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Facets of Organizational Social Capital: How Network Renovation is Key to Favorable Strategic Space

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FACETS OF ORGANIZATIONAL SOCIAL CAPITAL: HOW NETWORK RENOVATION IS KEY TO FAVORABLE STRATEGIC SPACE

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ABSTRACT

This paper studies the effect of organizational social capital on structural change in the context of socio-economic networks. In a networked economic system, organizational social capital is the outcome of a dynamic process; the effect of this process on firm performance is contingent on the management of structural change in the network. To further this argument, the paper proposes a process model and explains how variation in network renovation leads firms to dissimilar posterior positions with different performance implications even with congruous antecedent social capital. Subsequently, the paper discusses four such posterior positions; these positions are termed as strategic spaces. Strategic spaces are primarily organizational and network conditions which constrain or enhance the scope of structural position as well as relational content of a firm in a socio-economic network. These strategic spaces are outcome of the fit between the expectations of network members (termed as 'structural expectations') and the firm's capability. While explaining this fit, this paper synthesizes the structural perspective of social capital with the individualist perspective. In concluding, the paper discusses the performance implications of such strategic spaces.

Key Words: Organizational Social Capital, Structural Change, Strategic Space, Network Renovation.

Social capital literature has immensely contributed to organization and management science by enhancing our understanding of firm performance in a socio-economic network, both at organizational and inter-organizational level (for an overview of such literature, see Adler and Kwon, 2002). Different perspectives on social capital such as, structural view – which emphasizes that social capital available to a firm is dependant on its external links and structural position in the larger network such as industry (c.f. Adler and Kwon, 2002; Coleman,1990) and individualist view (also termed as bonding view) – which opines that social capital is sourced from internal ties, structure and capabilities of a collective such as firm (c.f. Adler and Kwon, 2002; Kilduff and Tsai, 2003) have been analyzed for their positive as well as negative effect on firm performance. However, at organizational and inter-organizational level very little has been studied on the management of social capital in a changing network structure and the process by which it affects firm performance. Very few papers have thrown light on the process of structural change in a network, intricacies in managing such a change and it's effect on creation of social capital (For example Maurer and Ebers, 2006 studies dynamics of social capital on start-ups). As a result, we still grapple with questions such as: Under what circumstances social capital is enhanced or gets depleted in a changing network structure? What is the role of social capital in management of inter-firm and intra-firm networks? How interaction between different forms of social capital affects network dynamics and firm performance? In a networked economic structure such as industry, does increase in social capital is automatically translated into competitive advantage? Answer to questions such as these are important to understand the effect of social capital on firm performance in a dynamic socio-economic network.

To address such concerns, this paper explores the effect of social capital in the context of changing network. The paper presents a three-stage process model to show how managing structural change in a socio-economic network affects firm performance. Prior to explaining the mentioned process, this paper integrates structural view of social capital with individualist view. Considering the firm as a single collective unit, it opines that the individualist form of social capital translates into capability as it is the resultant of all internal sources including knowledge, human resource and their relations within (Nahapiet and Ghoshal, 1998). Consequently the paper argues that, in case of a network renovation – i.e. strategic change in inter firm networks or conscious change of relation between a firm and its stakeholders - the resultant social capital for an organization termed as organizational social capital is affected by the interaction between firm capability and the expectation of other members in the renewed network, termed as structural expectations. Putting it differently, it is argued that organizational social capital in a socio-economic structure is the resultant intangible asset sourced from the match between internal capability and structural expectation. This paper shows how variation in network management leads firms to dissimilar posterior positions with different performance implication even with congruous antecedent social capital. Subsequently the paper discusses four such posterior situations termed as strategic spaces. These strategic spaces are contingent on the fit between structural expectation and capability variation and directly co-relate with the performance of firm in long term.

