm is a lower risk, with greater potential for learning and innovation. Such a basis for social capital between firms also allows for more diverse networks and alliances, which have greater potential returns on the investment in cooperative projects, and is more resilient to market shocks.

Good working conditions:

- Promote extensive involvement of all workers
- Increase stability within the enterprise
- Signal management's experience with communication and cooperation, which are essential for alliances
- Signal in a highly credible manner that the firm is not likely to act opportunistically, since it does not exploit workers
- Establish a basis for broader normative behaviour which can facilitate greater diversity in alliances
- Signal that the company is well-managed, with medium and long-term horizons rather than short-term strategies for doing business

A firm's reputation as a good employer will bolster its reputation as a good alliance partner. Showing trust in workers, and respect for their rights, leads to an increased inclination to trust others more generally, and to act in a respectful manner which is more likely to promote cooperative behaviour between partners, leading to greater knowledge sharing and innovation.

The characteristics of social dialogue for productivity and competitiveness make it especially useful for building social capital. Social dialogue is important at all levels. Within a firm, the combination of higher-level periodic dialogue, shop floor on-going dialogue, and mid-level ad hoc dialogue increase the likelihood that trust, communication and cooperation will become firmly established in the culture of the enterprise to support continuous productivity improvement. Likewise, social dialogue at the mezzo and macro levels helps to reinforce and spread the culture more widely, for faster economic and social development.

NPOs are particularly well positioned to promote decent work and social dialogue for productivity and competitiveness, through awareness raising, research, technical advice and dissemination of best practices. NPOs can help firms and workers to reach a higher equilibrium level through fostering social dialogue. Social dialogue cultivates social capital, which is essential for building trust at all levels. Social dialogue in the context of national productivity centers fosters very focused social capital and acts as an efficient means of disseminating information on best managerial practices for productivity gains.

NPOs can further increase the level of long-term and sustainable productivity growth by advocating policies that encourage improving productivity in the supply chain through application of decent-work based managerial practices, which benefit both the principal firm and the producers, and emphasize an optimal distribution of the productivity gains to all, including workers.

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BACKGROUND AND REPORT STRUCTURE

The purpose of this report is to provide a first-phase country report for the research project initiated by APO focusing on the role of social capital in economic development. This report contains contents reported earlier in the country-based paper and that of the pilot study results.

Specifically, we will start with a review of the definitions of social capital. Basically, two divergent views on social capital and a temporal consensus will be discussed. Upon establishing the definition, we will elaborate on the various effects of social capital, including information, influence, and solidarity, in order to grasp the content of capitalization of social relations. We will further discuss three dimensions of social capital: that of structural, relational, and cognitive dimensions. These sessions conclude by linking social capital with productivity improvements through the extent that social capital can support the creation of both static and dynamic efficiencies.

Based on the understanding of social capital and project objectives, we report a set of pilot survey results based on the questionnaire provided by the chief expert. Suggestions for changes on the measures of social capital and expectations on the research design of the follow-up phase research are discussed at the end.

UNDERSTANDING SOCIAL CAPITAL

Definition of Social Capital

The meaning of social capital could be understood simply from the two words “social” and “capital”. For the former, it indicates types of resources associated with the content or structure of social relations between actors. In order for these resources to be capitalized, it implies the actor’s purposive action by utilizing these resources and conscious efforts in investment on social relations, like one would invest in human capital. In other words, an intuitive definition of social capital could be *resources embedded in social relations accessed and used by actors for actions* (Lin, 2001, p.25). Different from market relations and hierarchical relations, social relations refer to a tacit form of exchange of favors between interacting actors, which constitute the dimension of social structure underlying social capital.

Although the concept of social capital has received a great amount of attention in the field of sociology, political science, organizational science, and more recently management, a careful review of various definitions of social capital reveals heterogeneity in their focus. In brief, these definitions vary in whether their focus is primarily on *bridging* or *bonding* forms of social capital (Adler and Kwon, 2003).

A bridging view focuses on social capital as a resource that inheres in the social network tying a focal actor to the other actors. From this view, the actions of the individuals and groups will be greatly facilitated by their direct or indirect links to other actors in social networks. For example, Portes’ (1998) definition of social capital as “the ability of actors to secure benefits by virtue of membership in social networks or other social structures” pertains to this category. The bridging view emphasizes how individuals

access and use resources embedded in social relations or networks to gain returns in instrumental actions. Lin (2001) pinpoints that the focal points for analysis in this perspective are (1) how individuals invest in social relations and (2) how individuals capture the embedded resources in the relations to generate a return (p.21). Burt's work (1992) on structural holes also reflects this perspective.

In contrast to the bridging view, the bonding view focuses on the collective actor's internal characteristics. The formations of social capital therefore lies in the linkages among individuals or groups within the collectivity and, specifically, are those features that give the collectivity cohesiveness and thereby facilitate the pursuit of collective goals. In other words, this perspective focuses on social capital at the group level and discusses how to develop social capital as a collective asset that will lead to better group outcomes. Coleman's (1990) definition of social capital apparently belongs to this perspective. For Coleman, social capital consists of two elements: it is an aspect of a social structure, and it facilitates certain actions of individuals within the structure (p.302). Putnam (1995) also defines social capital from the bonding view by indicating social capital as "features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit" (p.67).

In fact, the distinction between these two views is a matter of emphasis and unit of analysis; therefore they are not mutually exclusive. A firm's behavior will be influenced both by its external linkages to other firms and institutions as well as by the structure of its internal linkages. Lin (2001) pinpoints that there is a consensus among major contributors to the conceptualization of social capital that *social capital consists of resources embedded in social relations and social structure, which can be mobilized when an actor wishes to increase the likelihood of success in a purposive action* (p.24). An actor's conscious efforts on building social capital then refers to *an investment in social relationships through which actual or potential resources of other actors could be accessed and utilized by the focal actor*. Therefore, the scale and scope of social networks with embedded resources are expandable through the actor's investments. Moreover, by institutionalizing these social relations or networks, both the collective and the individuals in the collective could benefit.

Given an understanding that economic development and productivity are multifaceted constructs and encompass actions taken both by individuals and collectives, a broadly covered but usefully focused definition of social capital will be suggested. In other words, prospective research efforts on social capital and its impact on productivity within the Asian context are advised to consider both from the bonding view (internal focus) and bridging view (external focus) of social capital, which could be built and leveraged for value creation. Taking this view forward, we will then discuss how social capital can affect both individuals and society.

Effects of Social Capital

We have postulated that social capital refers to resources embedded in social relations that are either owned by or accessible to the focal actor. These socially embedded resources could render various effects to the focal actor (Adler and Kwon, 2002).

First, social capital facilitates access to broader sources of *information* and improves information quality, relevance, and timeliness. Information advantages are critical to tapping opportunities in the usual imperfect markets and especially helpful for most decision makers characterized by bounded rationality. Second, social capital exerts *influence, control, or power* to interacting actors. These types of influence mainly arise from the actor's structural or hierarchical position. The third function of social capital is

solidarity. Internally, strong social norms and beliefs, associated with a high degree of closure of the social network, encourage the organization's members' compliance with local rules and customs and hence reduce the need for formal controls (i.e., social control). Externally, strong social norms and beliefs may reinforce the actor's identification and recognition in the marketplace, which could in turn support the actor's further bridging of network resources. With information, influence, and solidarity effects in use, the capitalization of social relations for a collective or individuals of the collective can be realized.

Dimensions of Social Capital

Scholars of both bonding and bridging views of social capital all recognize that social capital is not a single entity, but a rather multidimensional in nature (Grootaert, Narayan, Jones, and Woolcock, 2004). Taking the bridging and the bonding view as well as three major effects described above into consideration, Nahapiet and Ghoshal (1998) suggest three dimensions of social capital: *structural*, *relational*, and *cognitive* dimensions, which are useful for our research.

The structural dimension of social capital refers to the properties of the social system and of the network of relations as a whole (Granovetter, 1992). Important facets of this dimension include presence of network ties between actors, network configuration or morphology describing the pattern of linkages (e.g., density, connectivity, and hierarchy), and extent of appropriation. In contrast, the relational dimension of social capital indicates personal relationships which actors have developed with each other through a history of interactions. The resources embedded in social relations pertaining to this dimension are more behavioral or of the bonding type, such as trust and trustworthiness, norms and sanctions, obligations and expectations, identity and identification, etc. Nahapiet and Ghoshal (1998) suggest a cognitive dimension of social capital as those resources providing shared representations, interpretations, and systems of meaning among parties, which represent a critical domain for sustaining organizational advantages as a basis for value creation (p.244).

Social Capital and Productivity

Summarizing the above discussion, we can identify two different yet complementary aspects of productivity improvement that social capital can facilitate. The first aspect is the economic gains captured from the efficient information diffusion facilitated by social relations and from efficient transactions between actors or parties guarded by trust and norms. This type of economic gain can be regarded as static synergistic creation or what North (1990) called *allocative efficiency*. The other aspect of productivity improvement refers to learning and intellectual capital creation through internal and external cooperative behaviors that are supported by social capital. Nahapiet and Ghoshal (1998) refer to this type of dynamic economic gain as *adaptive efficiency* and suggest social capital to be an important factor leading to a successful development of intellectual capital (p.245).

So far, we have elucidated the definitions, dimensions, and potential impacts of social capital. Next, we shall work on the measurement issue of social capital so that a more comprehensive investigation on the impact of social capital on productivity can be realized. Under the guidance of the chief expert of this project, all participating countries conduct a pilot survey by using a same questionnaire which tends to evaluate the nature and the extent of an individual involvement in various informal and formal networks.

PILOT SURVEY OF SOCIAL CAPITAL MEASUREMENTS

The following paragraphs delineate pilot survey results on social capital/network conducted in the Republic of China based on three business executive respondents. We will first describe the profile of three respondents and then debrief their responses to question items pertaining to four categories. This report will conclude by indicating some of the directions for future modification.

Respondent Selection and Demographic Description

I chose three executive-level respondents for this pilot survey in an attempt to understand the nature and content of social capital of business executives and their impact on productivity, if any. These three respondents, called R(A), R(B), R(C) hereafter, all have at least 20 years of industry experience in Republic of China. While they all possess a EMBA degree as educational qualifications, R(A) also has a Library and Information Science Master degree while R(C) has an Electrical Engineering Master degree.

In addition to their education background, they differ on the industries in which they have been working and the professional area in which they specialize. R(A) is the chief operation officer of a publicly listed electronic component company, R(B) is an intrapreneur and is the chairman of the board in a construction material company, and R(C) is an entrepreneur who founded a medium-size listed company - specializing in the design and production of multimedia products - in which he holds the chief executive officer position. Their ages are all within 45-55 years old and they are all male. With these variations in background, we hope to catch some of the heterogeneity of social connectivity from the pilot survey.

The purpose of the pilot survey was revealed to the participants and each interview lasted for about half an hour.

Results of the Pilot Survey

Following the question items provided by the chief expert, I asked each interviewee to respond orally to the question asked and to comment on the extent of difficulty in providing a concrete answer. A summary of responses from the three respondents is shown in Table 1.

Networks and Characteristics

As far as the types of network which the respondents were engaged in were concerned, networking with company colleagues and with their current and previous classmates were common. I found that an EMBA education serves a significant role in their social connectivity. Different from the other two, R(B) was involved in at least ten groups which kept regular contact and most of them were not for business purposes. Except for the company network, the frequency of contact with their social groups ranged from every one to three months. Monetary expenses due to their involvement in social groups were positively associated with the number and frequency of networking activity. Given their positions in their companies, they played an influential role in organizational decision making.

Overall, I found that “regular” is a key term for helping respondents to identify the number of social groups which we inquired about. However, we could make the boundary condition even more concrete and hence comparable by specifying, for example, “Gets together regularly at least once a year.” In addition, given the variation of social connectivity among respondents, we may consider using a matrix for data entries.

Table 1: Summary of Responses (Taiwanese Samples)

Details of the scales are found in Appendix 1 of the Research Overview by Prof. Yoon.

Group Characteristics	Respondent A	Respondent B	Respondent C
How many groups or organizations do you belong to? [These could be religious groups, sports teams, or just groups of people who get together regularly to do an activity or tasks]	2 Company/ classmates groups	10 Company/ classmates/ alumni/ professional groups	2 Company/ alumni groups
On the average, how much money, if any, do you contribute to the groups to which you belong in a month?	NT\$ 6,000/ Month	NT\$ 20,000/ month	NT\$ 0/ month
On average, how often do you participate in the activities of the groups to which you belong in a month?	Daily to weekly	1-3 months	Daily to every 3 months
To what extent do you participate in the group(s)'(s) decision-making? (1: To a very small extent; 5: To a very large extent)	5	4	5
Thinking about the members of this group, would you say that most are from the same	Educational background	Educational background and income level	Educational background
Generalized Norms	Respondent A	Respondent B	Respondent C
In the Republic of China, would you say that you can't be too careful in dealing with people, or that most people can be trusted?	3	3	4
Would you say that most of the time people are just looking out for themselves, or they are trying to be helpful?	1	3	3
Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?	3	3	3
How well do people in your community/ neighborhood get along these days?	1	4	3
How would you rate the togetherness or feeling of belonging in your neighborhood/village/community?	1	5	3

Everyday Sociability	Respondent A	Respondent B	Respondent C
On the average, how often in a month do you get together with a group of people to do <i>arts, crafts, or other recreational</i> activities?	None	Once a month to once every two months	Once a month
Who are these people with whom you do arts, crafts, or other recreational activities?	NA	1	1
On average, how often do you get together with others to <i>play cards, games, or board games</i> ?	NA	NA	NA
Who are the people with whom you get together to play cards, games, or board games?	NA	NA	NA
On the average, how often in a month do you spend time with people outside your household in other ways, such as doing <i>chores, shopping, talking, drinking</i> , or just spending time together?	Once a month	None	None
Who are the people with whom you spend time with outside your household?	1	NA	NA
On the average, how often in a month do people visit you at your home?	Once a month	Once a month	None
Who are the people whom visit you at your home?	2	1	NA
On the average, how often in a month do you have meals outside the home?	Most days	Twice a week	Once a week
Who are the people whom you have meals with outside the home?	1,2,3	1,2,3	1,2,3
How likely is it that you would ask your neighbors to take care of your children for a few hours if you were sick?	1	1	1
How likely is it that you would ask your neighbors for help if you were sick?	1	1	1

How much do you feel you can trust the people in each of the following groups?	Respondent A	Respondent B	Respondent C
People in your tribe/ caste/ race/ religion or ethnic group?	5	3	5
People in other tribe/ caste/ race/ religion/ or ethnic groups?	4	2	Depends
People in your own community/ neighborhood	1	4	3
People who belong to the same clubs, organizations, or groups as you	4	4	5
The business owners and traders you buy things from or do business with?	4	4	Depends
Politicians	1	3	3
People in your family	5	5	5
Government service providers (education, health, electricity, water, etc.)	1	3	4
Local/ municipal government	1	4	4
Judges/ courts/ police	1	3	3

Generalized Norms

For the perceptual evaluation on generalized trust in society, all three respondents revealed a middle level of trust to people surrounding them. I found that personal experience and cognition may strongly affect the response. R(A) took a strong position in making the self-interest assumption on human behavior and this reflected in his skewed answers. In addition, there appears to be a great variation in the neighborhood experience among respondents. I believe that the neighborhood experience varied with the respondent's personal experience.

Overall, I found that respondents could reply to the perception questions without difficulty or hesitation.

Everyday Sociability

There were some variations among the respondents in their everyday sociability. R(A) indicated that he was a boring guy socially and therefore showed very limited regular social activities with groups outside his family. A somewhat similar case was also seen in R(C). Even for R(B) who has comparatively extensive social contact, he only maintained a small number of regular recreational activities with friends. In contrast,

eating out with various friends was the most common social activity in the Republic of China. Inviting friends to their home was not done very often. All three replied that they did not have any experience in asking their neighbors for help or to take care of their sick children. All the respondents do not play cards, games, or board games.

Overall, the categories of social groups appear to be parallel with those identified in the first part, so we could evaluate the social connectivity and intensity on the same basis.

Trust

Question items in this session are by and large clear and identifiable, except for a couple items that are broad in context. For example, the item “people in other tribe/caste/race/religion/ethnic group” could include a variety of persons that make a clear cut response rather difficult. A similar case appeared in the item “the business owners and traders you buy things from and do business with.” R(C) particularly indicated that the answer depended upon what kind of items you buy. For critical items, you only bought from those whom you trust.

Suggestions for Change

Several suggestions for the possible changes to this survey instrument are described below:

1. We have to further fine tune some terms in an operational way so that internal consistency can be achieved and cross-country comparison is feasible. These key terms include “regular”, “other tribe/caste/race/religion/ethnic group”, “business owners and traders”, among others.
2. As these items have different importance and sensitivity to respondents of different demographic segments, we may further define the sampling scope and selection criteria.
3. Since this project concerns with potential impact of social capital on productivity, we may add question items related to how a respondent receives or perceives various forms of advantages from his or her current social network structure.
4. To have a rather complete picture of social capital, we may consider adding some items concerning the cognitive dimension of social capital, which refers to those resources providing shared representation, interpretations, and systems of meaning among parties (Nahapiet and Ghoshal, 1998).

SUGGESTIONS FOR THE NEXT STAGE

As stated in the project proposal, identifying the nature of Asia-specific social capital and exploring its impact on productivity is imperative for Asian firms to gain a competitive edge over the Western model. Specifically, the project proposal suggests that we consider the issue of corporate transformation and how social capital plays a role in the process of corporate transformation. While I concur with this suggestion, I suggest we pay attention to the nature and impact of social capital/network on productivity at the firm-

level through business interactions. As discussed earlier, the social capital of an economic agent covers resources embedded in social relations that are owned by or accessible to the agent. A firm's network configuration within which both structural and relational embeddedness reside serves as a critical element to the formation of its social capital. This is particularly critical in a world characterized by vertical disintegration and inter-firm specialization.

Take Taiwanese firms as an example, corporate transformation relies not only on the firm's possession of social capital but also on the specialization chosen by the firm. Riding on the trend of vertical disintegration and constant technological changes which occurred in many industries, specialized firms in the Republic of China were able to achieve a scale of competitive operation by playing a role of value-adding supplier to companies in the world market. A unique business model of ODM (original design manufacturing) has been developed by Taiwanese IT companies for years¹, which made the Republic of China the leading global IT supply base in many product categories, including notebook and desktop PCs, monitors, motherboards, CD-ROM, and digital cameras, among others. In addition, the strategic innovation of the semiconductor foundry business model has attracted more than 200 fabless IC design companies entering the industry landscape. The significant network effect based on economies of specialization and division of labor helps the Republic of China become the leader in the foundry sector and the second largest country in the IC design business. A similar network model occurs in the IT component sectors as well. Although the Republic of China is comparatively weak in some high-end component sectors, Taiwanese firms are in a leading position supply globally in some product areas, e.g., switching power supply, CD-R, CD-RW, resistors. Putting all these pictures together, we can construct a broadly defined IT industry landscape.

Unlike other forms of industry network, a horizontally configured industry (Yoffie, 1997) consists of independent specialized IT companies that work closely with each other to provide time-to-market, time-to-volume, and time-to-cost advantages. The dynamics of inter-firm collaboration in this industry context is based on both internal production efficiency and external economies that are characterized by speed, flexibility, and reliance. On one hand, co-specialized investments and knowledge-sharing routines are often found between collaborative parties while on the other, using multiple sourcing to maintain competitive supply capacity is common practice as well. Since more than 80% of their businesses are in various types of contract manufacturing for brand companies in the world market, these IT supply networks have to co-evolve with other global (product and marketing) networks, working especially closely with leading firms (Sturgeon and Lee, 2005). The collaborations between local networks and global networks involve both multiple sourcing and multiple supply structures. In other words, within the IT industry context, contractual supply relationships are neither arm's-length, exploitative nor of a partnership, symbiotic type, but are a mix of both competition and collaboration based on sustaining productivity improvement.

Speaking directly, the horizontally configured industries may provide an ideal empirical setting to explore both the essence and impact of social capital and the contingencies under which social capital may affect a firm's performance. We can in fact consider social capital from two perspectives. One is from the within-firm perspective and the other one from the between-firm angle. For the former, the practices used for

¹ A detailed elaboration of ODM model can be found from Lee and Chen (2000).

facilitating inter-units knowledge exchanges and/or integration - which could bring up synergistic gains - could serve as a fruitful area of exploration of the linkages between social capital and productivity. For the latter, the social structure among interacting firms which generate inter-firm specialization and hence network growth would be an even richer arena to explore how social capital at the firm-level (if any) could affect a firm's long-term growth and economic prosperity.

Overall, the first phase of study has promoted an interesting dialogue among participating countries on social capital. In addition, we have achieved a certain level of consensus on the usefulness of studying social capital and its impact on productivity. While what is left for the future research endeavors may be varied, I am confident that fruitful research outcomes can be realized if we can formulate a clear research strategy supported with greater integration among participating countries.

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INTRODUCTION

Macroeconomic policies, technology development, and new management approaches to improve productivity are continuously being developed and implemented. However, it is being increasingly recognized that in the ultimate analysis, human resources make the decisive difference on productivity's rate of growth. Traditional wisdom also tells us that being well-connected is essential in seeking assistance. The social capital and development literature abound with examples of how networking facilitates development. Among others, it has been argued that the faster development of Italy and success of Silicon Valley were due to linkages between various concerned groups. It is in this context that the APO decided to investigate and relate productivity and social capital to each other to unearth new and better ways of improving productivity in its member countries.

OBJECTIVES

The basic purpose of this research project is to explore linkages between productivity and social capital, which will require greater understanding of social capital, productivity and the latter's improvement dynamics. The research attempts to assess the level of social capital and productivity growth in different organizations and identify dimensions of social capital that are relevant in member countries.

APPROACH AND METHODOLOGY

Approach

This research study is organized in six selected member countries of the APO. The first coordination meeting was held in Seoul, South Korea to discuss and decide the scope, methodology, and content of this research study. After detailed discussions, the following approach was taken: the study would be an exploratory one employing a case study approach. Primary data would be collected from three organizations primarily through a specially-designed questionnaire. The following organizations were selected to cover a variety of businesses for this purpose:

- a. The first case study relates to an information technology SEI-CMMI Level 5 company, which is also ISO 9001: 2000 certified, providing end-to-end solutions and services.
- b. The second case study relates to a service-oriented firm that acts as an internal consultant and provides services to its group companies.
- c. The third case study is that of a multinational manufacturing firm.

As for the relevant definition of social capital, the participating countries decided to focus on the following:

- a. Social capital refers to "features of social organization, such as trust, norms, and networks that can improve the efficiency of the society by facilitating coordinated actions." (Robert Putnam)

- b. Intangible resources contained in both individuals and in the community that enhance cooperative actions among individuals (Inaba).
- c. “Networks together with shared norms, values and understandings that facilitate cooperation within or among groups. “ As for trust, which is treated as one of most important elements of social capital, the OECD’s paper views it as “ both a source and outcome of social capital as well as being a very proxy for many of the norms, understandings and values which underpin social cooperation (OECD).
- d. The ILO has defined social capital as “the level of trust, communication and cooperation which exist within an enterprise”.
- e. Social capital is a component of total factor productivity. “There is no single object called social capital, there (are) multitude of bits that together can be called social capital. Each bit reflects a set of interpersonal connections.” (Dasgupta, 2002)
- f. Networks, trust, and norms were identified as the basic dimensions of social capital to be studied.

Methodology

The study started with a literature review on productivity and social capital to develop a greater understanding of the emerging perspectives on productivity, the dynamics for improving productivity and to explore the meaning of social capital in the context of productivity. The selection of case study organizations was guided by the variety of businesses that they represent and their willingness to share information.

The studies examined the role of social capital and its relationship with productivity. The three underlying dimensions of social capital - networks, trust and norms - were also examined. Various questions were employed to enable a comparative assessment of the contribution of social capital to the growth of productivity in the case study organizations in the preceding three years. The objective was to develop a holistic interpretation of the influence that these three dimensions of social capital have on one another. Such an objective helped in categorizing organizations with respect to their existing level of social capital and productivity growth, and in identifying relevant dimensions and organizational practices that contributed to higher productivity.

Social capital and its relationship with productivity were studied at the organizations’ top and senior management levels as these actors play a critical role in productivity growth.

DRIVERS OF PRODUCTIVITY

The traditional concept of productivity is focused on improving labor performance or the efficient use of resources such as materials, capital, and energy. In the extant highly competitive and fast-changing economic and social environment, this traditional interpretation of productivity cannot meet the diverse and complex needs of businesses and the expectations of its stakeholders. The capacity to compete in the market place today depends much more on how far the business is able to satisfy the customer needs and expectations. At the same time, the manufacturing process and product delivery should be environmentally-friendly to meet societal expectations. Generations of pollutants could produce reactions from society in general and the nearby community in particular, putting the organization’s survival at stake. In other words, what a business produces – i.e. the outputs of productivity – is becoming relatively more important as

compared to the traditional input-oriented view. In addition, the relative importance of inputs and outputs would depend on the nature of the industry, the level of competition in the economy, technology, and stakeholder expectations, among others.

The changing view of productivity is reinforced by current literature which highlight that productivity has constantly been subjected to dimensions relevant only to a particular situation. Today, productivity is being considered a multidimensional, universal and dynamic concept to suit businesses, competitive strategies and societal aspirations. Therefore, to realize its full potential in the extant environment, productivity must start with improving existing products or developing new products and services (effectiveness) before manufacturing and delivering them at a price and time preferred by the customers (efficiency), in a manner acceptable by society. The concepts of Green Productivity (GP) as promoted by the APO incorporating environmental and productivity concerns, and Cleaner Production by the UNDP have taken on vital significance. In brief, productivity growth should focus on creating extra value for the customer (quality products and services at affordable prices), for the organization (employee and shareholder satisfaction), for the community and society (quality of life) and in long-term partnership with suppliers. In this context, developing and nurturing relationships with the stakeholders would help in understanding their needs and the role which the organization can play. Relationship management is both an input and output particular to an organization's top and senior management.

The factor-driven approach emphasizing labor productivity or utilization of other resources or shop floor performance produces sub-optimal results and does not place due emphasis on the overall organizational goals and performance. Also, focusing on the functional performance or factors of production alone without due consideration for the overall objectives and goals of the organization are likely to create situations in which various departments work against each other. In this context, the need for effective coordination and requisite cooperation between various departments and their staff cannot be over emphasized. This cooperation would always be dependent upon the relationships between them irrespective of the processes and systems designed for the purpose. The competitive strength is determined by the weakest link in the value chain. The aim should be to achieve excellent performance by the organization as a whole rather than by individual departments or units because it is the organization that competes in the market place. Consideration of the overall goals and objectives is likely to create a better understanding of the contribution required from various factors of production and departments. Also, to achieve optimum productivity, the organizational system should be expanded to include all the elements that affect the organization as well as those that are affected by the organization. This would bring the concerns of suppliers, customers, the community and government into the considerations of productivity for decision making. This top-down approach will link the organization with the environment in a dynamic and organic fashion and will help in building positive relationships.

As surmised from the above paragraph, a host of factors operating at international, national, organizational and individual levels influence the growth of productivity as shown in the figure below.

To create a better understanding of the interaction between these factors, they are shown as four concentric circles and improvement in an outer circle would affect the levels that lie within the circle. However, it is people who innovate and implement actual improvements that form the innermost circle while factors at the organizational, national and international level create an environment that facilitate improvement. While productivity improvement strategy is generally situational, the following emerges as the

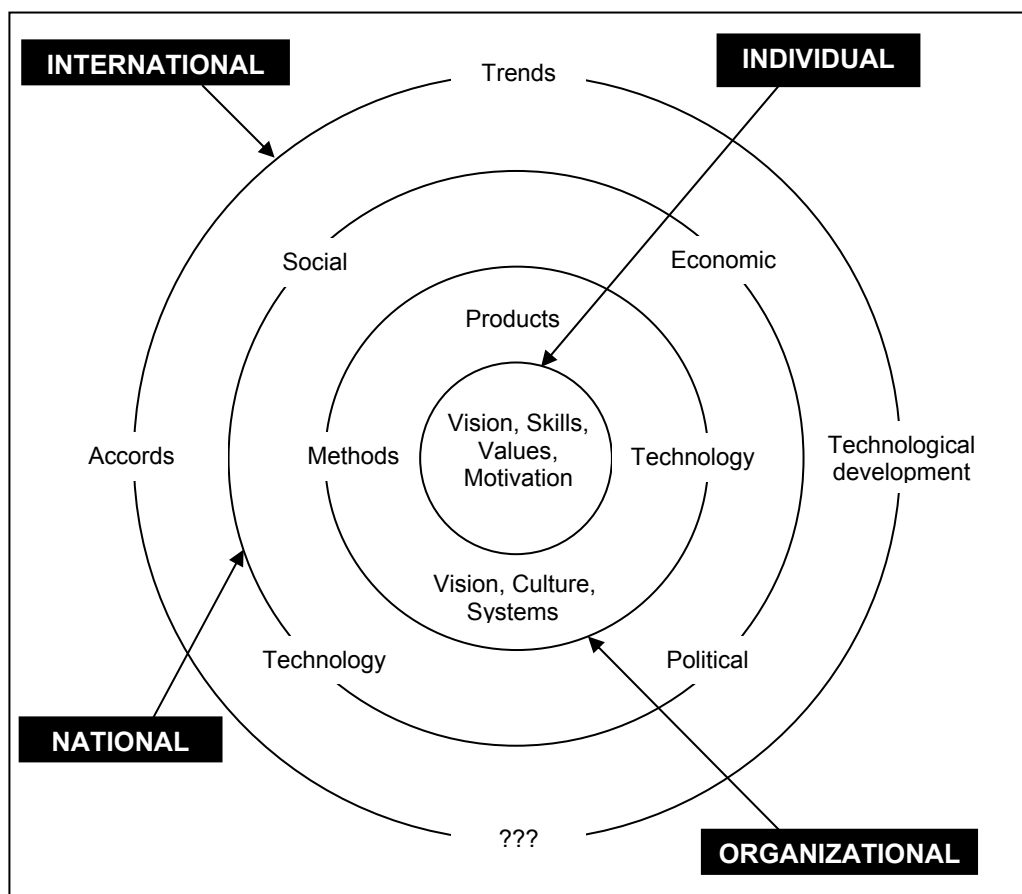


Figure 1

critical factors for achieving sustained productivity growth:

- a. Employees are the fountainhead or the original source of productivity and performance. Human resources play the most critical role in thinking of alternatives and making changes for improvement. Productivity improvement is not a mechanical process but is essentially a social change process requiring the commitment and participation of, and the coordination and cooperation among a critical mass of people. The way employees think about the organization will shape their role and relationships, behavior and participation in this process. It is in this context that social capital assumes added significance. In an interconnected and interdependent world, interpersonal relationships have assumed greater significance than formalized relations. The higher one goes in the hierarchy, the more important the relationship becomes - particularly with stakeholders outside the organization, where they join customers and the community. These connections provide you with information about the market and competition. Personal relations with customers and listening to them would substantially facilitate the building of trust with them.

- b. Management drives performance and improvements because it makes decisions about products, services, technology and above all the organization's vision, values, and motivational human resource practices. It is management which determines an organization's values and hence the corporate culture which sustains or undermines an organization's commitment to productivity (Hubert, 1992). The corporate culture has profound impact on the relations between employees and other organizations. Management must create an environment and promote practices to enable employees to share knowledge and experience. A sufficient degree of trust between the employees and management is essential to carry out improvement plans and to build teamwork within the organization.
- c. Technology and processes are critical. Employees play an essential role in the utilization and improvement of technology and the way an organization responds to changing business conditions, particularly to increasing customer demands in these times of uncertainty. Processes cannot capture all types of situations which employees would come across in their daily operations.

Depending upon the specific interpretation of productivity, many tools, techniques and approaches have been developed and implemented. The traditional view of productivity prompted the development of productivity approaches that focused on reducing labor costs, wastes and improving efficiency. The origin of these approaches can be traced to Adam Smith who maintained that workers need to specialize to achieve greater productivity. Frederick Taylor developed this further by standardizing procedures and identifying the best method of doing certain tasks to achieve higher worker performance. Later, industrial engineering techniques such as time and motion study refined Taylor's idea further. Ford took this idea a step forward by developing a moving assembly line and divided work into repeatable tasks while Sloan extended the principle of 'division of labor' to management and created autonomous decentralized divisions within an organization that could be monitored from a small corporate office. However with changing economic conditions, new approaches focused on reducing wastes and simplifying tasks; and management processes within the enterprises were coordinated to minimize costs of operations.

Today, the focus of improvements has shifted to strategic improvements and changing the mindset of employees. However recent literature has highlighted the need to make the improvement process a people-intensive one besides adopting a systems approach and aligning it to the business strategy. It has been argued that among other factors, productivity strategy must create positive attitudes and mutual trust (Monga 1997).

DISCUSSION ON SOCIAL CAPITAL AND ITS RELATIONSHIP WITH PRODUCTIVITY

A perusal of the literature on social capital highlights that the concept has been extensively employed to comprehend and explore its contribution to the process of economic and social development. However, the usefulness of social capital and its linkages with productivity still needs to be fully explored. From the above discussion, it is

clear that in any organization, social capital is an important source of productivity. To a certain extent, productivity and social capital have an interactive influence on each other. To get things done, workers and professionals need to mobilize others' support and advice well beyond the hierarchical structure of the organization (Gabby & Leenders, 1999). The efforts of different departments and employees within a department would need to be synthesized and coordinated to direct their efforts towards the common goals of the organization. It has been experienced many times that employees working in different departments or even within a department work to achieve short term objectives which are not aligned to the organization's goals. Cooperation and coordination is simply not a matter of systems and procedures - they require the active participation of employees in various departments across various levels.

It is increasingly being realized that productivity improvement is primarily a social change process. As discussed above, the change in the process, structure, products, services and other factors of improvement are fundamentally the contribution of the creative abilities, knowledge, attitude, habits and skills of people. The application of productivity improvement tools and techniques, and effective implementation of solutions is a function of the commitment of the people concerned. During the process of investigation, alternative ways of doing things may evolve and upon implementation, many problems are encountered. The concerned actors normally turn to others - who might have encountered and solved similar problems within and without the organization - for help and assistance. Replication of better ways of doing things as well as the (increasing) application of benchmarking are accepted strategies of improving productivity. However, building positive relationships facilitates the acquisition of information on what is happening in other organizations and departments. Often the experience of others, interpersonal relations and networks also prove to be useful in meeting this end.

To further explore these linkages, we need to understand the essence of the concept of social capital and its dimensions in the context of what has been discussed above. Social capital takes on various definitions in the literature. In this regard, the following paragraphs try to capture the essence of social capital:

- a. Broadly speaking, social capital is concerned with the social relations that we develop and maintain with each other, unlike other capital resources that are physical in nature such as tools and machines which can be traded in the market place and/or with money to subsequently buy or hire other factors of production. Social capital is intangible and is a property of the relations between individuals. It is shared by at least two individuals (a pair). It cannot exist in vacuum and depends on the quality of interactions to create value. We need to promote these interactions within and without organizations in a manner that would enhance cooperation and coordination. These relations could be between employees within the organization, and between two individuals from different organizations or groups, or between two organizations (through joint ventures and strategic alliances).

The level and quality of social capital is the result of efforts and investments made by individuals and organizations in developing and nurturing relations which can be leveraged when required. These relations are recognized by individuals as information channels and general social support. Clearly, social capital has the capacity to play an important role in improving productivity by facilitating the flow of new ideas and new

ways of doing jobs and solving problems. The teamwork that is so essential for improving performance is also affected by the quality of relationships among employees of various departments and within the same one. In this respect, the following aspects of social capital are highlighted (Lesser, 2000):

- i. Social capital is a resource into which other resources can be invested with expectation of future, albeit uncertain, returns. Money can be invested in promoting social capital within a given network. An example of this might be an organization investing in a practitioners' conference to enable people to build their informal networks and create face-to-face interactions which might lead to increased levels of trust. Such conferences, meetings or workshops also lead to the transfer of information and knowledge, to the benefit of the organization in the long run.
 - ii. Social capital is "appropriable" and to some degree "convertible". Social capital can make it easier to transfer a relevant practice from one part of an organization to another. However, it is more difficult to "exchange" social capital for other forms of capital.
 - iii. Social capital much like organizational knowledge, often grows and becomes more productive with use.
 - iv. Social capital is not located in the actors themselves but in their relationships with other actors.
 - v. Social capital requires time, energy, and other resources to develop, maintain and enhance these relationships.
- b. Social capital should be differentiated from human capital. The latter relates to education, skills, knowledge, and the experiences of individuals. These competencies and positive attributes are an asset to the individual and organization. The sum of individual competencies indicates the human capital of the organization. However, it is worth noting that the concept of human capital is a result of the human relations theories (Buechtemann & Soloff, 1994). Existence of human capital alone would not produce performance. Many organizations tend to ignore conditions under which competencies actually possessed by individuals are activated and combined (Hall, 1988). Organizations need to motivate and demand performance from employees. Social capital can be a trigger for the effective utilization of human capital. Sound relationships would enable the transfer of skills and knowledge to improve employees' performance. Under conducive conditions, employees would be encouraged to obtain the experiences of their contacts for the benefit of their organizations and their own performance.
- c. In the extant business environment, knowledge has emerged as the major source of competitive advantage. In this context, intellectual capital has become especially important. The roots of such an advantage lie in the way organizations create new knowledge, share existing knowledge and apply knowledge to new situations. Many researchers have recognized and examined the importance of intellectual capital apart from physical and human capital. Others propose that knowledge is our most important

engine of production and organization aids knowledge and acknowledge that with rare exceptions, the economic and producing power of the firm lies more in its intellectual and service capabilities than in its (fixed) assets—land, plant and equipment.

Nahapiet and Ghoshal (2000) have defined intellectual capital as “the knowledge and knowing capability of a social collectivity, such as an organization, intellectual community or a professional practice”. Intellectual capital includes explicit (relatively easy to capture while maintaining its value) and tacit (difficult to articulate and document without losing its value) forms. Explicit knowledge is primarily found in books, articles, and procedure manuals which technology has made easier to scan, store, and access it. Social capital plays a critical role in managing and maintaining this knowledge base. The motivation for individuals to contribute to and reuse explicit knowledge is largely based on the social capital of the members. If individuals feel that they do not trust others or that their knowledge has little value, they would be less willing to share it. Social capital plays a significant role in transfer of tacit knowledge. Individuals must identify others with the required expertise and build a trusting relationship with them to enable tacit knowledge to be shared. Based on his study of 122 best practice transfer, Szulanski (1996) concluded that the arduous relationship between the source and recipient is one of the three critical factors in the transfer of tacit knowledge. It has been argued that combination and exchange are the key processes for the creation of knowledge and these are embedded in social processes and relations. Nahapiet and Ghoshal (2000) has suggested that social capital facilitates the creation of new intellectual capital and organizations as institutional settings are conducive to the development of high levels of social capital.

- d. In the context of increased strategic alliances, joint ventures, and outsourcing, social capital has assumed greater significance. As more companies outsource their design, manufacture and delivery to others, their ability to build strong and positive relationships with those responsible for the various aspects of the value chain becomes critical. Also in a changing business environment characterized by layoffs, early retirements, transfer of jobs to other low-cost countries, maintaining positive relationships poses a challenge.