The subsequent sections of this paper are designed as follows. First it will have a quick look back on the genesis of social capital and define organizational social capital in the context of a socio-economic network. This definition will synthesize both structural and individualist perspective of social capital. After a very brief discussion on how meeting structural expectation leads to enhancement of social capital, the three-stage process model which describes process of structural change will be presented. This model will explain how variation in managing social capital may lead the firm to four different strategic spaces in a changing environment. This section will also deal with performance implication of such strategic spaces. The last section will briefly discuss managerial and research implication of the model followed by conclusion.

SOCIAL CAPITAL IN ORGANIZATIONAL CONTEXT: A BRIEF LOOK BACK

The concept of social capital is not new [1] and dates back to several centuries. However, the modern literature on social capital originated with the work of Hobbes (1651), who in his

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[1] Fables in *Panchatantra,*(300 BC) describe the virtue of having good friends, good social circle which helps an individual in creating political, economic and reputational resources and facilitates socio-economic transactions. *Arthashastra* (200 BC*)* prominently discusses the social capital of State and opines that it affects and is affected by the conduct and capability of the ruler and its citizens which not only facilitates well being of the state but also enhances performance of institutions in the state.

book *Leviathan* established distinction between individual's social and political resources and argued that the individual's standard of living depends on the resources at his disposal. Weber (1922) furthered this argument and opined that individual's standard of living can improve with three types of resources: economic, political, and symbolic, where the latter two resources are subject to the quantity and quality of social interaction. The whole perspective of social capital is built on the idea that an actor and its activities including economic activities can't be proscribed of the context and the social structure in which it operates. The action of the actor and it's consequences, affect and is affected by this social structure which creates an intangible asset at disposal of the actor which can be mobilized to facilitate socio-economic gain. This intangible asset is termed as social capital in management, sociology, and economics literature. This conceptualization of social capital as an value enhancing system resource and a tradable asset stock (Black and Boal, 1994) has given rise to study it's affect on performance and success at individual, organizational and inter-organizational level.

In the context of business firms, the positive effect of social capital on resource allocation, innovation and learning, it's effect on availability of human resource and attrition, as a facilitating function to strengthen relation with members of value chain has been studied (for an overview of the breadth of social capital literature in the context of business organization, see the review paper by Adler and Kwon, 2002). Social capital has also been used to explain longevity and economic performance of firms including prospect of start-ups (Ingram and Baum, 1997; Maurer and Ebers 2006), relation between investment in social capital and economic growth of firm (Westlund and Nilsson,2005; Wu and Leung, 2005); effect on pre-investment behavior (Sorheim, 2003), to name a few. Most of the researchers mentioned above, has explored the effect of social capital on variables those have direct impact on firm performance and profitability. Though description of details of these results is out of scope of this paper, the literature in social capital fairly establishes that there is a positive relationship between increase in social capital and firm performance (Adler and Kwon, 2002).

In organizational context, conception of social capital is viewed from two main perspectives. The structural perspective views social capital 'as the resource located in the external linkage of a focal factor' (ibid). Hence this view of social capital attributes more importance to the structure in which the organization operates and takes into account the number of ties, structure, and content of relation as the base of analysis. It considers organization as one single unit like an individual. It also considers impact of social norms, rules and obligations and treats individual action and consequences from a holistic view (Kilduff & Tsai, 2003). The other view called individualist view (also named as collective view and bonding view) focus 'on collective actor's internal characteristics' (Adler and Kwon, 2002). According to this view social capital of a collectivity such as organization is not so much in its external ties but originates from its internal structure and cohesiveness (ibid).