Under these conditions, organizations need to pay attention to the various means of building social capital and leverage it to improve their performance. As explained by Eric Lesser in *Leveraging Social Capital in Organizations* - “One method for building social capital in organizations is to bring together informal groups of employees together to share knowledge and expertise. These “Communities of Practice” can range from a few individuals to several hundred members and are built upon common ways of working. Individuals, looking for others with common experiences, work tools, and challenges, find each other and meet (either physically or virtually) to solve problems and build an affiliation with

others of similar work interests. Examples such as kaizen groups, small group activities, quality circles, suggestion schemes, productivity improvement teams, encouraging professional interactions, are found among the work practices of good firms. These groups work as clearing houses of information and connect individuals, building trust among members.

- e. Networking with others will help keep one in touch with what is happening around them and provide information that might be of use in scanning the environment and solving problems. The value of social capital lies in the network that binds its members who are willing to help each other to achieve common goals by facilitating coordinated action. A family or a group of friends is an example of a network at the most micro level. A network is characterized by an attribute or a common objective whose achievement a group of people strive for together. It could be a professional group interested in furthering the cause of the profession, a sports group, a cultural group or a religious group. Any individual can be a part of more than one group or network. Various groups would have different norms and levels of mutual obligations, and may generate different levels of “generalized trust” towards others within the grouping. The networks speed up the flow of information among members, share private information which could help members find solutions or offer insights to problems. Networks could also provide opportunities and feedback for businesses on new products, new markets, and customer viewpoints. Traditional corporate business anecdotes abound with business deals finalized on the golf courses as examples of fruitful networking.
- f. The literature draws a distinction between dense and sparse networks. Dense networks have overlapping or “multilateral” ties between members. Employees of an organization could have dense or sparse networks which could affect the flow of information, level of cooperation and coordination, teamwork; the capacity to give or obtain help could also be affected to very large extent which would in turn impact the productivity and performance of the organization. The relationships among employees of a particular department or departments could normally be considered a dense network. However, it may also be noted that many times these relationships could also produce negative results if differences among employees are not dealt with and they are not given treatment based on the principles of fairness and equality. Between two organizations, strategic alliances are a formal way of exchanging information that are of value for both parties. Information technology including the Internet could facilitate the process of staying in touch with one another and accelerate the transfer of information and knowledge. A view which is gaining ground is that an organization can also be viewed as a network of individuals working to achieve common goals.
- g. The productivity of a particular organization depends on the level of trust among its employees. Trust represents the level of confidence that people

have towards the behavior of others and the reliability of their actions. A person's level of trust in another depends largely on his perception of the other party's trustworthiness. It is dependent more on actions rather than what is said. Trust can also be perceived between groups and organizations in a society. It is also possible to conceive of "the general level of trust" within a particular society or organization. The level of trust would depend on the norms of behavior practiced and both have an influence on the organization's work culture in which they reside.

Many authors in the literature on social capital treat trust as an element of social capital, while others consider it as an important source of and/or outcome of social capital and caution against treating trust as social capital itself. These authors advocate that trust can be considered as a proxy for social capital. At the same time, trust and trustworthiness are the basis of most relationships and play an important role in the conduct of commercial dealings between the organizations and in general, our attitude towards one another.

Trust in a particular organization would depend upon how the management takes care of and treats its employees and whether it is able to satisfy their needs. The generalized level of trust between management and employees would determine the level of motivation that is essential to continuously improve and compete in the market place. In a knowledge economy, it is important to satisfy the employees' social, mental and spiritual needs besides their physical ones. Satisfaction of these four needs would motivate employees to give their best and engage in innovation. In the context of this study, social needs, i.e. how employees relate to each other are of importance. Creating and providing visions and purposes to employees would bind them together and allow them to relate to each other in a positive manner. In this respect, sharing information related to the organization, providing sufficient communication channels, developing an open and transparent management style in which employees can share their ideas, training and retraining them, and above all, creating an environment of fairness and equity are important.

- h. The third element of this exploratory study is the norms that guide behavior and shape people's attitude towards each other. Generally speaking, norms play an interactive influence based on the strength of the network and the generalized level of trust that exist. Norms are shared understanding, informal rules and conventions that prescribe, proscribe or modulate certain behaviors in certain circumstances. These norms are often unwritten, although they can be expressed and reinforced through religious beliefs and dictums, social sayings, nursery rhymes, folklore, music and drama or the practices of an organization. These norms will dictate what is acceptable or non-acceptable. Sometimes, social norms can also be embodied in laws and regulations. Informal social norms can act as complements to or even partial substitutes for laws and their associated enforcement processes.

Reciprocity is fundamental to the concept of social norms. Reciprocity may be specific and/ or generalized. That is whether the favorable act will be reciprocated and when it will be reciprocated, by and to whom – all of which may or may not be known before the person commits himself to the act.

Like societies, different organizations have different social norms. To some extent, organizations reflect the norms prevalent in society. However, it depends on the management of organizations to design systems and processes to reinforce or minimize the impact of these societal norms. An APO study entitled “Easternization: Socio-cultural Impact on Productivity” suggested that socio-cultural factors should be viewed as “subsidiary factors” and whether the leaders of an organization can design a system to unify all available resources in a favorable way should be viewed as the “focal factor”. It may also be noted that norms prevalent in developed western societies differ from those in developing countries. However, various groups could have norms that are different from what is accepted at the broad level of society. This aspect offers opportunities for organizations to develop norms that are different from other organizations and within an organization. Different norms could exist in different departments or groups depending on the leadership. The work culture of an organization mirrors its norms.

In the context of productivity, the specific norms prevalent in an organization impact its performance level and growth rates. These organizational social norms could include respect for merit, concern for external stakeholders, solving problems, sharing information, providing feedback, abiding to the rules and regulations of the company, professional honesty, coaching and advising juniors, adherence to quality standards by doing one’s best, learning, the degree of cooperation and coordination, providing help to others at the professional and personal level, openness, and action orientation, among many others.

CASE STUDIES

The relevant features of the case study organizations along with an analysis of their productivity and an assessment of their social capital are captured below.

Case Study 1: iBilt Software

Background

This case study pertains to a company called iBilt Software in New Delhi and is in the business of providing IT solutions. It is a SEI-CMMI Level 5 organization (the level indicates the maturity level of a software development organization). It is also ISO 9001:2000 certified. iBilt Software provides different services to clients all over the world. Its strategy and approach reflect the following:

- a. To be a process driven company
- b. To define a quality policy and quantifiable quality goals for the organization

- c. To discuss with iBilt Software users, the processes for receiving their inputs on process optimization
- d. To monitor the customer satisfaction index
- e. To continuously improve iBilt Software's processes

The company has developed design and development expertise in providing end-to-end solutions (from analysis to maintenance) with their vertical knowledge of various technologies to maximize client benefits. Providing innovative solutions in the business and technology domains that are adaptable to the client's changing needs is the company's strength. It has developed state-of-the-art software development facilities, high-speed data links and video-conferencing, allowing seamless connectivity and communication. Its range of services include consulting, implementation, and training in areas such as Enterprise Business Applications, Supply Chain Management, Technology Evaluation, Customer Relationship Management, Multimedia and Graphic Design, and System Integration, among others.

The company has 250 employees with a broad range of experiences - out of which the current software engineering department employs about 150 people and this number is growing steadily. 4% of the annual revenue is dedicated towards research and development and the company mandates 40 hours of training per year for every employee. The company believes that the strength of its organization is in its people. It strives to provide a conducive work environment.

iBilt Software is a knowledge company that is customer driven. The application and generation of new knowledge in this industry (where knowledge obsolescence is high) to provide quality services plays the most critical role. Trust is an important element of the strategy for winning over customers, particularly in the IT industry. Selling in this industry is a team effort requiring a cross-functional team of employees who will together map out the customer development needs and the solution implementation plan. In this respect, the relationship (comprising of trust, networks, and norms) between the members of the team and between various departments in general is crucial. Evidently, its performance and growth depends to a very large extent on the productivity of its employees. In this context, social capital can be very critical in building trust with customers and among team members.

Productivity Analysis

The analysis of the financial statements for the last three years indicates that iBilt Software has seen impressive growth in revenue by about 20 times, while profits before tax grew by about 116 times and earnings per share by about 8 times. However at the same time, the cost of services purchased externally has increased by about 34 times and personnel cost went up by about 10 times. In addition, personnel cost now makes up half of the total costs.

As a result, the productivity (measured as a ratio between value-added to personnel cost) has gone up by only 1.67 times while the absolute value-added has increased by about 17 times. The scope for improving productivity is considerable and social capital, among other approaches, can play a significant role in achieving higher productivity growth.

Social Capital Assessment

The respondents are MBA holders, Engineering graduates, and post graduates in Statistics and Engineering and are placed at senior management levels that include Vice-

Presidents, Heads of Departments and Senior Executives, and across various functions such as international business, business development, and software development and projects.

An analysis of the questionnaires received is presented below:

- a. As far as networking is concerned, most respondents are members of external groups, averaging about 3 groups per respondents (ranging from 0 to 8) while about 60% have membership in internal groups (only one group is mentioned in the questionnaire). They get little financial help or time from the organization to participate in the deliberations of these groups. It is acknowledged by all except one, that membership of both external and internal groups have helped them obtain information that was useful in improving their performance and finding solutions to problems. It was clear that the organization needed to do much more to promote internal networking and relations between employees at various levels.
- b. As for trust, the generalized level of trust can be considered average (i.e. neither very high nor low) with most answers falling somewhere in the middle of the scale. The ratings of feelings of togetherness, reliability in the information provided by others, level of cooperation, guidance provided by seniors in their work, willingness to help, and equity and fairness in treatment also corroborate with this assessment. Trust between employees of various departments is on the low side and interdepartmental problems do exist. The employees' contact with their colleagues outside office hours is also weak.
- c. As for the norms of behavior essential for creating a congenial work environment, reaching a satisfactory level of cooperation, obtaining guidance from seniors, commanding respect from each other, and empowering employees for improvement – all of these do exist. However, improvement is required in areas such as feedback to employees' suggestions for improvement, and the low participation of employees on issues relating to work conditions. The formulation and communication of the organization's vision and mission statements, and its commitment to basic values such as fairness, transparency, and integrity have contributed to this work environment.

Case Study 2: Hero Corporate Service Limited

Background

Hero Corporate Service Limited ("HCSL"), established in 1995, is a part of the US\$2.2 billion Hero Group that is one of India's most progressive business houses. Vehicles such as two wheelers and cycles are the focus of this Group's business. The market capitalization of this group of listed companies is US\$ 2357 million (as on 31 March 2004). In addition the Hero Group boasts of national and international joint ventures, alliances and technical collaborations, most of which are managed by HCSL. It provides corporate services in the areas of Human Resource Management (HRM) and Total Quality Management (TQM), Planning and Execution of Greenfield Projects,

Treasury and Finance Management, Information Technology, and the Enabled Services domain. The basic objectives of HCSL are:

- a. To act as an internal consultant to strengthen HRM and TQM in group companies.
- b. To visualize, plan, facilitate and prepare group companies for exploiting opportunities and meeting threats, including the identification, evaluation and selection of specific projects, and implementation of selected ones.
- c. To act as coordinator for benchmarking and for the transfer of best practices among group companies.
- d. To undertake corporate office activities to cover common areas
- e. To manage and lay out in detail the issues related to finance and the group's treasury
- f. To enhance the skills of personnel within the group companies in efficient fund management and foreign exchange risks management (including the amendments and implications in money and foreign markets).

On the TQM front, HCSL's ISO 9000 and QS 9000 certifications have helped the Hero Group companies attain world class standards. The subsidiary is also versed in the Kaizen and Gemba methods apart from other best manufacturing practices. In the area of HRM, HCSL advises the Group on manpower planning, recruitment, salary administration, performance management, employee training and induction, and succession and career planning. Lastly, the various areas served by the finance department and the treasury's management include raising resources, deployment of surplus resources, operating the Management Information System, and budgeting and assessing the Group's financial prospects.

Productivity Analysis

An analysis of the financial performance of HCSL for the last three years (2001-2002, 2002-2003, 2003-2004) indicates that the value-added as a ratio of the subsidiary's personnel costs had increased by about 1.67 times, while net profits increased by about 3 times. However at the same time, the cost of services purchased externally has declined marginally to 0.95 times and personnel cost has increased by about 1.42 times. It may also be noted that during the middle year (2002-2003), revenue declined marginally while the cost of services purchased increased by about 1.8 times. Rent, travelling expenses, legal and professional expenses have contributed substantially towards this increase - as a result net profits and value-added became negative.

Clearly HCSL needs to keep a close watch on its expenses so that revenue and expenses keep pace with each other. Since it provides services to the Group companies, HCSL must focus on its relationship with these companies so that it continuously understand their needs and provide services that enable them to enhance their productivity and develop new projects.

Social Capital Assessment

The respondents are MBA holders, Engineering graduates, and post graduates in Statistics and Engineering who are placed at senior management levels that include Vice Presidents, Heads of Departments and Senior Executives, and across various functions

such as international business, business development, and software development and projects.

An analysis of the 10 questionnaires received is presented below:

- a. As far as networking is concerned, most respondents are members of external groups, averaging about 3 respondents per group who are mostly members on a voluntary basis (ranging from 0 to 10) while about 50% hold membership in internal groups. They get little financial help or time from the organization to participate in the deliberations of these groups. It is acknowledged that membership of both external and internal groups have helped them obtain information that was useful in improving their performance and finding solutions to problems. It was also clear that the organization needs to do much more to promote internal networking and relations between employees at various levels.
- b. As for trust, the generalized level of trust can be considered slightly above average with most answers falling somewhere in the higher end of the middle of the scale and has been improving over the last five years. The ratings of feelings of togetherness, reliability in the information provided by others, the level of cooperation, guidance provided by seniors in their work, willingness to help, and equity and fairness in treatment also corroborate with this assessment. On the other hand, employee training and information-sharing activities need to be further strengthened and the respondents' contact with their colleagues outside office hours is weak.
- c. As for the norms of behavior essential for creating a congenial work environment, commanding a fair amount of respect for each other, opportunities to share ideas and problems, obtaining the cooperation of others, obtaining guidance from seniors, empowering employees for the improvement and maintenance of good relations with others – all of which exist. However, improvement is required in areas such as information sharing, feedback to employees' suggestions for improvement and there is low participation from employees on issues relating to work conditions.

Case Study 3

Background

This case study concerns an international manufacturing firm specializing in eye care products and services (called “XYZ” for the purpose of this case study). It is one of the largest firms at the international level with operations in more than 100 countries worldwide. This firm, with a history of more than 100 years, established its operation in India about a decade ago. The company has contributed significant research in the areas of advance medical science and pharmaceuticals. It has state-of-the-art manufacturing operations, a network of regional offices and distribution set-ups to provide the best service throughout India. XYZ plays a pioneering role in the discovery of new technologies and the launch of new products. Its range of products includes refractive, cataract and vitreo-retinal contact lenses as well as other eye care products. In the last decade of its operations in India, the company has made significant contributions to raise standard of eye care services – for instance, the services provided by XYZ have been able to raise the low contact lens wearer base in the country by approximately five times. To

achieve this result, XYZ placed strong emphasis on creating awareness of its products among the public and eye care practitioners through education programs.

Productivity Analysis

The company's financial performance over the last four years show significant growth in revenue (which has gone up by about 5.3 times), while the cost of services purchased from outside has increased by about 4.3 times and personnel cost went up by about 3.3 times. In addition, personnel cost as a percentage of total costs was reduced from 17% to about 13%.

Consequently, the ratio between value-added to personnel cost has gone up by about 4.2 times while absolute value-added has increased by about 14 times. The company's significant productivity growth can be attributed to the implementation of world class best practices, which can be traced to its access to reservoirs of such practices in its parent company. However, social capital concepts need to be further exploited to achieve higher productivity growth.

Social Capital Assessment

The respondents are MBA holders, Engineering graduates and Chartered Accountants who are placed at senior to middle management posts that include General Managers, Managers, and Senior Executives and across various functions such as manufacturing, procurement, quality control, human resource and administration.

An analysis of the 10 questionnaires received is presented below:

- a. As far as networking is concerned, most respondents are members of internal groups with some respondents averaging about 2 groups each (ranging from 0 to 5). Most respondents are members of at least one external group with 50% doing so on a voluntary basis. About 75% of the respondents hold membership in internal groups such as the Cultural Committee, the Safety Committee, the Sports Committee, the Group Morning Meeting and Emergency Response Team, and the Productivity Improvement Committee. The firm provides financial help and allows time for participation in the deliberations of these groups. It is acknowledged by all except one that membership in both external and internal groups have helped them obtain information that was useful in improving their performance and finding solutions to problems. Most respondents participate in group meetings on a weekly, monthly, and quarterly basis. About 75% of the respondents contribute US\$4-5 per month to their member groups.
- b. As for trust, the generalized level of trust can be considered high as most respondents rated the trust level in the organization on the higher end of the scale and the level of trust has been improving over the last five years. These findings are further corroborated by ratings relating to feelings of togetherness, belief in the information provided by others; the level of cooperation, guidance provided by seniors their work, willingness to help, and equity and fairness in treatment. Of particular importance is the fact that none of the respondents mentioned that they were not being treated equally and fairly and that company does not take care of its employees. Employees seem to be happy and satisfied and management is open and

approachable. Similar to the previous two case studies, the respondents' contact with their colleagues outside office hours is weak.

- c. As for norms of behavior essential for creating a congenial work environment, almost all respondents indicated that the organization is characterized by a high degree of respect for the other person's viewpoints and concerns, satisfactory or better than satisfactory levels of cooperation, opportunities to share problems and views with management, sharing information, obtaining guidance from seniors, respect for each other, empowering of employees for improvement and nurturing an environment that is focused on learning and training – all of which were present. However, one area of concern emerging from this study is the very low participation of workers and their representatives in making decisions on issues relating to pay, work conditions, long-term plans and organizational strategy. The formulation and communication of vision and mission statements, and the organization's commitment to basic values such as fairness, transparency, and integrity have contributed to this work environment.

RELEVANT DIMENSIONS AND SOURCES OF SOCIAL CAPITAL

The literature on productivity highlight that productivity in the extant complex business environment depends more on intangible factors than capital, technology and machines. These intangible factors include motivation, creativity, engagement, vision, attitudes, individual values, openness and transparency, and a value-based and vision-focused management style – all of which leads to development of a productive corporate culture. Realizing that improvement is primarily a social change process, the existence of trust between management and employees on one hand and among employees on the other, play the most critical role in formulating and implementing improvement plans. Networking among employees within the organization and others outside the organization creates possibilities for the flow of information and ideas that could catalyze improvements and develop solutions to the problems. Similarly norms of behavior or codes of conduct could facilitate the formation of a culture of cooperation and coordination that is geared towards the realization of organizational goals. Clearly, social capital has a significant influence on productivity growth.

Existing management and productivity approaches have indirectly incorporated some elements of social capital. However, the conscious development, nurture and maintenance of sound relationships are areas that have not been fully explored and are likely to provide new insights into productivity dynamics. Even though these relationships are normally considered inputs to the change process and are based on individual initiatives; by placing an organization at the centre of the study, the quality of these relationships could be the outputs/outcomes of the practices followed in the organization. Managing relationships with external stakeholders is emerging as critical to an organization's survival. The application of concepts of social capital would help in understanding their needs better and facilitate the formation of practices that would strengthen linkages with stakeholders. In this context, the following types of relationships assume significance:

- a. relationship between employees and management

- b. relationship among employees with their peers (horizontal) and between seniors and juniors (vertical) within the organization
- c. relationship with others outside the organization
- d. relationship with customers
- e. relationship with the community

These three case studies are focused on the first three kinds of relationships and identify the dimensions and/or sources of social capital that are relevant to the context of this exploratory study. It needs to be emphasized at this stage that social capital and productivity influence each other. Among the three organizations, one of the organizations (Case Study 3) has a higher degree of social capital consistent with its productivity performance while the other two have comparatively lower social capital. There are subtle but clear differences in the various practices that may have led to higher social capital. An analysis of the pattern of responses obtained from the case study organizations coupled with the literature survey reveal the following salient features; some of which only reconfirm what is already known in the literature:

Networking

- a. All respondents reconfirm that becoming a member of internal as well as external groups helped in obtaining information that facilitated higher performance. Membership in external groups was most common for individuals who have taken personal initiatives and the facilitator's role played by organizations needs to be strengthened. The self interest of individuals seems to prompt them to become members of external groups. However, these relationships would become an asset for the organization only if the organizations can create conditions that motivate employees to use them for the organization's benefit. In this interconnected and interdependent world, interpersonal relations become more important, particularly with external stakeholders as these would help in obtaining intelligence about changes in the markets, customer preferences and emerging competition. Personal relations with stakeholders and listening to them would substantially facilitate the building of trust. Organizations must develop policies and practices that will provide employees time and funds to actively participate in the deliberations of external groups, particularly of professional groups, so that they may also develop relationships with others in the same profession. Another point that needs to be emphasized here is that building sound relationships would reduce negative thoughts and minimize resistance to change.
- b. Internal networking was strong in Case Study 3 in which productivity and social capital were high. Also inter-departmental and social contacts outside were rather weak among the organization's employees. However, opportunities to interact with others through internal networking need to be created to facilitate "exchange and combination" to promote innovation. Some practices adopted by the case study organizations to promote internal networking are captured below:
 - i. work-related and issue-based networks such as strategy teams and cross-functional teams

- ii. sharing experiences and ideas through productivity teams and professional forums
- iii. forming other networks such as cultural committees or through sports

These practices create conditions for employees to share their suggestions/ ideas and information which lead to better understanding and positive attitudes towards each other and towards the organization. It results in better satisfaction of their mental, spiritual and social needs to enhance the employees' sense of belongingness and commitment. However, a word of caution is necessary: overdoing networking could be counterproductive as creating networks can be costly.

Sources of Trust

- a. Sources of trust among employees could be greater opportunities to interact within the department and with other departments. While the management of the third case study organization - which exhibited a greater degree of social capital - has created many internal groups, the other two organizations need to promote internal groups more vigorously to facilitate the exchange of experiences and ideas. It would also enhance cooperation and coordination, teamwork and hasten the flow of new ideas and remove doubts harboured by employees – all of which are necessary for implementing alternative ways of accomplishing work. Social capital can act as a trigger for the effective utilization of human capital. The members' social capital facilitates the exchange and the combination of ideas; both recognized as key processes for the creation of new knowledge. Research has shown that trusting relationships are one of the critical factors in the transfer of ideas and practices within the organization, particularly in the case of tacit knowledge. Organizations need to exploit the information technology available for scanning, storing, and accessing knowledge within the organization.
- b. Sources of trust between management and employees and among employees to an extent include providing a common purpose and vision, mechanisms to share knowledge and experiences, enhancing communication channels, training and retraining employees, participation in the strategy formulation process, and above all creating an environment of fairness and equity. Trust in a particular organization would depend upon how an organization takes care of its employees and whether it is able to satisfy their needs. Satisfaction of the employees' mental, social and spiritual needs - besides the physical needs - would affect the employees' motivation and their sense of belonging. It is worthwhile to mention here that employees are likely to develop a greater degree of trust in the organization and work for the greater good of the society rather than profit alone. Job rotation, recognition of teamwork and training interpersonal skills are other means of building trust. The practices that build trust between management and employees are briefly captured below:
 - i. common purpose and vision that go beyond profits

- ii. communication and mechanisms to share knowledge and experiences
 - iii. training and learning environment
 - iv. environment of equity and fairness
 - v. empowerment
- c. Guidance from seniors to improve performance and empowering their subordinates to modify work processes, coaching and training, feedback on suggestions, and treating employees fairly emerged as sources of trust between the seniors and their subordinates.

Norms

Respect for each other, sharing information, cooperation with and helping others, and personal contact between colleagues, emerged as the basic norms or codes of conduct. However, organizations need to develop practices such as rewards and performance management, treating employees based on the principles of fairness and equity, and encouraging interaction on the personal level.

CONCLUSION

In conclusion, it can be summarized that the growth of productivity depends on intangibles such as knowledge, commitment, and motivation - aspects which social capital promotes. Sound and positive relationships facilitate the implementation of change by reinforcing teamwork and pulling together the collective effort essential for achieving higher productivity. Social capital facilitates the generation of ideas and transfer of best practices within the organization. Promoting networks and practices - between management and employees and among employees themselves - that build trust should receive top priority. It is imperative for management to implement practices that allow people to interact with each other in a positive manner as poor interpersonal relations and very strong group bonds can result in low productivity. Some practices identified in the case study organizations could be of use to others who desire to leverage on social capital to improve productivity. However, it is worthwhile to mention that the case study organizations did not deliberate design and implement practices to promote interpersonal relations but were part of the current management and productivity approaches.

One needs to go beyond the conventional view of social capital that is focused on trust, networks, and norms to formulate specific views of social capital in the context of the organization's setting. The meaning of these three dimensions which are directly related to productivity and the processes that help managers to understand and implement social capital better in organizations needs to be clarified. In addition future areas of research in social capital could be in strategic alliances, joint ventures, customer relations, community relations, as well as exploring the impact of specific practices used for building relationships between employees and management and among employees themselves, to understand the relationship between productivity and social capital.

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WHAT CAUSED THE DECLINE IN TFP?

The lost decade, suggesting a period of low economic growth in the 1990s and early 2000s, has been frequently mentioned by Japan's mass media in the past five years. The annual average real GDP growth rate in the 1990s remained at just one per cent, which is substantially below the four per cent growth rate achieved during the 1980s. The major portion of the decline in GDP growth in the 1990s can be attributed to the sluggishness of total factor productivity (TFP) which is defined as the portion of growth that can not be explained by changes in either labor input or capital stock. According to Inaba (2002), the TFP for Japan's economy registered a slight decline in the 1990s, whereas it had been a major driving force for economic growth in previous decades. What caused the drastic decline in TFP in Japan in the 1990s?

Since TFP based on the above mentioned definition includes all residual factors other than labour input and capital stock, it is affected by many factors including quality of human resources, changes in the level of technological competitiveness, and external shocks such as oil price increases. It is also well known that TFP is affected by business cycles. That is, once the economy moves into a downturn, the contribution of TFP to economic growth decelerates, and, during an upturn, an acceleration of TFP is observed.

As for labor, it is unlikely that the quality of Japan's human capital or labor force deteriorated during the 1990s. The level of education received by Japan's labor force has been stable over the past twenty years. The level of technological competitiveness is reflected by the amount of R&D activities. R&D expenditures in Japan remained relatively high in comparison with those in other OECD countries. The country has kept a large current account surplus – yet another illustration of Japan's international competitiveness. Judging from the quality of Japan's human capital and its level of technological competitiveness, it is difficult to conclude that Japan's international competitiveness has eroded drastically in the past decade.

Based on the abovementioned observations, it may be worthwhile to examine the importance of social factors on productivity—factors that are often overlooked by economists. Although social factors are relatively recent issues for economists, the aspect of these factors which deal with relationships among peers in firms have always drawn the attention of scholars in the field of business administration. Good relationships often enhance labor productivity by facilitating the communication among peers with different backgrounds. Asymmetry of information is always in existence, even between various divisions within the same firm. The larger the firm is, the more frequently it is present. It is of vital importance for any company to take into account the effectiveness of the network among workers to moderate the information imbalance between various divisions of the same firm. For instance, Carlos Ghosn, CEO of Nissan, created nine cross-functional teams (CFTs) consisting of workers from different divisions when he was creating Nissan's revival plan. These CFT members included designers, production engineers, procurement officers, marketing specialists and so on, and they facilitated communication among peers with different backgrounds. The CFTs eventually led to better communication among the various divisions.

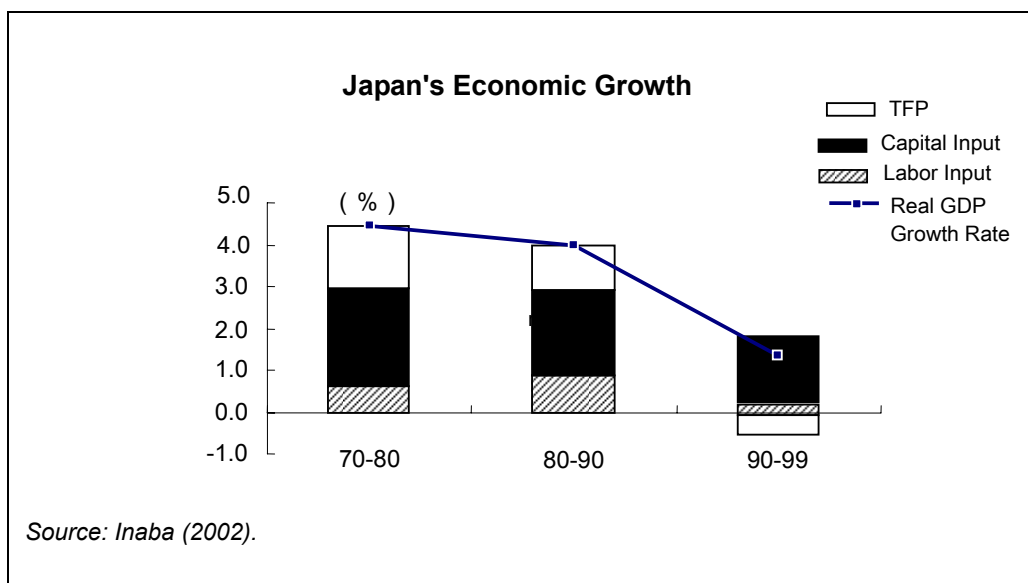


Figure 1

However, it should be noted that there could be cases in which social ties among peers may work against the cause of the society. Their presence can eventually hurt the overall performance of the firm. Exclusive social ties may also have negative impact. In other words, such relationships among peers may sometimes be accompanied by a dark side. For instance, Mitsubishi Motors seems to show an example of the dark side of intra-company social ties. It carried out company-wide operations to conceal defects on their cars, which would normally require recalls. The company has suffered from a series of recall scandals since 2000. The first incident included cases in the 1960s. It is amazing that a huge organization such as Mitsubishi, with over 60,000 workers (subsidiaries included) had successfully hidden the defects for over thirty years¹. The members of the company had very close ties among themselves when it came to the control of information related to recalls. Obviously, their efforts to put a lid on their problems worked against TFP since they devoted their time and energy to wrong causes – causes that had nothing to do with their core operations, including production, sales, and R&D.

The cases of Nissan and Mitsubishi Motors seem to suggest the importance of social factors, which are often mentioned as social capital, in the analysis of TFP. If some social factors such as trust, norms, and networks can enhance or deteriorate the performance of a firm, then obviously a lack of them, or a deterioration in or wrong application of them should cause a corresponding decline in firms. Can we apply these anecdote-based lessons to the entire economy? If so, what are these social factors which can affect economic performance? How can we measure them? Through what kind of precise processes and to what degree do they affect the economy? Do they differ from one country to another? The purpose of this paper is to provide bases for discussion on these questions.

¹ There have been numerous newspaper articles on the recall-related incidents of Mitsubishi Motors. For instance, see Nikkei articles on pages 2-3, 23 August 2000.

DEFINITION OF WHAT WE ARE DEALING WITH

The best-known definition of social capital is given by Putnam (1993): “social capital – refers to features of social organization, such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated actions.” According to OECD (2001), social capital is defined as “(social) networks together with shared norms, values, and understanding that facilitate cooperation within or among groups.” As for trust, which is treated as one of the most important elements of social capital, this OECD paper views it as “both a source and an outcome of social capital as well as being a very close proxy for many of the norms, understandings, and values which underpin social cooperation.”

Coleman (1988) puts emphasis on the functional aspects of social capital. Social capital is “not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors—whether persons or corporate actors—within the structure.” As social structure to facilitate social capital, he pointed out the importance of closure of social networks. Norms of reciprocity are enhanced among the members of networks if the network is closed. Norms of reciprocity are more rigorously applied to the members of a community, and thus, people become more conscious of their reputation, if the social networks to which they belong are closed.

Various scholars have different definitions of social capital, based on their theory of networks. Burt (2001) advocates a theory of structural holes: “The structural hole argument is that social capital is created by a network in which people can broker connections between otherwise disconnected segments.” In this sense, social capital is the connection between different groups. Burt’s notion is that social capital is created through the effort to fulfill the gap between different groups or structural holes.

Social capital, in many cases, takes two forms: structural and cognitive (Groetaert and van Bastelaert, 2002). Networks such as associations and casual ties with neighbors and peers are structural social capital, and norms, trust, values, and understandings are cognitive social capital – thus, whereas the former is objective, the latter is subjective and, therefore more difficult to deal with.

Social capital is found at various levels of daily activities: macro, micro, and in-between (meso). At the micro level, social capital is found among individuals and households at various settings, such as workplaces and in their communities including firms. On the other hand, based on the World Values Survey, social capital mainly reflects its aspects at the macro level. It does not imply relationships with specific individuals or groups.

Among the elements of cognitive social capital, trust is treated as one of the key elements. Uslaner (2002) divides trust into two categories: moralistic and strategic. “Putting faith in strangers is moralistic trust. Having confidence in people you know is strategic trust.” He also distinguishes between particularized trust and generalized trust:

“We might learn to trust our fellow club members more, but we are merely reinforcing particularized trust (in our own kind) rather than generalized trust, the idea that ‘most people can be trusted’ ” (Uslaner, 2002, p.5).

Another important aspect on the nature of social capital, raised by Putnam (2000), is the distinction between bridging (inclusive) and bonding (exclusive) social capital. Bridging social capital is related to Uslaner’s general trust and Burt’s structural holes. Bonding social capital is related to particularized trust and Coleman’s closure of networks.

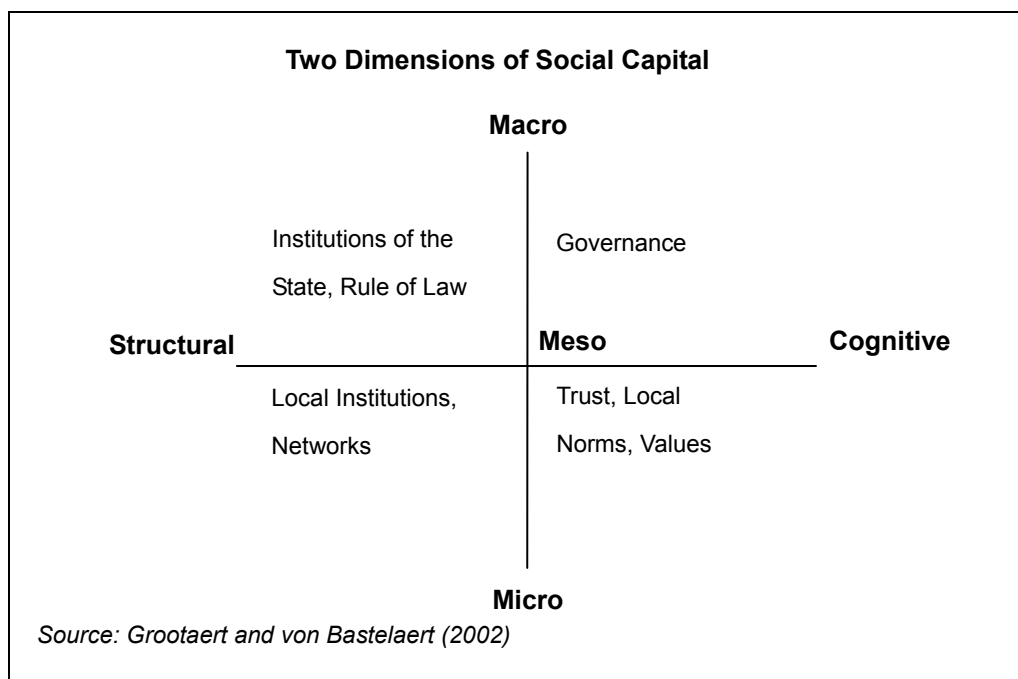


Figure 2

Whereas bonding social capital strengthens the ties within exclusive groups, bridging social capital strengthens ties between different kinds of people. The former reinforces the norms of reciprocity within exclusive groups, and thus creates trust among group members. The latter disseminates information between different kinds of people, and thus creates trust between groups.

In this series of APO studies, we will use a rather broad concept for social capital based on the definition by Putnam; “social capital refers to features of social organization, such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated actions. In other words, social capital consists of intangible assets or resources including networks, norms, trust, and so on.

HOW DOES SOCIAL CAPITAL AFFECT ECONOMIC ACTIVITIES?

There are many cases in which social capital may have an impact on economic activities. The most exhaustive list is found in Omori (2003). He pointed out the following as possible economic channels through which social capital functions:

- Social capital, especially trust, reduces the costs of contracts and legal actions.
- Social capital, especially trust, shared values, and understanding, makes negotiations more fruitful.
- Social capital may play an important role in the governance of firms.
- Social capital can create business opportunities by facilitating the exchange of semi-confidential information and mutual encouragement.
- Social capital can enable local communities to differentiate themselves

from others, and this may provide new business opportunities and also give birth to a new local culture.

- Social capital may influence land value.
- Social capital may increase economic independence at the regional level, leading to higher income levels.
- Social capital, especially the security level of society, makes some businesses profitable and others non-profitable.
- Social capital can provide an important explanation for the difference between the going concern value and the liquidation value of firms.
- Social capital can facilitate information exchange which would make dynamic resource allocation more efficient.
- Social capital can play a role in managing public facilities and services.
- Social capital can enable an economy to take advantage of network externalities.
- Social capital can encourage collective consumption.
- Social capital has a risk-taking function which can influence the savings ratio.
- Social capital can encourage investment in human capital and promote the pursuit of challenges.
- Good social capital can make government activities more efficient.
- The non-economic benefits of social capital may have important implications on fiscal balance.

Some of these channels should be subjects of closer examination; Omori's list covers most of social capital's channels of economic impact. From the viewpoint of productivity improvement, social capital is a powerful tool for alleviating transaction costs, mainly by adjusting the asymmetry of information. In business, this adjustment is both inter- and intra-company. In the case of large companies, workers often create invisible barriers between divisions, thus leading to an asymmetry of information within the firm. If an asymmetry of information exists, it becomes more costly to get the required information.

HOW IS SOCIAL CAPITAL MEASURED?

Most scholars agree on the importance of social capital in economic activities. However, when it comes to measurement, the current situation in Japan leaves much to be desired. As for measuring social capital in networks, interviews can be carried out to find out the density and nature of these networks among members of certain social groups. Unfortunately, no public data on these aspects are available.

In terms of Uslaner's generalized trust, the Institute of Statistical Mathematics carries out the *Study of the Japanese National Character* once every five years. This study contains three questions related to interpersonal trust:

1. Would you say that for most of the time, people try to be helpful, or that they are mostly just looking out for themselves?
2. Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?
3. Generally speaking, would you say that most people can be trusted or that you can not be too careful in dealing with people?

The most recent study was conducted in 2003. Data on the above three questions are available for 1978, 1983, 1993, 1998 and 2003. With regard to the first question, the portion of people who answered “People are trying to be helpful” has increased steadily from 19% in 1978 to 34% in 2003. Essentially the same tendency is seen for the second question. The portion of people who take the cautious view (that most people would try to take advantage of you) has declined from 39% in 1978 to 25% in 2003. However, as for the third question (that most people can be trusted), the ratio choosing the affirmative has increased rapidly between 1978 and 1993, from 26% to 38% – before declining to 33% in 1998 and remaining at that level in 2003. Based on this question in the *Study of the Japanese National Character*, generalized trust seems to have deteriorated in the 1990s. But according to Yoshino (2002), interpersonal trust, measured by the above three questions combined, was relatively stable over the two decades from 1978 to 1998.