However, the basic feature of social capital analysis is the tie between two single units and their reciprocal relation. From this standpoint social capital involves expectation and reciprocal obligation between two units (Degenne and Forse, 1999: 116).Thus it is not sufficient to know how many other members one is attached to but it is also important to judge whether the individual is capable enough to meet the expectation of it's network members. It is equally important to know if the member is capable enough to manage reciprocal action continuously and satisfactorily. In such a scenario, for an individual, its traits such as individual capability, efficiency, and personality definitely affect the quantity and quality of relations the individual establishes within its network. These components also affect creation and leveraging of social capital at its disposal. However, in case of organization, meeting reciprocal obligation requires the resources of organization, their efficient and effective utilization, internal human resource and related dynamics (such as their interaction, cohesiveness) and support of internal structure of the collective. In organization context the collection of these mentioned attributes can be conceived as the capability of organization. This statement is in agreement with Nahapiet and Ghoshal's (1998) assertion that organization as a collective is a cohesive entity and its capability is the net resultant of the internal resources available and the interaction among them.

Defining Organizational Social Capital in a Socio-Economic Network

Social capital is defined differently by different authors and the definition varies according to the importance given to structural aspect, relational aspect or content aspect of the actor's network. Moreover, defining social capital for organizations in a socio-economic network such as industry has its own peculiarity because of two reasons. (1) As structural view suggests, organizations considered as a single unit can generate social capital by the virtue of their structural position in the network and (2) As individualist view suggests, an organization is a network by itself consisting individuals and groups, and hence the organization as a separate entity also enjoys social capital from its internal network. Therefore, prior to define organizational social capital we need to have a look back into the existing definitions and the context in which they are defined.

Adler and Kwon (2002) while synthesizing social capital theory list eighteen definitions of social capital, both from structural as well as individualist perspective. However, they favor the definition those are neutral to both the perspectives and opine that the two views are not mutually exclusive because more often than not, the definition varies according to unit of analysis. This suggestion seems very appropriate in the context of organization as it can be observed that behavior of actors and their relationship inside organization affects social capital of the organization as a whole which in turn affects the network structure in which it operates (Maurer and Ebers, 2006). Thus, in organization context definition of social capital should acknowledge both the structural contribution and individual contribution to the resultant social capital of the organization. The definition of social capital also varies according to cause-effect relationship between network structure and social capital. For example Bourdieu (1980) considers network as cause and social capital as effect and defines social capital as 'The aggregate of the actual and potential resources which are linked to possession of durable network of more or less institutionalized relationship of mutual acquaintance and relation'. Contrary to this view some researchers have considered social capital as a facilitating force for network formation. For example, Walker, Kogut & Shan, (1997) opines, 'Social capital influences how the network is formed......social capital is thus an available additional asset for managing inter-organizational relationships since it constrains a firm's partner to be more co-operative'. Therefore, in the context of organization, assuming that this cause-effect relationship works as loop is a safer proposition to make because the organization continuously interacts with other members of its network for its existence.

To define social capital for an organization in a changing network (read as environment), also requires addressing another related concern. As mentioned in previous sections, social capital is not a stagnant and unchangeable resource available to an organization. Neither the capability of organization nor the network structure in which the firm is embedded is stagnant. Capability changes as the organization gains experience, acquire new assets, develops new know-how or processes. Similarly the network structure changes with change in industry structure, with change in macro-economic environment and with change in capability of incumbent or entrant firms in the economic system. For example Stuart (1998) notes that enhanced technical capability triggers propensity to collaborate. Singh and Mitchell (2004) notes that varied performance triggers collaboration creating new network structure out of the old one. With the change in capability the old network structure goes through transition where new relations develop and old relations change or die. This process of change calls for network renovation which includes combination of activities such as changing partners, redefining the role of partner and self, change in expectation from relations, change in reciprocal demand and most importantly fulfilling the renewed expectation of partners. For example, a firm which continuously performs well attracts new partners and has an expectation that both of them will perform better in coming years. Persisting better performance and fulfillment of raised expectation needs better capability from firms such as better resource development, efficient resource utilization, and better co-ordination. This process works as a cycle where better performance creates increased expectation from the network members which in-turn forces enhancement of capability, for next round of better performance and the network renovation goes on. The same process also holds good for decreasing capability and decreasing expectation leading to depletion in social capital. Thus in organizational context, social capital is affected by the match of capability and structural expectation. A continuous match ensures increase in social capital where as a mismatch may lead to loss of social capital.