Using a measure to get a general idea on social capital-related activities, Yamauchi (2003) created a civil activity index based on three indices, namely, activities related to non-profit organizations (NPOs), donations, and volunteers. Each part consists of three sets of questions. The answers to these questions were obtained from a cross-section of the 47 prefectures in Japan.

The *NPO Index* consists of:

1. the share of NPOs in the total number of firms and in each prefecture,
2. the share of non-firm organizations in the field of social services, and
3. the share of NPOs in total employment.

The *donation Index* is calculated based on:

1. a household’s propensity to donate,
2. the ratio between cooperative donation and prefecture income, and
3. the share of the total population who donated blood.

The *volunteer Index* includes:

1. the share of the total population who conducted volunteer activities,
2. the average number of days dedicated to volunteer work per volunteer in each year,
3. the share of the total population who volunteered for the prefecture’s social welfare council.

Yamauchi’s civil activity index shows a kind of propensity to cooperate in local community-level activities. It could be a valuable tool to measure the level of social capital if time series data were available.

The Japan Productivity Center for Socio-Economic Development conducted a detailed survey on the contents of trust held by workers in the private sector. Workers were asked about their degree of trust (rated one [lowest] to five [highest]) toward management, employment/personnel policies of their workplaces, labor unions, local governments, national policies and institutions, and the general public. According to the survey, the workers’ trust towards management was relatively high, while trust towards national institutions and policies of the central government were considerably low. Since the survey was conducted just once (in December 2003) no analysis can be made on the trend in the 1990s.

In any case, it is always difficult to measure the degree and the nature of trust. One way to deal with the difficulty in obtaining such measurements is to use data on security or distrust - such as crime rate, frequency of arson, divorce rate, and

unemployment rate. In the 1990s, all of these data implied severe deterioration of social order. During the last decade, from 1990 to 2000, the number of general offences under the penal code increased by 80%, arson increased by 48%, divorce increased by 68%, and the unemployment rate more than doubled from 2.1% to 4.7%. As far as the trends of these proxy indices are concerned, the state of social capital in Japan seems to have declined over the past decade.

CASE STUDIES

According to the hypotheses provided by Omori and many others, better social capital at firm level is strongly related to TFP - mainly through alleviation of asymmetry of information, decline in transaction costs, and better collective works. However, it is difficult to measure the impact of TFP on social capital in the corporate sector as a whole due to lack of appropriate measurements. Therefore, we will start the discussion by citing specific case studies.

Nissan

Nissan is an auto manufacturer whose history can be traced back to 1911 when the founder, Mr. Masujirou Hashimoto, opened an auto-manufacturing shop called Kaishinsya. It produced its first car in 1914. The company was barely profitable until the middle of the 1930s because the domestic market had been dominated by GM and Ford. During the Second World War it expanded its production, mainly due to the increase in military orders, just like many other Japanese auto manufacturers.

After the war, the company competed fiercely with Toyota for the top position in Japan's auto market (which had expanded rapidly throughout the 1960s and 1970s). Nissan also made successful entries into overseas markets in the 1970s, especially after the first oil shock in 1973. Although Nissan's sales force was less aggressive than Toyota's, the former firm enjoyed a high reputation based on the quality of its products. It was also well-known for its powerful labor union. However in the 1990s, after the bubble burst in the later half of the 1980s, Nissan started to run a deficit. Its production declined from three million cars to 2.4 million in nine years. Beginning in 1992, it registered losses every year except for 1996. As shown in Figure 3, its return on assets was substantially below the industry average in the 1990s. As of the end of the 1998 fiscal year, Nissan's liabilities, excluding those for auto loans, amounted to over two trillion yen. Most employees of Nissan realized that the company was on the verge of bankruptcy when management engaged in M&A negotiations with potential buyers in 1998.

Unlike many other firms in financial difficulties, Nissan maintained a high level of productivity in its manufacturing operations. In addition, at the end of the 1998 fiscal year, it also maintained huge long-term financial investments in 1,394 firms. For instance, it held 4% of the outstanding shares of Fuji Heavy Industries, a Subaru manufacturer. This investment left much to be desired in terms of financial and strategic potential if not for the fact that it created executive posts for some ex-officers of Nissan. Nissan was also free of the harmful effects of huge bubble economy (occurring in the latter half of the 1980s) where real estate investments caused the bankruptcies of many other firms in the 1990s. In sum although the firm had large debts, it was in financial trouble not because of a lack of resources but rather due to an abundance of it. The former management team of Nissan could not effectively utilize the assets under their control. They put the company in a situation that generated negative synergy among its various resources. In short, for Nissan, one plus one added up to less than two or even negative numbers in the 1990s.

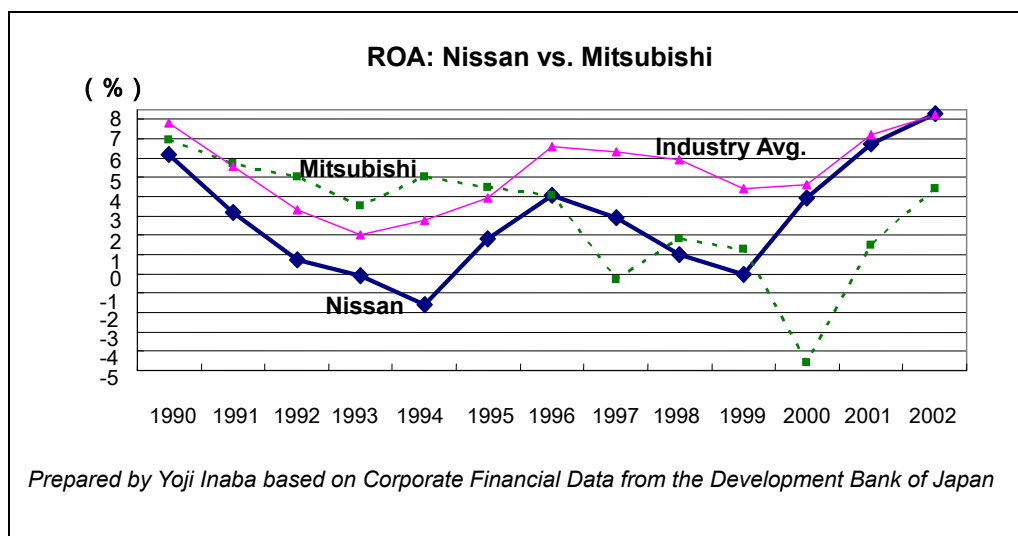


Figure 3

Upon his appointment as the chief operating officer (COO) of Nissan in June 1999, Mr. Carlos Ghosn created nine cross-functional teams (CFTs) consisting of managers from different divisions as part of Nissan's revival plan. All the CFTs included employees from different divisions with different skills, such as designers, production engineers, procurement officers, marketing specialists, and so on - thus facilitating communication among peers of different skills. Each CFT provided two executive committee members (ECMs). Under the two ECMs, a pilot, selected from middle class managers, chaired the CFT. The pilots directly reported to Mr. Ghosn regularly on the progress of their work. The CFTs reduced intra-company friction through establishing better communication networks. They also enhanced the motivation among workers below the middle management level because the CFTs consisted of these relatively young people. The CFTs helped to alleviate workers mistrust towards top management thus creating trust in the new management team. In short, Mr. Carlos Ghosn revitalized Nissan by mobilizing intra-company social capital through the CFTs. Although social capital is not the only factor that contributed to the revitalization of Nissan, it seems to have been of vital importance in improving the performance of the workers.

It should be also noted that the performance of each member of the CFT is reflected in the employee's career development through discussions held in the Nomination Advisory Council (NAC). The NAC, which meets monthly, is in charge of nominating the most suitable candidates for 200 senior positions (reaching up to the CEO level) in Nissan's worldwide operations. For each post, five candidates are chosen by the personnel department and then screened by the NAC. Of the five candidates, two are chosen from different fields. The NAC consists of the member from the Executive Committee. It provides basic information on worldwide human resources within the company. Those who made contributions to Nissan's revitalization plan and to its implementation have been promoted through the NAC. Thus, the NAC has complemented the operations of the CFTs. In addition, the NAC promotes cross-divisional exchanges of human resources throughout the world. For instance, the purchasing manager of Nissan

Mexico had been nominated for the CEO position of Nissan South Africa - a position that had been considered a senior post for Japanese workers in the overseas sales division. The CEO position for the Brazilian operations, which used to be held by an employee from the sales division, was given to another with an engineering background.

Nissan's case suggests possible paths through which social capital functions. Firstly, social capital may reduce transaction costs among economic entities and individuals. Communication among different divisions in large organizations such as Nissan is always time-consuming and costly. Quite frequently, each division behaves like an independent company thus creating information barriers around it. Mr. Shuji Narazaki, a member of one of the original CFTs states that "at first, each member of the CFT acted like a representative of the division he or she originally belonged to. But (by reporting directly) to the COO and (the) Executive Committee (we) realized who was really in charge. The invisible barriers (thus) melted down."

Secondly, social capital may furnish an improved sense of cohesion, which in turn would promote cooperation among workers or members of different communities. CFTs seemed to create synergy or some positive externalities in Nissan's operations. Mr. Ghosn's success can be, at least partly, attributed to the fact that he made his colleagues understand how their work was related with one another. It was a creation of new social capital in the form of new networks among workers.

Thirdly, these improvements led to more optimistic views on strategic trust, since the probability of reciprocity – that is, that your favor will be returned in the future – is higher than before. Previously, workers who were ignorant of or indifferent to the activities of other sections did not mind if they carried out activities which were contradictory to those of other divisions. In such a situation, one could not expect a virtuous cycle of reciprocity. Once the workers had a better understanding of what others were doing, the situation was completely different. In other words, as mentioned before, people now have a fuller understand how everyone's work is interconnected with each other. They exhibit more coordinated behaviors in which the norms of reciprocity can exert its positive impact on the performance of the firm.

Fourthly, the clear stance on corporate governance as exemplified by the COO enhanced the norms of the company and may have reduced incidences of sabotage and corruption. Mr. Ghosn publicly made it clear that he would take full responsibility for the operational results of Nissan by declaring his willingness to resign from the COO position if the company continued to registered losses. These changes helped to create trust and a sense of cohesion among the workers of Nissan.

In sum, the members of the CFTs provided a bridging type of social capital by fulfilling what Professor Burt defined as structural holes among various divisions within the company. The CFTs brought together people of different skills and helped to create synergy among different groups. Under the old promotion system in which employees stayed in the same division for most of their corporate life, many employees had remained more loyal to their division heads than to their company. The NAC changed this system by showing clearly who was in charge of the promotion of workers. Thus, the synergy generated by the CFTs is effectively supplemented by the cross-divisional personnel system.

Mitsubishi Motors

Mitsubishi Motors ("Mitsubishi") seemed to be in a much better position than Nissan in the 1990s. As shown in Figure 3, its ROA exceeded that of Nissan except in 1997. Mitsubishi was one of the most profitable Japanese auto manufacturers in the first

half of the 1990s. Thus it seemed natural that DaimlerChrysler picked Mitsubishi, instead of Nissan, as its partner in 1999. Mitsubishi has enjoyed a durable and reliable corporate brand image. While its products may not have been sophisticated in terms of design, consumers in general considered the company to have a good brand image - a company whose products would last for a long time. In fact, the new corporate slogan which Mitsubishi adopted in 2000 was "high quality and durability."

However, the brand image of Mitsubishi has been severely tarnished by a series of product recall scandals involving the company's top management. These incidents, first revealed in 2000, dated as far as the 1960s when the company failed to report incidents requiring product recalls to the authority. They even created a system to hide these incidents. It is astonishing that they had successfully concealed their products' defects for such a long time. The company has chronically suffered similar problems since 2002. In April 2004, DaimlerChrysler decided to cancel its alliance with Mitsubishi. Mitsubishi's market value plunged by 80%, from over 900 billion yen on 13 April to less than 200 billion yen on 4 August in the year of 2004.

The case of Mitsubishi is remarkable in the sense that no information was leaked for thirty years despite the involvement of many workers in these recall-related works. The Mitsubishi case seems to illustrate the negative aspects of the strong bonding type of social capital. The workers in Mitsubishi maintained strong ties among themselves when it came to concealing data on recalls.

However, this does not mean that there is no role for bridging social capital; Nissan's CFTs clearly show that there is. Phoenix Capital, the new major shareholder of Mitsubishi in May 2004, immediately took the lead in bringing about corporate reform by asking the company's management to implement reform measures through CFTs. The company had had very strong bonding social capital on a particular issue which unfortunately went against corporate ethics, leading to its decline.

It is important for management to create bonding social capital so as to foster a sense of cohesion among workers. Bonding social capital enhances trust and norms of reciprocity among members. However, excessively strong bonding social capital may force members to mind only intra-group relations, and may eventually lead to a situation in which they neglect the most basic requirements (such as safety) for their products.

Shimadzu Corporation

Shimadzu Corporation, a manufacturer of scientific instruments in Kyoto was established in 1875. The company is unique in the sense that its researchers tend to put their own promotion on the back burner. One such researcher is Mr. Kouichi Tanaka, the Nobel Prize winner for chemistry in 2002. He says in his autobiography, "What is far more important than financial reward is the joy I get from experiments and the sense of fulfillment that I produced technologies useful for our society." In his book titled *The Best Blunder in My Life*, he states that he did not take the company's internal tests required for administrative positions seriously because he wanted to remain in the forefront of research work. According to Mr. Hiroyuki Fujii, a director of human resource development of Shimadzu, the firm has a corporate culture in which the workers do not concern themselves with promotion. Over 70% of the employees of Shimadzu Corporation have natural science backgrounds. People in Kyoto call the company Shimadzu-han, attaching the Kyoto dialectic ending for *san* to its name, a term usually reserved for persons' names - thus showing their feelings for the firm through personification.

Shimadzu produces over one hundred products, including medical devices such as MRI machines and science and process instruments. Many of their products are

semi-customized. Few of their products are mass-produced. The firm is a typical example of a knowledge-intensive operation with a large number of products manufactured in small quantities. Although the core of their business has been in the manufacture of instruments for use in the fields of chemistry and physics, the contents of their product lines have always been changing, reflecting technological progress. The company's founder, Mr. Genzo Shimadzu, launched the first thermal balloon in Japan in 1887. His son, Genzo, named after his father, acquired 178 patents in 12 countries. The firm was a pioneer in X-ray medical devices. Now it is one of the major producers of MRI devices. To survive, the firm has constantly engaged in technological innovation to create new lines of business. The company's viability depends on whether it can motivate its R&D workers to keep up with the latest technology. According to Mr. Shigehiko Hattori, the CEO of Shimadzu, "We always have to provide interesting themes which fulfill both the intellectual curiosity of our researchers and the needs of the market."

In the case of Nissan, they introduced CFTs and the NAC as apparatuses to create the bridging type of social capital among various divisions since their products (automobiles) are a result of cross functional efforts. Nissan has been in the same core business, automobile manufacturing, ever since its establishment.

In contrast, Shimadzu's lines of products are widely dispersed, semi-customized, and constantly changing. Their need for creating company-wide CFTs or creating an apparatus for bridging social capital among different divisions is not as strong as Nissan's. However, this does not imply that companies like Shimadzu have no need for bridging social capital. Such companies require bridging social capital among researchers with different backgrounds. Mr. Tanaka was awarded the Nobel Prize for chemistry, but he majored in electrical engineering in college. His professional achievement made him a member of a product development team and he was also engaged in sales activities for his products (only one unit of the product based on his findings was sold).

In his autobiography, Mr. Tanaka quoted comments by Dr. Svante Lindqvist, director of the Nobel Museum, on the features necessary to foster creativity. They are concentration (a "high density" of individuals), diversity of competence, communication, networks, informal meeting places, mobility, resources, freedom, competitiveness, and structural instability. Many of these are also elements of social capital. In sum, a high technology-oriented company like Shimadzu requires a different type of social capital from that of a consumer goods manufacturer like Nissan.

The firm requires a certain degree of loyalty from its researchers. Bonding social capital, which creates exclusive ties among members of the firm, may be needed to create a sense of cohesion among workers. Workers should share the same corporate values. It should be noted that in the process of creating bonding social capital, bridging ties among workers with different backgrounds or bridging social capital would also be required. For instance, Shimadzu registered a loss amounting to ¥10,578 million in 2001 and another loss of ¥8,118 million for the fiscal year of 2002. It was imperative for the management to create a strong bonding type of social capital (something that was originally thin among the workers of the innovation-oriented company) to recover profitable operations. Mr. Hidetoshi Yajima, CEO at that time, had interviewed all the middle management people. He had also implemented the revitalizing plans originally prepared by the cross-functional team in the 1990s - plans which up to that time had been neglected. When he needed cooperation from workers, he depended upon bridging social capital. The degree and quality of social capital required for Shimadzu are quite different from what was required for Nissan.

LESSONS FROM CASE STUDIES

Both bridging and bonding social capital are required in the daily operations of firms. Bridging social capital is imperative to span gaps between various people with different backgrounds, whereas bonding social capital is needed to create a sense of cohesion among workers. The former will be useful for technology-oriented firms in creating new products while the latter will be indispensable at the manufacturing facilities of mass-produced products.

However, bonding social capital is a two-edged sword. As Putnam (2000) pointed out, “Bonding social capital, creating strong in-group loyalty, may also create strong out-group antagonism. For that reason we might expect negative external effects to be more common in this form of social capital.” This was exactly the case with Mitsubishi. The firm used to enjoy a very good reputation with a highly esteemed brand image which helped to create a strong sense of cohesion and pride among its workers. Being a member of Mitsubishi fostered strong bonding social capital. Unfortunately, it led to a corporate culture in which workers minded only in-group relations and lacked consideration for out-group concerns, namely their customers.

Figure 4 shows the trend of TFP for Mitsubishi and Nissan. Contrary to the trend in ROA shown in Figure 3, the TFP of Mitsubishi stayed below that of Nissan as early as 1995 and remained at that level until 2001. On the other hand, Nissan’s TFP made a phenomenal recovery in just three years, from 2000 to 2002. In fact, the degree of improvement in Nissan’s TFP is much more substantial than that of its ROA. Although TFP includes not only social capital but also many other factors, there is no doubt that the state of Japan’s social capital is, to a certain degree, reflected in the trends of the TFP of both Nissan and Mitsubishi.

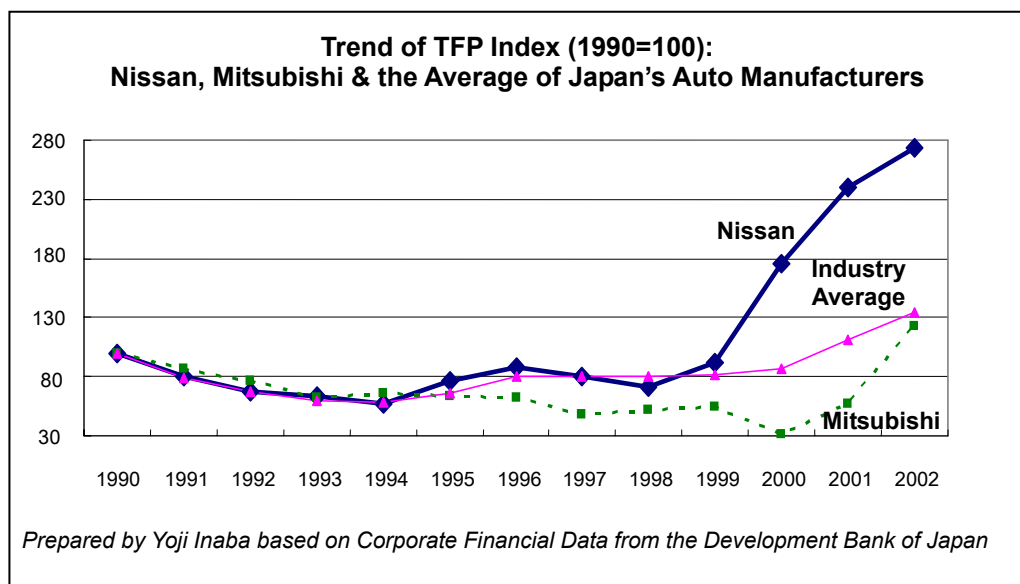


Figure 4

Nissan’s case also illustrates the importance of bridging social capital, which tends to be put on the back burner in the manufacture of mass-produced consumer goods.

There have been efforts to create bridging social capital between various functions and/or offices of the same divisions - efforts such as concurrent engineering and the just-in-time production system of Toyota. However, an emphasis on creating company-wide bridging social capital has rarely been seen among Japan's auto manufacturers until Nissan's CFTs.

It should be noted that, although CFTs were originally intended as an apparatus to create bridging social capital within the firm, they were also devices to expand the scope of bonding social capital from the divisional level to the company level. In other words, bridging social capital will eventually be transformed into bonding social capital in a case like Nissan.

Shimadzu is quite different from Nissan. Shimadzu has to constantly produce a variety of high-tech products in different fields, whereas Nissan essentially produces one consumer good. Shimadzu maintains a somewhat academic atmosphere for its researchers to enhance creativity and rigorous cost controls to ensure profitability, especially in times of financial difficulties (as was the case in 2001 and 2002). It does not need strong bonding social capital. In many cases, merely ensuring that workers understand the basic cause of the firm is sufficient. Only weak bonding social capital is required as long as workers share the same values of the company's culture (the exception being during a period of continued loss). However, the bridging type of social capital among researchers both inside and outside of the firm is indispensable for Shimadzu's R&D activities. Thus Shimadzu's efforts in these aspects are quite different from those of Nissan. Nissan created CFTs to coordinate work between divisions so as to create cars in accordance with customers' needs. They concentrated their resources on one major field – the production of cars. In the case of Shimadzu, there is no need to formalize bridging social capital by establishing CFTs. It was more productive for Shimadzu to create informal bridging social capital. In other words, Shimadzu's bridging social capital will never be transformed into company-wide bonding social capital.

As shown in Figures 5 and 6: in comparison with the industry average, Shimadzu performed much better in terms of TFP than in its ROA. In other words, as far as creativity was concerned, the performance of Shimadzu had been better than its financial performance. These two charts suggest that the recent financial difficulty faced by the firm was not caused by a deterioration in their innovative abilities but by other factors such as mismanagement of their inventories and sale forces.

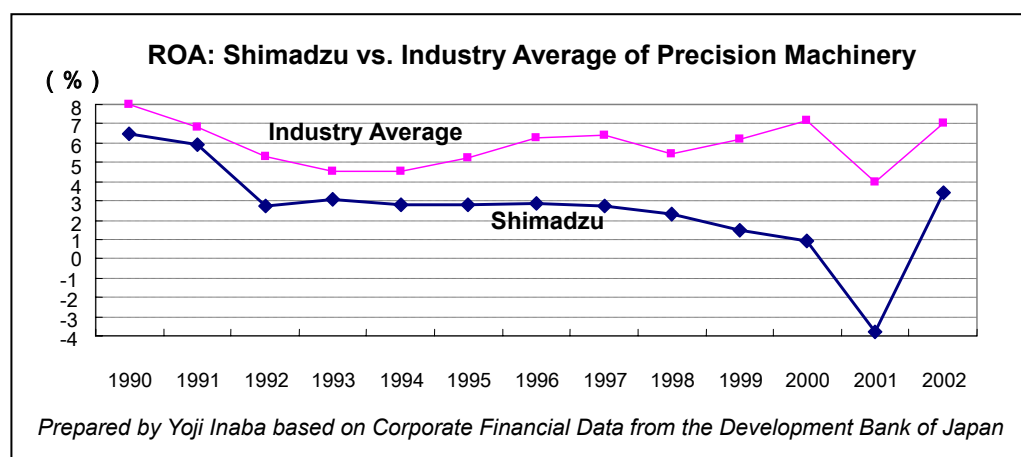


Figure 5

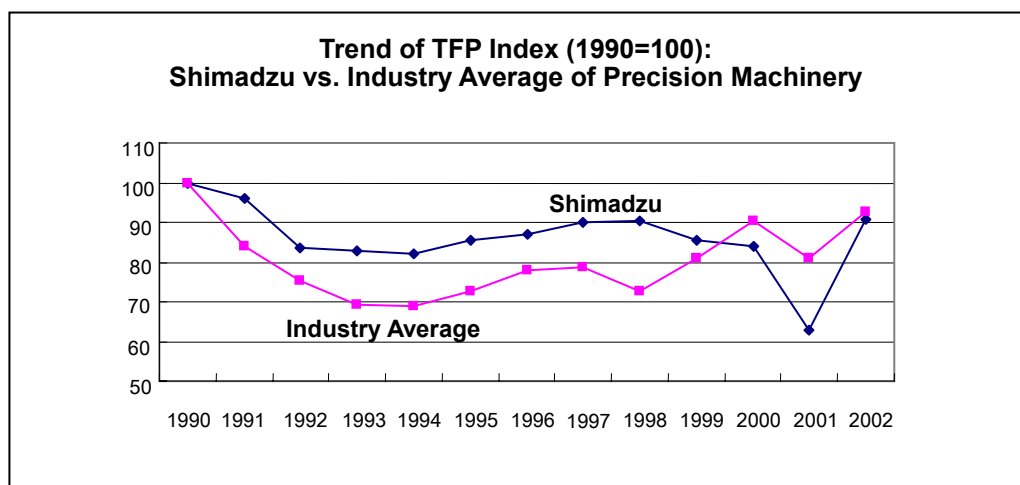


Figure 6

CONCLUDING REMARKS: A SEARCH FOR THE MISSING TWENTY PER CENT

As Fukuyama (1995) described:

“Neoclassical economics provides a powerful tool to reveal the basic nature of free market systems. However, it is not perfect. Its fundamental model based upon rational, self-interested human behavior is correct about eighty per cent of the time. But, there is a missing twenty per cent of human behavior about which neoclassical economics can give only a poor account. As Adam Smith well understood, economic life is deeply embedded in social life, and it cannot be understood apart from the customs, morals, and habits of the society in which it occurs. In short, it cannot be divorced from culture” (Fukuyama, 1995, p.13).

Social capital always reflects some aspects of culture. In that sense, it is a concept beyond economics. Any study about the economic impact of social capital should be carried out in the context of cultural backgrounds and should reflect values inherent in the culture. By the same token, the way social capital functions in daily businesses may differ from one firm to another. In addition, just like constant changes in the contents of culture, the nature of social capital at firms may change when dynamics are taken into account.

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REPUBLIC OF KOREA

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INTRODUCTION

The concept of social capital has become increasingly popular in a wide range of social science disciplines. A growing number of sociologists, political scientists, and economists have invoked the concept of social capital in their search for answers to a widening range of questions that confront their own fields. Social capital - roughly understood as the features of the structure of social relations that facilitate action - has informed the study of family and youth behavior problems, schooling and education, public health, community life, democracy and governance, economic development, and general problems of collective action.

Robert Putnam defines social capital as “features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions.” In order to further develop social capital as an analytical tool, the contribution of ‘capital’ to the concept must be clarified. Trust, norms, and networks are certainly social elements. But why should these ‘features of social organization’ to be considered as capital? And should they be considered in the same vein as capital goods? In order to answer these questions, we begin by drawing a distinction between social capital resources and capital goods. Here social capital resources refer to the social ties of a network. These resources are recognized by individuals as information channels and generalized social support.

In contrast, capital goods, as defined by economic theory, are reproducible factors of production that reduce the unit cost of production for tradable final goods of consumption. As tacit or recognized claims on the behavior of others in one’s network, norms are the main form of capital goods in which social capital resources can be invested. Norms can be relied upon, just as machines on a factory floor, to help produce individual or collective goods. Like machines, norms can break down. But because they can be repaired with further investment of social capital resources, norms are rightly regarded by individuals in the same social network as fixed factors of production. Norms should not be elevated to the status of social capital resources because they are specific to some subset of production possibilities (even though they can have unintended consequences for other production processes beyond foregone opportunity costs). The information channels and social support that reside in social network ties are substantially more fungible than the norms that constitute capital goods.

Because all of these capital goods can, in theory, increase learning by lowering the cost of its pursuit, liquid financial capital resources and social capital resources should be treated as substitutes rather than complements.

DEFINITION OF SOCIAL CAPITAL

Robert Putnam defines social capital as “features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions.” What is broadly agreed is that social norms and/or social networks are key elements of social capital, and that trust is also part of it or, at least, a close proxy

for it. Social capital is widely seen as a resource that facilitates cooperation within or between groups of people. It can arise in the relationships present in many areas of life.

To be identified as capital, the potential benefits derived from feelings of sympathy and obligation suggest that social capital has capital-like qualities. When the word capital is used in other contexts, it suggests an article that is durable or long lasting. The word capital also suggests that this article retains its identity even after repeated use and that it can be used up, destroyed, maintained, or improved. Questions that arise naturally in a discussion about capital include: what services are provided by the capital? What are the processes by which the capital is used, maintained, or improved? Who controls the capital or where does it reside? How are capital services measured and valued?

An important feature of social capital, compared to other forms of capital, is that it is social in origin. Financial capital originates in financial markets. Human capital originates in educational and training settings in which human skills and talents are taught and learned. Physical capital originates in the employment of physical goods crafted to produce services. Social capital thus originates from social relations.

Social capital is owned by the object of feelings of sympathy and obligation. A child is the object of his or her parents' feelings of sympathy and obligation. Thus, social capital originating from the parents resides with the child. A leader of an organization who represents the views of the organization may be the object of the organization's feelings of sympathy and obligation. Thus, the leader may receive from the organization members' contributions and other measures of support to increase the likelihood of his or her performance.

Finally, whether or not social relations increases or reduces social capital depends on whether the former is perceived as synergistic or competitive. Synergistic activities such as mutually beneficial economic exchanges, participation on the same team for a mutually beneficial prize, supporting causes in which there is mutual agreement are likely to increase the stock of social capital. On the other hand, activities in which the outcome is competitive – whereby one person wins only if the other person loses – not only uses up social capital as it happens, but may in a rush, destroy one's social capital if there is significant conflict.

DIMENSIONS OF SOCIAL CAPITAL

The key dimensions of social capital gathered from previous studies reveal a strong consistency among researchers in the dimensions conjectured to be subsumed within the social capital construct. First, most authors agree that social networks and/or social norms are key elements of social capital. Second, most authors see 'trust' as being either an additional element of social capital or a close proxy for the level of social capital present in a community. Trust, norms, and networks were included in all the previous studies.

Social norms are 'informal rules' that condition behavior in various circumstances. Specific social norms include surrendering seats to the elderly on public transport and not littering, while generalized norms may include tolerance, behaving honestly and helping those in need.

A social network is an interconnected group of people who usually have an attribute in common. For example, they may like a particular sport or may share the same occupation or religion. At a more micro level, families and groups of friends will exhibit network characteristics. Different groups often have their own set of social norms and

levels of mutual obligation among group members.

Trust is simply the level of confidence which people have that others will act as they say or are expected to act, or that what they say is reliable. Social trust refers to the general level of trust in a society - for example, how much one can trust strangers in previously unencountered institutions.

More specific definitions and explanations of the key dimensions of social capital – norms, networks and trust – are as follow.

Norms

Social norms are shared understandings, informal rules and conventions that prescribe, proscribe or modulate certain behaviors in various circumstances. Generalized social norms can include being honest and law abiding, the work ethic, respect for elders, tolerance and acceptance of diversity, and helping people in need. Social norms can also relate to specific situations such as paying bills on time, queuing at shop counters, returning another person's lost possessions, surrendering seats to the elderly on public transport, and forms of greeting. Social norms are often unwritten, although they can also be expressed or reinforced through tribal or religious beliefs and dictums, nursery rhymes, social sayings, music and drama. Under certain interpretations, social norms can also be embodied in laws and regulations themselves.

Social norms often facilitate more predictable or beneficial behavior patterns from individuals in society. Underpinning many social norms is the concept of 'reciprocity', which is strongly reflected in the ethic of 'do unto others as you would have them do unto you'. Reciprocity may be specific or general. That is, whether the favorable act will be reciprocated, and when will it be reciprocated, by and to whom - all of which may or may not be known before the person commits himself to the act.

Different societies have different social norms. Some of the norms prevalent in developed Western societies differ markedly from those in developing countries. And while some social norms operate at the broad societal level, different groups within a particular society can also have their own, often stronger, set of norms.

Compliance with social norms may be encouraged through internal psychological sanctions, such as guilt, or external sanctions such as shame and ostracism. In some groups or societies, norms are enforced through physical sanctions or threats. Informal social norms can act as complement to, or even partial substitutes for, laws and its associated enforcement processes.

Networks

A network is an interconnected group of people who usually have an attribute in common. For example, they may like a particular sport or may share the same occupation. At a more micro level, families and groups of friends will exhibit network characteristics.

An individual can belong to more than one network at once. As well as being a part of the family, an individual may be a part of separate networks of relationships based on his or her neighborhood, recreational preferences, vocation, gender, parental status, politics, religion, race and/or national grouping. Each of these groupings may come with different norms and levels of mutual obligation or expectation, and may generate different levels of 'generalized trust' towards others within or without the grouping.

The literature draws a distinction between dense and sparse networks. Dense networks have overlapping or 'multiplex' ties between group members. This interconnectivity is lacking in sparse networks, where contacts are generally weaker and more distant.

Being part of a network provides individuals with benefits such as a greater pool of social support when needed, greater access to information (and lower search costs), and a wider range of opportunities.

Networks can also play an important role in the provision of other aspects of social capital. Social norms are more likely to spread and be observed in a more connected society, and members of a highly connected community may find it easier to trust one another. As Putnam notes, an effective norm of generalized reciprocity is bolstered by dense networks of social exchange. If two would-be collaborators are members of a tightly knit community, they are likely to encounter one another in the future or to hear about one another through the grapevine. Thus they have reputations at stake that are almost surely worth more than the gains from momentary treachery. In this sense, honesty is encouraged by dense social networks.

Trust

Trust refers to the level of confidence which people have that others will act as they say or are expected to act, or that what they say is reliable. A person's level of trust in another depends largely on the person's perception of the other party's trustworthiness, although people can also 'invest' trust in others. While trust can relate to individuals, it can also relate to groups and institutions within a society, including governments. It is also possible to conceive of 'the general level of trust' within a particular society.

As alluded to earlier, while many authors treat trust as an element of social capital, others see it as an important source or outcome of social capital but caution against treating trust as social capital itself. Whatever its precise relationship to social capital, trust and trustworthiness proffer many benefits. They are the bedrock of most personal relationships, facilitating various day-to-day interactions, and play an important role in commerce.

CASE STUDIES

Four case studies were conducted by interviewing CEOs, high ranking executives and managers, on the dimensions of social capital. All four companies are categorized as SMEs and were recently selected by Industrial Bank of Korea as successful cases of best practice in which the author participated as case developer for the Hall of Fame of Entrepreneurship.

Case 1: Hankook Chinaware Co., Ltd.

Background

Established in 1943, Hankook Chinaware Co., Ltd. ("Hankook") is known as the Republic of Korea's most prestigious manufacturer of high quality ceramic tableware. With 10 manufacturing plants, including operations in Indonesia, Hankook's monthly capacity is in excess of 3 million pieces of tableware. In addition, the group also produces 1 million sheets of high quality ceramic decals a month.

Hankook produces fine bone china which is decorated with sophisticated designs. The brand has acquired a worldwide reputation for quality and reliability for several decades. The "Hankook Chinaware" brand name ranks number one in its domestic market. More than fifty years of experience in ceramic technology has enabled Hankook to develop the "super strong" porcelain which is a unique translucent vitrified porcelain body. Similarly, the quality of this porcelain has gained worldwide recognition.

The quality of Hankook's products has received the international assurance of the International Organization for Standardization (ISO) which certified that the company's production systems were in accordance with its 9001 (ISO 9001) quality standards. Hankook was also recently selected from 100,000 ISO registrations to be awarded the IQ-Net Award, selected, thus cementing the company's reputation for producing the highest quality of products.

Hankook has developed design and development capabilities for producing new models and patterns based on their knowledge of the various stages of the tableware manufacturing process. It has also developed its supply chain rather extensively, from the procurement of raw materials to the establishment of sales networks, as well as adapting to the changing demands and needs of the market – all of which make up the company's strength.

Hankook also believes that its strength lies in its people. It is a design company that is customer drive: the application and generation of new design models to produce quality products to meet the fast-changing market needs play the most important part retaining its competitive advantage in an industry where design obsolescence is high.

Dimensions of Social Capital

Trust is an important element in the strategy to win customers - especially where distribution networks are concerned. Obtaining sales in Hankook's industry is a team effort requiring a cross-functional team of employees who will map out the market development needs and implementation plans. In this respect, a good relationship, based on trust, networks and norms, among the team members and departments is crucial to achieving the expected performance. As far as networking is concerned, all interview participants acknowledged that membership in both external and internal groups have obtained information that was helpful in improving their performance and finding solutions to problems. As for norms - essential for building a conducive work environment – they are perceived by employees throughout the company as a clear vision, mission statements and objectives. To emphasize, Hankook has a strong commitment to values such as integrity, fairness, and transparent business ethics.

Case 2: InTops Corporation.

Background

InTops Corporation ("InTops") started with a small injection molding facility in 1981 - a very humble beginning given its prominence in the precision plastic injection molding industry and its sophisticated manufacture of telecommunications equipment 20 years later. Today, it is known worldwide for its precision mold making which has seen few equals. Since its establishment, InTops has grown to become a leading company in the domestic information and telecom equipment development and part manufacturing industry.

In 2002, InTops went public on the KOSDAQ, and expanded its IT Technology Research Institute to promote R&D to ensure that the company maintains its leadership in the market for part and product development. As a company with distinguished technical capacity, quality and reliability, it has acquired the American UL Standard, the ISO9002 Certification, and the TL9000 (ISO9000) Certification. It has also received the 'Gold Tower Order of Industrial Service' and 'Fifty Million Dollars Export Tower' from the Korean Ministry of Industry and Commerce.

InTops has engaged in the OEM production of electronic and communication

terminals with Samsung Electronics for more than 15 years, and the company has excellent cost and price competitiveness in terminal technology, in both domestic and overseas markets. Today InTops is considered to have the world's leading technologies in the manufacture of corded and cordless telephones, and chargers for use in telecommunication equipment.

Dimensions of Social Capital

All respondents have indicated that InTops is characterized by a high level of respect among employees and managers, and a satisfactory level of cooperation and information sharing. As for norms, the firm's commitment to values such as fairness, transparency, integrity have contributed to this end.

Case 3: Jawha Electronics Corporation

Background

In 1982, Jahwa Electronics Corporation ("Jahwa") became the first Korean company to develop the PCM (Purity Convergence Magnet) for color televisions and computer monitors, prior to which the Korean market had to depend on Japanese imports. Thus, Jahwa opened the way for domestic production to replace all Japanese-imported PCM's.

Since 1988, the Jahwa R&D Centre has established and attained numerous official endorsements. With more than 3% of the company's total revenue invested in it annually, the Centre has seen rapid growth. Jahwa's R&D Centre has continuously developed new products every year, transferring its technology to mass production, thereby replacing imported products. Therefore, Jahwa's technological and economic contributions have enhanced the advancement of national digital and electronic products.

Jahwa's major products are PCMs, PTC thermistors, bonded magnets, OA components, vibration motors, and motor expansion valves.