Adhering to the suggestions of previous researchers as well as to the arguments made in preceding paragraphs and considering an organization as a separate entity having its own existence this paper defines organizational social capital, as, "the aggregate of intangible assets and resources available at the disposal of firm for facilitating socio-economic gain in its interaction with internal and external constituents of network. It is the net intangible asset formed by the interaction of internal capability and structural expectation."

The above definition synthesizes both structural and individualist perspective and acknowledges mutual reciprocity of both. The definition adheres to the structural, relational, and cognitive dimensions of social capital (Nahpiet and Ghoshal, 1998) and also considers it as a tradable asset stock (Black and Boal, 1994).It assumes that meeting the expectation of stakeholders raises social capital of an organization and this needs a fit between stakeholder's expectation and organization's capability. The mismatch between them; i.e. if organization can't meet rational expectation of the stakeholders; results in erosion of social capital. In the definition, internal capability is subjective and is based on Nahapiet and Ghoshal's (1998) cognitive and relational aspects .It is the net result of interaction between organization resources, norms, behavior, shared values which builds organization's capability over time.

The following section describes how internal and external constituents of network, mentioned in the definition, and their management leads to different scenarios with varying amount of social capital at the disposal of firm.

MANAGING STRUCTURAL CHANGE: PERFORMANCE IMPLICATIONS OF ORGANIZATIONAL SOCIAL CAPITAL

Researches have opined that in a changing environment, organization's success and failure is dependant on managing four broad processes. These are adjusting intra-organizational processes, managing political aspect, ensuring cognitive match, and ensuring structural equilibrium (Anheir and Moulton, 1999). All of these processes need continuous matching of changed environmental expectation with organization's capability. In a networked economic system, this expectation is considered as structural expectation where as capability is considered as the net result of interaction among intra-organizational networks (Nahapiet and Ghoshal, 1998). In previous section of this paper, it is argued that the fit between these two will enhance social capital of a firm and will affect its performance. This section deals with this very topic of performance implication of social capital in case of a structural change in the network where the firm operates. The objective of this section is neither to go into the details of the structural expectation nor to explain how to enhance the capability of firm. However, by depicting a process model (Figure 1) this section will shows how even with similar antecedent social capital, variation in management of network renovation leads the firm to four different strategic spaces; each one of which relates to different levels of performance and sustainability for the firm.

Insert Figure 1 about here

This model is divided into three stages. The first stage (first three boxes from left) explains how a fit between structural expectation (emanating from initial structural position of the firm) and firm capability lead to an increase in organizational social capital. The second stage (next six boxes) describes in detail how the increase in social capital coupled with a few other factors lead to network renovation triggering a structural change in the existing network. This stage also describes various network possibilities in such a changed scenario. The final and third stage (last four boxes) of the model deals with the strategic spaces available to a firm as a result of changed network structure. It also briefly describes the performance implications of these strategic spaces.

The Initial Phase (Stage I)

As discussed earlier, the structural view opines that an organization embedded in a socio-economic network enjoys certain intangible assets which are primarily sourced from its structural position in the network, the relation it enjoys with network members and the content of those relations (Coleman, 1990). These relations are based on reciprocal action and successful fulfillment of each others need. For example, in business context, it is often observed that network formation occurs as a member of a network tries to exploit the complementary resources and capability available to the partner (Galaskiewicz and Wasserman, 1981; Kogut, Shan and Walker, 1994). Thus to sustain a network it is not only important for a firm to have favorable structural position such as higher number of ties and complementary partners but it is also important to fulfill the expectation of it's network partners. Continuous and satisfactory fulfillment of expectations will enhance the bondage, increase the trust and sustain the reciprocal relationship (Sherwood, 2006).To fulfill the expectation of the partner it is crucial for the firm to have necessary capability so that dissatisfaction doesn't occur resulting in loss of social capital. Thus the match between expectation which is a function of initial network position and the capability to fulfill that expectation contributes towards sustained and successful relationship with network members such as partner firms and hence helps to increase social capital of the firm. This increased social capital translates into high reputation, provides a signal of reliable partnership with required capability to other members of the network, and enhances performance because of the success of the relationships (ibid).