Dimensions of Social Capital

As for trust, the general level of trust at Jahwa can be considered very high, based on the feeling of togetherness, the level of information and cooperation provided by others, and perceived fairness. On the other hand, Jahwa could also enhance cooperation and coordination, team work, and hasten the flow of new ideas and remove communication barriers.

All respondents confirm that membership of in internal and external groups helped in obtaining information that facilitated higher performance. These networking relationships can be considered beneficial for the firm only if there is sufficient motivation from employees, instead of just pursuing bonding social capital for its own benefits. Interpersonal relations with external stakeholders are viewed as particularly important in this industry as they help in acquiring intelligence about market changes, customers and emerging competition.

Case 4: HJC Corporation

Background

Since 1971, HJC Corporation ("HJC") has been specializing in the manufacture of motorcycle helmets. The combination of extensive manufacturing experience, innovative ideas, and reasonable pricing has accounted for HJC's success in worldwide

markets. It is HJC's continual goal to provide high quality, comfortable, and reasonably-priced helmets to motorcyclists throughout the world.

As a direct result of this goal, articulated since 1992, HJC has succeeded in maintaining its status as the number one helmet brand in North America. More importantly, motorcyclists worldwide make HJC their choice as reported by the Motorcycle Industry Magazine from 1992-2004. (HJC, 2005) With a wide selection of helmets in the mid-to-high price range, consumers have an expansive choice of helmets to choose from.

In the new millennium, HJC has expanded its range to include the AC series of helmets. These models come with an advanced ventilation channeling system and unique composite shell designs, showcasing HJC's technical and innovations capabilities. The AC series have also been put to test by professional races at the Motocross, Road Race, Snowcross, and Freestyle Motocross shows. What sets the AC series apart is that it offers all the features of a high-end helmet at affordable prices - an accomplishment which high-end competitors have not been able to achieve. In addition to the AC series, HJC's latest model is the Symax modular helmet which offers extensive adjustment options, making it a favorite among tour and cruise riders.

With the addition of the helmet models mentioned above, it is clear that HJC's continual goal is to be a motorcyclist-friendly brand, offering safe, comfortable, attractive, and affordable helmets.

Dimensions of Social Capital

HJC's management emphasizes unity among employees, since the company has multinational work forces in the production and assembly lines. Networking occurs to a limited extent, with small in-groups being formed based on nationalities. This situation has two different effects on performance and growth. Firstly, due to the different levels of trust perceived, it is difficult to motivate employees to share information about technical production skills especially among lower-end groups. Secondly, a competitive and conducive working environment created based on financial rewards motivates employees to excel and outperform.

Product sales and promotion in this area is team-based effort requiring a cross-functional team of employees to meet the changing market demands. In this respect, good relationship among the members of the team and between various departments in general is crucial. Social capital, such as norms, networks and trust, is valued in HJC. These factors can enhance or deteriorate the firm's performance thus affecting transaction costs.

SUMMARY OF RESEARCH INTERVIEWS AND FINDINGS

At a general level, the more connected people are, the easier it is for them to pass information and the more people this information is likely to reach. Apparently high level of social capital allows information to be passed around easily and informally. However, strong social groupings can potentially reduce the inflow of information into a group and inhibit the uptake of innovations.

As previous research has shown, strong solidarity with in-group members may over-embed the actors in the relationship. This over-embeddedness reduces the flow of new ideas into the group, resulting in parochialism and inertia. The same research also claims that "firms are too loyal to established suppliers, and are thus slow to seek out and adopt more novel ideas." These findings highlight the different effects of 'bridging' and 'bonding' social capital.

Bridging social capital involves links across groups with disparate characteristics.

It is more likely to promote innovation than bonding social capital, which entails links between people with similar characteristics.

The effects of 'bridging' and 'bonding' social capital are widely found among abovementioned four cases. The findings are summarized as below:

1. Dimensions of social capital - norms, networks and trust - alter the terms and level of trade. Friends and family trade more and on different terms than the estranged and strangers.
2. All dimensions of social capital alter the cost of entering into contractual obligations. Enforcing the contract and liability threats reduce the incentive to enter into contractual obligations. Social capital reduces the cost of enforcing the contract and the likelihood of costly litigation. Social capital also facilitates agreement because of mutual feelings of sympathy and obligation.
3. Networks provide emotional support services including sympathy during times of emotional stress, encouragement in the face of challenges, and companionship during times of loneliness.
4. Economic and social resources tend to be more evenly distributed among a social-capital rich network but not necessarily between disconnected networks. The challenge is to make the umbrella concept of social capital cover and connect the larger group.
5. People who are well connected socially are more likely to know someone (directly) who possesses the knowledge or skills they need, thus reducing their "search costs".
6. Networks can reinforce compliance with group norms (and the lower transactions costs that accompany it) and levels of trust.
7. The high level of trust associated with social capital is critical for many transactions. Within the workplace, when there is mutual trust between employer and employee, there may be less need for monitoring and supervision by the employer. The employee has greater scope to adopt flexible work practices, such as variable hours and working from home.
8. Trust is particularly beneficial for commercial transactions where pertinent information is unevenly shared between the parties involved. Even for major commercial agreements, high levels of trust between the parties can lessen the need for detailed contracts to cover all possible interpretations and contingencies, as well as the costs of monitoring the other party to ensure their compliance.

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INTRODUCTION

Social capital is generated when individuals learn to trust one another, make credible commitments, and engage in cooperative activity (Putnam, 1995). Social capital in the form of relationships, networks, norms and trust between people enables cooperation. Where nations are concerned, social capital fosters productivity. The productivity is aggregated from the actors in a country: its people, corporations and groups. If there is high trust between workers and managers in enterprises, there would be willingness on the part of workers and managers to communicate effectively. Effective communication, in turn, determines how much workers and managers will cooperate to improve productivity. Similarly, where there is trust between political leaders at the municipal or state level and the populace, there would be greater willingness to work towards national goals, making for greater national productivity and competitiveness.

As a young nation of some forty years, Singapore's productivity and economic development has been enhanced through the social capital of its people. It is social capital, in the social resources embedded in relationships, the norms and values associated with the relationships, that has enabled the rapid and urgent changes that Singapore was able to make in its productivity journey. The social capital present in Singapore society between the various people groups, the government and the public, the social norms of striving initially to survive and the subsequent development of facilitated coordination and cooperation for mutual benefit. The social norms of mutual help that existed between members of the ethnic groups in early Singapore enabled the provision of assistance to the needy among those groups. The Chinese, Arabs and Indians in their groups provided assistance to their members and built community. The trust that is fostered between the employees in their trade unions and the employers through the tripartite employment relations under the National Wages Council is one example of how social capital has facilitated productivity. Wage negotiations are entered into annually under the auspices of the National Wages Council since 1972. The social capital established over the years enables smooth labor relations in Singapore without the incidence of labor unrest, strikes or work stoppages; all of which augers well for productivity. These are but two examples of the role played by social capital.

International interest in social capital has been over its contribution to the development of communities and economies. However, social capital in the realm of economic development contributes in the productive capacity of various groups in society. Yet there is much about the relationship between social capital and productivity that is still in the realm of enquiry. This paper seeks to explore the link between social capital and productivity in Singapore. We first examine the role of social capital and Singapore society drawing attention to the way in which it has contributed to productivity in the past, the role it is likely to play at present, and the need for further research. Productivity is a broad area, hence, we focus on the role of social capital and entrepreneurship with its associated activities. There is a need to understand how the form social capital takes in present day Singapore, how it can be developed and maintained, what forms should it take so as to enhance greater productivity for Singapore entrepreneurs and enterprises. The paper reports

on research conducted that seeks to address this gap in our knowledge. It reports on three studies conducted by the author. The first study was on social capital and SMEs in export involving a questionnaire survey. The second was on the choice of partners by SMEs who venture overseas using strategic alliances with overseas partners. The third involved semi-structured interviews to ascertain the forms of social capital in Singapore today.

SOCIAL CAPITAL AND SINGAPORE SOCIETY

In Singapore, recent interest in social capital has focused on the development of social capital in the form of the civic society. In August 1997, the PAP government led by the then Prime Minister Goh Chok Tong promulgated “Singapore 21”, a national vision to chart the path “for the year 2000 and beyond.” The aim of which is to build up five ideals that constitute the national vision; namely:

1. Every Singaporean matters.
2. Strong families: Our foundation and our future.
3. Opportunities for all.
4. The Singapore Heartbeat: Feeling passionately about Singapore.
5. Active citizenship: Making the difference.

It also espouses the values of strong family ties, social responsibility and commitment to Singapore (The Singapore Heartbeat). While these are all “social capital issues” relevant to Singapore society today, it points to the emphasis on creating or sustaining norms, building networks, strengthening trust and partnership between citizens and the Government. It also indicates that social capital can change over time and that it can be dissipated and needs to be re-built at the societal level. This observation is pertinent as the role that social capital can play vis-à-vis productivity may change over time.

In this section we explore the cultural underpinnings of the role that social capital plays in Singapore and the way it facilitated early entrepreneurship in Singapore prior to 1965. In the next section the paper reports on preliminary studies suggesting that the ways in which social capital works may have changed and that the form of social capital may have been modified; e.g. the traditional forms of social capital suggested by the cultural heritage of Singaporeans may not be as relevant now as in the days of Singapore’s early economic growth.

Culture and Social Capital in Singapore

The population of Singapore comprises 76.5% Chinese and this explains the predominance of Chinese businessmen. The Chinese in Singapore are part of the Chinese Diaspora that has seen the Chinese culture and Confucianism spread among the South-east Asian countries. As the majority of Singapore’s population is Chinese, social capital plays as a significant role in the light of the established literature of the role of Chinese business networks. In Asia, the accepted wisdom that there are Chinese informal business networks (Redding, 1995:61-69; Kao, 1993:24-34) and that in order to operate in Asia one has to be plugged into these networks (Vanhonacker, 1997:130-140). The Chinese, as with most other Asian cultures, place great importance on a person's place in social hierarchy. The family business enterprise is the central business organization in Chinese societies (Weidenbaum and Hughes, 1996; Redding, 1990; Fukuyama, 1995). In such situations reputation capital becomes important. Face is an individual’s public image and is hence contextually an important concept in Confucian societies (Chen, 1995; Begley & Tan, 2001). Apart from the Chinese, the other ethnic groups in Asia manifest the centrality of the

family, familial ties, and the extended family networks.

Another feature that links the Confucian societies in Asia is *guanxi* (Yeung & Tung, 1996:54-65). The word *guanxi* has been defined as connections and is identified as being crucial in business dealings in China (Swanz, 1995). However, *guanxi* is more than just connections it is “friendship with implications of continued exchange of favors” (Tsang 1998:65). It implies reciprocal obligations and in the context of conflicts it implies mutual accommodation keeping long-term relationship in view. The difference, between *guanxi* and the old boy’s network, is in the reciprocity required in the relationship, the long term perspective adopted by the parties, and the underlying ethical notion that a party to a *guanxi* relationship should behave uprightly (Yueng & Tung 1996:54-65).

Business relationships with those outside the family would depend on, whether there is a “connection” (*guanxi*) between the outsider and a member of the family or someone with whom the family has *guanxi*. It is through the networks that a person lower of rung of the ladder can approach another higher on the ladder for a favor or assistance. Given the Confucian tradition (Volery & Mensik, 1997:203-211; Yeung & Tung, 1996:54-65) those outside the Chinese cultures, such as a prospective foreign joint venture partner, would not even fit in the hierarchy and as such would find it difficult to become a part of the network.

Social Capital and Entrepreneurship in Early Singapore

In the early years of Singapore’s pre-independence history (before 1965), Chinese immigrants came to Singapore because there was a scarcity of employment in the coastal regions. In the period prior to 1920 there were wars and economic uncertainty in China’s coastal regions. Prior to the Second World War, there was the Sino-Japanese War in China. These constituted the push factors for their emigration. The age range of the Chinese immigrants was from 16 to 26 (Chan and Chiang, 1994), leaving their homelands to seek their fortunes, and motivated to earn a decent living (Chan and Chiang, 1994). They came with little capital and few business skills and network alliances, which are not exactly considered to be the best conditions for business start-ups. The Indians were initially brought to Singapore by the British as convict slaves, then as workers for farms, plantations and construction workers. In Singapore’s economic development they have been conspicuous as textile and piece-goods wholesalers and retailers, money-lenders, civil servants and labourers (Sandhu & Mani, 1993). They also had almost a monopoly of the laundry business in early Singapore.

The early entrepreneurs used their ethnic resources in their entrepreneurial efforts (Chan and Chiang, 1994). For example, the Chinese entrepreneurs sought their markets and customers among their clansmen and Chinese immigrants, and relied on the net-works and contacts in the Chinese community. In the early days of immigration, each group of immigrants, Chinese, Arab, Indian and the rest would form groups for mutual help. Hence, it is no surprise that the clan connections and the mutual help associations also became centres of business discussion. In addition, it was their ethnic groups whose needs they aimed to meet when they sought out opportunities for business.

The social backgrounds of the immigrants influenced the nature of their activities when they landed on Singapore’s shores. Those who were familiar with the process of doing business, and having family backgrounds in commerce, were likely to engage in the same trade or industry sectors. Other avenues of exposure to business may have also contributed to the immigrants’ involvement in commerce, such as being clerks, administrators or employees while in China. Some moved from working for others into starting businesses for themselves, as was the case of Chew Choo Keng, who later established a business which is

presently a success – Khong Guan Biscuits.

Another key feature of the early entrepreneurs in Singapore was the tendency to establish businesses that were family owned and controlled. In a few instances, the early enterprises were extensions of original businesses from the country of origin, providing the initial head starts. However, the Japanese occupation made it difficult for most businesses to be transferred to the next generation, and the war also led to the loss of wealth and capital which meant that many had to rebuild their enterprises. Despite these setbacks, family businesses have thrived, and a number of them have grown into dynamic large companies well into their second generation of successors (Tan & Fock, 2001). For example, some of them are represented in the hospitality industry as hoteliers, in the finance industry as bankers and owners of finance companies, in the real estate and construction industry as property developers, and in the pharmaceutical industry as manufacturers of Chinese medical products.

As Singapore is a port and a centre of commerce, it is not surprising that early entrepreneurs were involved in commerce. Most of them engaged in the import and export of spices, rubber and other produce. A few pioneers did engage in manufacturing, for example, Tan Kah Kee who experimented with early automation at his factories that manufactured, among other things, shoes. Others in manufacturing were involved in the processing of the products from the hinterland in the Malay Peninsula, such as, processing rubber and canning pineapples. In addition to these arenas, entrepreneurs ventured into the retail, finance, building and construction, and property development industry sectors. Examples of present day enterprises that had early beginnings include Tangs Department Store founded by a retailer C. K. Tang, and Hong Leong Finance Ltd. which is involved in the finance, hotel and property development sectors.

It can thus be seen that for these enterprises that accounted for Singapore's early productivity and economic growth, social capital played a role in shaping their businesses. Their social ties in ethnicity, networks and mutual trust have to some extent shaped early entrepreneurship in Singapore.

SOCIAL CAPITAL AND PRODUCTIVITY IN MODERN SINGAPORE

In the same manner that Putnam (1995) observed in the changes in social capital in America, social capital in Singapore has also changed over time with rapid change and modernization that came with the assumption of self government in 1959 and subsequent independence from the colonial masters in 1965. While the account of social capital and entrepreneurship in Singapore's early history suggests that the traditional networks of family ties, extended family, social networks would still be at work and contribute to entrepreneurship and productivity, there have been tumultuous changes that may have altered the norms, networks and trust. There were changes in the neighbourhoods that came about with urban renewal, housing development and the provision of low cost housing for the masses. The government became a major player in the economic arena. Meritocracy was introduced as the basis for advancement in society and the civil service. Corruption was arrested.

These changes in society suggest changes in social capital. Two exploratory studies conducted by the author suggest that further research is needed to examine the role of social capital and productivity in Singapore. The findings of the two studies are described in the succeeding sections. The first study concerned the role of social capital in facilitating exports by local enterprises. The second examined the role of social capital in international strategic alliances in the form of joint ventures. The third study was a preliminary

examination on the social capital in Singapore.

Social Capital and Export Activities of Singapore SMEs

In the first study, the author examined the importance of networks to entrepreneurs and enterprises in Singapore to their internationalization efforts in export sales. It involved a questionnaire survey of SMEs in export. The study explored two research propositions suggested by the literature on Chinese business networks that family, social and informal networks involving *guanxi* would feature greatly and prove to be useful to the SMEs. In contrast, industry and professional networks would prove to be less useful. At the same time, the literature suggests that these networks would be used by entrepreneurs to leverage on the resources of others for the purposes of export activities. Hence, the study examined two propositions; firstly, that local enterprises in Singapore would find extended family, social and informal networks more useful than industry and professional networks. Secondly, it was expected that local enterprises would use family, social and informal networks in obtaining the assistance they need for their export activities rather than other networks. For the purposes of the study, small and medium sized enterprises were chosen as the sample as they are more likely to rely on social capital as a key resource as compared to larger business concerns.

As there is no directory of SMEs engaged in exports, we used a listing of SMEs compiled by the government agency responsible for SMEs. The research instrument was sent to a sample of 354 SMEs. SMEs included in the sample followed the definition used by the government agency for the purposes of statistics and assistance; namely, an enterprise with at least 30 percent local equity and less than S\$15million fixed asset investment; in the case of enterprises in services they must no more than fifty employees. A total of 66 completed and usable questionnaires were received. The effective response rate is thus 18.64 per cent, which is a reasonable response rate in Singapore, where there has traditionally been a low response rate to questionnaire surveys.

The survey questionnaires had two sections: the first section asked about the SMEs and their export sales and markets; questions in the second section asked about the usefulness of the networks to their export businesses and how the respective networks were useful. A majority of the SMEs who participated in the study (40.3 percent) are in retail or wholesale trade, followed by the manufacturing (26.87 percent).

Usefulness of Networks to Exports

The SMEs rated the usefulness of the networks to the export business on a scale of 1 to 5 where 1 means “very useful” and 5 means “least useful”. The findings are shown in Table 1 below. Contrary to expectations, the family networks (mean = 3.85) are rated the lowest in usefulness to export business (proposition 1). Instead, industry (mean = 2.09) and professional networks (mean = 2.54) were the two networks that proved to be more useful to the SMEs. When the SMEs were split into two groups, one with more than 51 percent of their total sales in exports and the other group with exports representing 50 percent or less, statistical analysis of the differences in the means scores for the various networks found that the differences were not statistically significant. This analysis was conducted to check if there might be some difference between the SMEs that were more highly export oriented than those who had less export sales.

Role of the Networks

The role of the networks was another aspect the questionnaire explored with the SMEs. The SMEs were requested to indicate which of the networks were used for various

Table 1: Usefulness of Networks to SMEs

Type of networks	N	Mean	Standard Deviation
Extended Family	66	3.85	1.42
Social	66	3.46	1.41
Industry	66	2.09	1.33
Professional	65	2.54	1.55
Informal	64	3.17	1.48

purposes. The findings based on the number of times each of the networks was selected by the SMEs are shown in Table 2. As the SMEs were permitted to indicate more than one network for each purpose, the frequencies may exceed the sample size. The frequencies support the earlier finding on the usefulness of the networks. The frequencies shown in Table 2 indicate that the SMEs who found the networks useful indicated that industry and professional networks were of greater use for the purposes indicated. The second proposition is not supported.