The Process of Structural Change (Stage II)

Increase in social capital has a dual effect on the network. In one hand it increases the options available for the firm for collaboration in a changing environment and in the other hand it also increases the expectation of potential partners from future collaborations. Increased social capital increases the propensity to collaborate because potential network members choose to partner those firms who have proven success in alliances, have high reputation and complementary resources. For example, Stuart (1998) notes that the structural position enjoyed by high prestige firms having high social capital positively affects partner firm's propensity to collaborate. Past success history, high level of trust, reputation not only attracts new partners but also contributes to the success of the collaboration (Singh and Mitchell, 2005; Sherwood, 2006). Increased expectation from partners coupled with changed business environment - due to various socio-economic factors including the prospect of new entrants in the network - needs development of new capability by the firm to fit itself to the changing environment and to be successful. More over, new partners come with varied expectations and the firm needs different sets of capability to cater to those expectations. Thus, on one hand while the increased social capital opens up a portfolio of possibilities to extend or restructure the network in an ever changing business environment, on the other hand it also demands new capabilities to be developed to cater to those environmental uncertainties and to meet the network expectation.

Managing the external network: Increased network possibilities, explained in previous paragraph, however don't necessarily translate into the best possible network formation in changed circumstances. Formation of new network relation is constrained by information asymmetry, bounded rationality, satisficing behavior of managers/entrepreneurs and personal network of influential executives. Change in network also depends on the potential partner's demand and capability, competitive characteristic of industry and institutional constraints including legal barriers. These variables lead the firm towards establishing either disconnected contact or connected contacts. Disconnected contacts provide non-redundant complementary knowledge and information that may be directly useful or can be brokered to firm's advantage (Rodan and Galunic, 2004). Establishing contact with disconnected and diverse sources provides the same advantage of operating in 'structural holes'. It provides the firm access to complementary resources and diverse information that can be leveraged either for self-interest or for the purpose of brokering in a changing environment (Burt, 1992). On the contrary connected network will have the same characteristics as of a 'closure' which enhances social capital in a stagnate environment but fails to increase the social capital in a dynamic environment (ibid). In case of disconnected contact, it is also possible that the new network partner may be representing an altogether new set of skills, knowledge, and experience. In that case it leads to heterogeneity in relational content. Otherwise, the disconnected contact may also have similar characteristics like that of the partner leading to homogeneous relational content. At this point it is important to clarify the difference between disconnected contact and heterogeneous contact. Rodan and Galunic (2004) notes that while connectedness represent the structural characteristic of network; heterogeneity represents the content of network including attributes of individual firms. Connectedness provides information about the physical structure of network such as whether the firm is operating in a 'structural hole' or a 'closure'. While structural holes provide opportunity of brokerage and diversity in information; they don't necessarily provide access to diverse capability, resources, and knowledge base. In the same paper the authors provide evidence that both disconnected relations and heterogeneity has different implications and independently contributes to performance.

Network renovation proves to be beneficial in a dynamic environment if it enables the firm to create or exploit opportunities provided by a new structure, strengthen the existing network structure or reshape it so that new challenges thrown by changed environment can be successfully met. Two types of opportunities drive the network renovation/formation in a changing environment. *One*, network structure works as a vehicle for inducing co-operation through development of social capital. Here the network structure functions as a system level resource to facilitate the governance of their relationship. *Two,* Gaps in the pattern of information flow provide potential profitable opportunities for establishing connection between unlinked firms (Walker, Kogut and Shan, 1997).However establishing network with similar firms having similar capability and forming close relationships with them neither bridges information gap nor produces the required system resource because of absence of diversity. Then question arises why firms establish network with similar firms even in a changing environment. Maurer and Ebers (2006) in their study of Germany biotechnology firms find that the personal relationships of entrepreneurs and the changing nature of these relationships play an important role in shaping the network of parent organization. Because individuals and organization are both bounded rational it is possible that they will choose a new partner from the available options which may not be the best fit given a particular environment change.