Table 2: Role of the Networks

Frequency Role	Extended Family	Social	Industry	Professional Networks/ associations	Others	None Applicable
Help in raising export finance	9	7	19	7	3	27
Help in meeting production targets	2	7	29	14	0	25
Help in sharing costs in marketing strategy	1	5	27	18	1	27
Help in obtaining special knowledge of export market	5	13	36	27	2	12
Share customer base	5	14	36	9	3	17
Help overcome barriers (legal, political, etc.) to market entry	0	9	25	28	1	18

The findings are most interesting in that the two propositions based on the accepted notion that Chinese business networks and *guanxi* are the bases of doing business in Asia were not supported. They give rise to the need to consider possible reasons why extended family, social and informal networks did not feature as being as useful. One possible reason lies in access to the Chinese business networks that the literature refers. The literature while referring to the Chinese business networks usually refers to established businesses. The networks referred to are long established with linkages to other established businesses and opportunities. Our focus in this study has been on SMEs. They may not be able to access the established Chinese business networks. More pertinently, their extended family networks would not be useful as they are not as established. This distinction is important as there has been little attempt to distinguish between the networks of established larger firms and the smaller enterprises.

The usefulness of industry networks and professional networks/associations is also telling, as it cannot be simply assumed that all networks are pertinent for all activities and the full spectrum of functions. The study shows that different networks are more pertinent than others for different activities. It appears that the SMEs found that extended family, social and informal networks less useful than professional networks and associations. The professional networks and associations would include chambers of commerce, trade associations, and SME interest groups. It appears that these networks offer greater assistance to export and is plausible as they would be individuals in these networks who would either expertise or prior experience in the export markets. The experiences, information and contacts that these networks offer may be more directly relevant than those offered by the other less useful networks. It points to new forms of social capital have become relevant to SMEs and local entrepreneurs. Further, noting the earlier observation about networks that are available to established businesses and newer enterprises, it appears that social capital would differ between enterprises by age or length of years in business.

The findings in this study in no way detract from the relevance of prior studies on *guanxi* and relationship. It points out that the usefulness of social capital may vary across functions or roles: relationships, extended family, and social and informal networks may be more pertinent to other functions and roles and not for export activities. One example of this is the identification of suitable business partners. Another possible instance could be the use of these networks for the assessment of trustworthiness and creditworthiness. This preliminary study shows that there is a need for a better understanding of social capital in Singapore as it relates to business. One cannot assume that the social capital represented by the networks associated with Chinese businesses - extended family, social and informal networks – are the keys to productivity. Granted that the study has limitations in that it is not a representative study and its small sample size, it does provide the impetus for further research on social capital. There is need for a better understanding of social capital available to SMEs.

Reliance on Networks in the Choice of International Strategic Partners

The second preliminary study involved the use of social capital in the selection of partners in international strategic alliances. The research questions on social capital were:

- How did the SMEs select their partners?
- Whether they employed networks that the literature (Hamilton, 1996; Redding, 1993) suggested was the main way in which business is done in Asia;

Here the second study involved interviews of SMEs.

International growth and foreign direct investments are no longer the sole purview of the multinational corporations from developed countries. Small SMEs from the developing countries are engaging in international strategic alliances. Interviews were conducted with six firms whose identifies are disguised. The six firms, whose identities have been cloaked and the countries in which they have strategic alliances, are shown in Table 3 below.

Table 3: Respondent Firms

Respondent	Location(s)
Pneumatic	China, Australia, New Zealand, Thailand (failed)
All Metal	China (failed), Hong Kong, Brunei, Indonesia
Logistics	China
Manufacturing	China, Thailand, Germany
Leisure	Indonesia, Malaysia
Stationery	Indonesia, Malaysia (both successful & ended)

All the SME owners are Chinese. Their overseas partners are Asian except for two interviewees: Manufacturing and its German joint venture, and Stationery and its joint ventures with a German manufacturer. Pneumatic's overseas alliances in Australia and New Zealand were with a Chinese partner who had immigrated to Australia from Singapore.

Of the interviewees, there are two instances where the alliances failed (Pneumatic and All Metal) and one instance where the interviewee parted company amicably with his partner (Stationery). All Metal's joint venture failed because of the difficulty with control over the venture because of the distance between Singapore and Shandong and the lack of progress after three years. Pneumatic's explanation for the failure of its Thailand joint venture was a lack of understanding of the Thai culture. Stationery withdrew from its two joint ventures with its German partner amicably after many years of success because of Stationery's then impending joint venture with a competitor from Sweden. The findings pertinent to our social capital research are mentioned below.

Partner Selection & Network

One key aspect of the study revolved around how the SMEs identified and selected their respective alliance partners. In most of the cases, the partner identification and selection were based on prior relationships: their social capital. Four companies interviewed reported having had prior relationships with their current foreign partners. These prior relationships took the form of either personal or business relationships. Logistics and Leisure stated that they were friends with their partners, way before they decided to pool their resources in China and Malaysia. Stationery was the agent for their partners, with the initial contact established through word of mouth. The business relationship in the case of one of its alliances was spanned twenty-seven years. Manufacturing reported that their partner was initially their supplier. Pneumatic's partner in Australia was a person in whom there was trust gained through the experience and rapport established over time when the partner started working for them a few years previously. In all the cases except for Stationery, the period of prior relationship was between three to five years. Logistics said: "Through making friends so many years can roughly study his character. I have known him for three to five years before we started the joint venture. That is why I can trust him."

Of the remaining two SMEs, All Metal relied upon the introduction of a person who wrote to All Metal after having noticed All Metal in a newspaper account. Manufacturing's partner in Germany was by way of an introduction of a German supplier with whom they had business dealings.

Social Processes

Whilst the SMEs did not refer to their approach to locating suitable partners in terms of strategy, they did refer to activities and social processes. The SMEs were asked to provide details on the activities that they engaged in with the prospective alliance partners prior to and during the alliance formation negotiations. The importance of social processes extended across all the various countries where the SMEs had foreign partners.

Pneumatic, Logistics and All Metal voiced the same sentiments that to build up a closer relationship with their Chinese partners, it was important to carry out social activities like having dinners, going to lounges and presenting gifts. All Metal revealed that they brought with them, cigarettes and wine as gifts whenever they visited China and occasionally even bought \$100-\$200 worth of jewelry for their partners' sons and grandsons so as to develop 'guanxi' (relationships). Pneumatic also felt that engaging in these social activities was necessary to develop closer ties. The interviewee often instructed his managers and subordinates "if you are a staunch Christian and you don't want to betray your values, you are not suitable for business there."

Both Leisure and All Metal reported that engaging in social activities like having dinners and sending gifts are a part and parcel of doing business in Indonesia. Hosting government officials to a fine dining and presenting them with gifts such as a full set of golf worth \$17,000 were normal social activities Leisure reported. The Leisure representative proffered as the following explanation that in order to develop closer business ties, "this relationship has to start with friendship, then it will be proceeded by giving little gifts here and there, followed by an unspoken kind of 'under table' process." Leisure also engaged in meeting and social events including staying over at their partners' place. The interviewee said they learned to trust their partners through a lot of communication.

Pneumatic noted that in Malaysia the social processes were not very similar to China. They were similar in context but not in the extent. According to Leisure, the usual activities involved dinners and some gifts as a courtesy. In their dealings in Australia and New Zealand, Pneumatic discovered that social meetings are few in Australia compared to China. In the New Zealand venture, the only social activity is to bring each other home for a simple dinner. He thinks that in the Western context, "you have dinner because you need to eat rather than because you need to socialize." Stationery engaged in with its German partner included food and golf. For the managers and the lower level employees, they might indulge in karaoke, and some drinking and dancing in the nightclubs.

Implications

The findings are insightful as most of the SMEs reported employing a strategy involving their contacts with whom they had prior relationships. Contrary to the literature, all but one of the cases made reference to the word "networks". The exception was Pneumatic where the word "networks" only appeared in the context of the joint venture in Japan. The use of networks in Japan is consistent with the developed status and culture of that country. The joint venture in Japan is to be contrasted with the other regional alliances reported on in this study between Singapore (a more developed developing nation) and the other countries in Asia, who are in a continuum of development equal to (e.g. Republic of China) and a little behind Singapore (e.g. Thailand and Indonesia). By networks, the

managing director of Pneumatic was referring to business networks that are more akin to the Western-Style business networks rather than the Asian business networks that have been the subject of some discussion. The latter group of networks is family and kinship networks associated with the Chinese (Tong, 1996; Redding 1993). It is apparent that with growing SMEs, who unlike the established family firms that exist in Asia do not have the kinship networks that the literature refer to as the bamboo network (Weidenbaum & Hughes, 1996). The interviews highlighted the role of social processes in overcoming the cultural and organizational differences that confront both parties (the SMEs and their respective overseas partners). The social relations and processes appear to have a function in reducing the distrust that would exist in the situation when two enterprises from different cultures, markets and environments seek to cooperate.

The findings are interesting in that the mechanism picked by the SMEs in their choice of overseas partners. They did not appear to have a systematic search for overseas partners but looked for partners based on prior social relations: individuals with whom they have business and or social relationships. Their strategy appears to be to examine the potential location and be on the lookout for someone they knew or were introduced to. This aspect of choosing individuals with whom they have familiarity fits in with the use of networks. However, it is not a case of formalized networks that these SMEs relied upon but the informal networks of contacts.

The strategy worked in providing a basis from which to formulate the cooperation. In the case of Stationery, for example, the Singapore entrepreneur had known his German partner for some twenty-seven years prior to their alliance in Indonesia and Malaysia. This relationship contributed to both parties knowing each other very well in terms of personality and business. The same could be said for Leisure, who said that the partnership was based on the trust that existed in the friendship and sincerity. The sincerity towards their partner is expressed through communication and by delivering as promised.

Whilst most of the SMEs employed a strategy involving the identification of individuals with whom they have prior dealings and about whom they have some awareness about, there was an alternative approach employed by Pneumatic with respect to its partner responsible for Australia and New Zealand. As an alternative to personal knowledge and familiarity, Pneumatic relied upon a trusted reference person, a common friend. Pneumatic attributed his trust of his Australian and New Zealand partner because his friend trusted this partner. Hence, he felt that "trust is like something transferable." The same could be said of All Metal who relied on the new found friend. However, in both All Metal and Pneumatic, the SMEs in question did take steps to find out more about the firms they were introduced to and did enter into the social activities we discuss in the next section.

Entrepreneurs and Social Capital Today

Intrigued by the two prior studies, the author embarked on an examination of the social capital of typical entrepreneurs in Singapore, interviewing three entrepreneurs who are owner-managers of SMEs between the ages 34 to 56 with all interviewees being Chinese. Their education was post-secondary with one of them having attained a university education. One entrepreneur is in the wellness industry [W] while the other two SMEs are from the food and beverage industry [FB1 & FB2]. The objective of the interviews is to discern the networks they are involved in and their assessment of trust in Singaporean society employing a social capital research questionnaire that had been widely used internationally.

What the interviews revealed was most interesting as the social networks differed between the three. While none of them has company members in clubs, W was a member of a trade association while FB1 was a member of numerous associations. FB2, on the contrary,

did not join any associations, apparently seeing no value in formal networks. Taking informal networks into account W and FB2 had a total of 2 to 3 networks each. FB1 indicated involvement in more than 12 networks. He spent the most with contributions in money ranging from zero to \$300 and \$3,000 a month [FB1] for participation in the networks. W and FB2 were infrequent in their participation in their networks: very infrequent [once in six months] in the case of FB2 and fairly frequent [once in two months] in W's case. FB1's participation is very frequent [10 days a month]. FB1 appears to be more highly involved as he is involved in the decision-making of more than half the networks. The other two are merely participants.

In the neighbourhoods, there appears to be a general sense that people were getting along and somewhat close to very close. However, W was less favourable in his assessment of the trust in society as he felt that there was a need to exercise care and that there was a likelihood that most people would try to take advantage of others.

All three entrepreneurs reported engaging in recreational activities an average of four times a month. Their recreational activities involved family or friends [W] and family or friends and friends from the same caste...ethnic group [FB2]. FB1's group for recreational activities was from the wushu federation but this could also be classified as friends from the same ethnic group. Unlike other societies where card games were a normal past time, none of the entrepreneurs engage in these.

The entrepreneurs indicated that the visits to their homes were confined to families and friends. FB1 limited it to relatives[twice a month]. FB2 extended it to include friends from the same group[once a month]. W had such visits four times a month. However, their other social interactions involved meals outside the home; all three entrepreneurs report that they do so almost every day with all the different groups of people.

The entrepreneurs were also asked about specific instances of trust. Apart from FB1, the other two entrepreneurs would ask their neighbours to baby sit. However, they are not likely to call on their neighbours when they are sick. Hence, the social capital appears to be limited in its resource carrying capacity in that you would impose or rely on neighbours for less involved activities. Apart from W who had noted that he had low trust in other tribe/caste/race/region or ethnic groups and politicians, he and the other SMEs had high trust with all the other groups.

Three interviews do not reveal much apart from confirming the need for further research. The reliance or involvement in networks does not appear to be critical in all cases for their business. FB1 is an interesting contradiction from the other two interviewees. Their non-business social activities outside of networks appears to be limited to meals. This study needs to be augmented with a larger scale examination of the link between social capital and productivity. Having merely asked the entrepreneurs about their activities that would lead to the development of social capital, the level of trust in society and norms alone does not translate to productivity gains; thence, the limitation of the study.

CONCLUSION

In Singapore there has been little research on social capital and productivity. In this paper, the role that social capital has played in the initial economic development preliminary studies show that the research would be relevant in Singapore as the sources of social capital conceived as assets may not be those traditionally identified in the literature. Yet in the current context, the shape of social capital appears to have changed. Ethnicity and traditional networks appear to play a different role from what has been previously documented in the literature. The usefulness of the traditional networks appears to have

waned in contrast to other formal networks. The change has implications for productivity and on networking activities that entrepreneurs should engage in. There would appear to be a need to foster new networks. In the light of this, the formation of an all enterprise business federation which Singapore has initiated, would be valid. However, there is a need for this federation to provide the linkages and relationships that a hub should. Further research is needed to discover the nature of relationships or activities at the networks, which were found to be relevant such as trade associations.

Where entrepreneurs are venturing overseas, it has been informal networks in the case of strategic alliances that have been useful. Where SMEs are seeking export markets, it is professional and trade associations that appear to furnish the points of access to information, finance and resources. Singapore SMEs need to venture into overseas markets in the light of Singapore's small domestic market. Greater productivity would accrue if they succeed in overseas operations. The implications for productivity from the second piece of research suggest that the entrepreneurs ought to have a wide array of contacts as the pool of potential overseas partners would expand. Further research is, however, needed because it is not just the informal networks alone that provide the overseas partners. There is a need to identify what role the networks played, what did they facilitate in the way of distrust reduction, information gathering and assurance. It would be useful to identify the sources of social capital in the types of networks or relationships, their relative usefulness, and the development of such capital. It would also be extremely beneficial to discover how social capital contributes to productivity in other areas apart from entrepreneurship which this paper has limited itself to.

The research reported here merely scrapes the surface as there is much more to discover. The research is critical as there is a need for many Asian SMEs, Singapore's included, to transform themselves. The management literature suggests that they should adopt the western management practices and norms. The reality of social capital in Asia suggests otherwise. The western management practices suggest certain measures as the means to motivate, retain and manage employees, the social capital at work in Asia suggests that these practices may need to be modified. Singapore SMEs wanted to grow and transform themselves into multinational enterprises, need input on how best to address the transformation process. It is hoped that the next phase of the research would offer some assistance to them in these areas.

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SURVEY OF SINGAPORE SMES ENGAGED IN EXPORT

PART 1: BUSINESS PROFILE

1. Name of Business: *(optional)*

2. Location: *(city & country)*

3. Which industry category is the business in? *(Tick only one box)*

Manufacturing ☐

Recreational, personal & other services ☐

Retail/wholesale trade ☐

Community services ☐

Finance, property and business services ☐

Other *(describe)* ☐

<p>4. What is the <i>ownership</i> structure of the business? (Please tick one box only)</p> <p><input type="checkbox"/> Sole proprietor</p> <p><input type="checkbox"/> Partnership</p> <p><input type="checkbox"/> Private limited company</p> <p><input type="checkbox"/> Publicly listed company</p> <p><input type="checkbox"/> Other (please specify)</p> <p>_____</p>	<p>5. Do you consider the firm a family business?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
<p>6. How long has the business been in operation?</p> <p><input type="checkbox"/> less than 2 years</p> <p><input type="checkbox"/> 2–5 years</p> <p><input type="checkbox"/> 6–10 years</p> <p><input type="checkbox"/> more than 10 years</p>	<p>7. No. of <i>people employed</i> by the business:</p> <p><input type="checkbox"/> fewer than 20</p> <p><input type="checkbox"/> 21–50</p> <p><input type="checkbox"/> 51–100</p> <p><input type="checkbox"/> more than 100</p> <p><input type="checkbox"/> less that 2 years</p>
<p>8. <i>Turnover</i> of the business last financial year:</p> <p><input type="checkbox"/> less than US\$1 million</p> <p><input type="checkbox"/> US\$1–5 million</p> <p><input type="checkbox"/> US\$5–10 million</p> <p><input type="checkbox"/> more than US\$10 million</p>	<p>9. <i>Percentage of export sales</i> (average over the last 3 financial years):</p> <p><input type="checkbox"/> less than 10%</p> <p><input type="checkbox"/> 10 – 25%</p> <p><input type="checkbox"/> 26 – 50%</p> <p><input type="checkbox"/> 50 – 75%</p> <p><input type="checkbox"/> more than 75%</p>
<p>10. What is the firm's <i>major export region</i>: (Tick one box only)</p> <p><input type="checkbox"/> North America</p>	<p>11. <i>Percentage of export sales to the firm's major export region</i> (average over the last 3 financial years):</p> <p><input type="checkbox"/> less than 10%</p>

<input type="checkbox"/> South America <input type="checkbox"/> Europe <input type="checkbox"/> Africa <input type="checkbox"/> North-east Asia (Japan / Republic of Korea / Republic of China) <input type="checkbox"/> South-east Asia <input type="checkbox"/> China <input type="checkbox"/> Australia / New Zealand / Oceania	<input type="checkbox"/> 10 – 25% <input type="checkbox"/> 26 – 50% <input type="checkbox"/> 50 – 75% <input type="checkbox"/> more than 75%
12. Profit as a percentage of sales, (average over the last 3 financial years): <input type="checkbox"/> 0% – 5% <input type="checkbox"/> 6% – 10% <input type="checkbox"/> 11% – 15% <input type="checkbox"/> more than 15%	

PART 2: BUSINESS RELATIONSHIPS

This part of the questionnaire is about the relationships you have developed in the business with groups in society from which you have derived assistance, knowledge or understanding in your export venture(s). The relationship may be formal or informal, or it may be of assistance to you at various stages of production, marketing or distribution. In your response, please note that while these groups may overlap with each other, the focus is on the main purpose of the relationship i.e.

- *Extended family networks* (parents, brothers and sisters, uncles and aunts, cousins);
- *Social networks* (e.g. sporting clubs and social groups);
- *Industry networks* (manufacturers, wholesale, finance);
- *Professional Networks/Associations* (e.g. accountants, engineers);
- *Informal networks* (random meeting, people one is normally unconnected with)
- *Other* (any other networks not included above)

1. Are any of the following networks useful for your export business?

(Circle the number that most closely corresponds to the level of usefulness.)

	Very Useful		Moderately Useful		Least Useful
Extended Family Networks	1	2	3	4	5
Social Networks	1	2	3	4	5
Industry Networks	1	2	3	4	5
Professional Networks/Associations ...	1	2	3	4	5
Informal Networks	1	2	3	4	5

2. In what ways are these networks useful? (Tick any of the boxes that are relevant to your business)

	<i>Family Networks</i>	<i>Other Social Networks</i>	<i>Industry Networks</i>	<i>Professional Networks</i>	<i>Other</i>
Help in raising capital for export venture					
Help in meeting production targets					
Help in sharing costs in marketing strategy					
Help in obtaining special knowledge of export market					
Share customer base					
Help overcome barriers (legal, political, etc.) to market entry					
• Other (please specify): _____					

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