In some other cases the organization and entrepreneurs are forced to form a network even if they are not the best fit because of urgency of need and/or competitive pressure. Under these circumstances the new network will contain relations those are not as diverse and heterogeneous as it required to be. The other reason is that, establishing disconnected contact is not only time consuming but it demands significant amount of cost to establish and maintain that kind of network. More over a disconnected network structure is not the panacea for each and every problem. Therefore it is desirable only if the cost-benefit analysis favors establishment of such network (Rodan and Galunic, 2004). It is possible when a potential partner represents disparate knowledge base that exactly fits present or potential need of the firm. However while choosing a partner; choice often gets hijacked by diversity of operation, size and reputation of the potential partner, not by the diversity of knowledge base that is required. In this situation even if the network seems to be diverse and disconnected it does not provide the benefit of heterogeneity. More over it adds to the cost and constraint of maintaining that network.

Managing the internal network and capability: Parallel to the external activity of network renovation which includes partner search, establishing contact, maintaining and cultivating the relations; another important activity needs to be looked after by the firm. That is enhancing capability. It may include activities such as acquiring new knowledge, technological innovation, product and process change and structural reconfiguration to match the changed structural expectation triggered by network renovation. In case of network renovation, capability enhancement is critical for two reasons. (1) To be successful in learning races. Such races are most likely to happen when the private benefits that accrue to any of the partners after learning from the other, is greater than the common benefit of the alliance and/or present value of future network relation (Gulati Nohria and Zaheer, 2000). In network context the antecedent condition that fuels learning race is, when required capability is absent with either of the partner firms, but can be acquired when the combination is operational or the network is established. In this situation learning races happen in the mode of cooptation. Thus if one partner firm fails to acquire the complementary capability from the other where as the other one successfully does that, then the first firm not only looses its significance in the network but it's extinction from the economic system looms large. (2) In situation where the environment is so dynamic that the existing capability of a firm, the very capability that attracted partners and created social capital, becomes useless. In that case the firm has to enhance its core capability to be relevant in the changing environment and to remain attractive as a network partner.

For example in 1980s, when the computer chips and IC industry was going through rapid change and rival players were building networks to compete with each other and establish industry standard; it was necessary for partner firms to constantly upgrade their own capability even to remain relevant in their own network. As a matter of fact, Intel has to continuously invent new chips with alternative designs that required acquisition of new knowledge and capability. It helped Intel to remain in the network of Microsoft and others and also helped to dominate the IC value segment. Otherwise the danger of replacement by a rival player was very real. Such industries whose value chain comprise of a network of organizations where each firm caters to one segment of the value chain; continuous capability enhancement is the key to appropriate value from the network and it is a redundancy to say that network in these industries is the key to survival. However, capability enhancement in a network structure is not easy to accomplish. Capability enhancement demands significant investment of money and time. More over the nature of capability to be developed remains very fuzzy in a changing environment. If feasibility of capability development depends on technological innovation then it becomes unpredictable. It is also to be noted that the very reason of establishing a network is to exploit the complementary capability of the partner. Thus it is also natural for an organization to become complacent (though unconsciously) after establishing a network and expecting that network is the panacea for all its requirements. Thus managerial myopia, longer time horizon, and high cost may even lead to stagnation in capability improvement.

The discussion in the previous paragraphs leads us to following illation. Two simultaneous scenarios evolve as a result of increased social capital in the first phase. (1) It enhances the possibility of network renovation i.e. it provides a large set of strategic options to the firm to increase, alter, or maintain the network. However, firms vary in the way they exploit the options available to them for establishing new networks. For varied reasons, described earlier, some firms establish disconnected contacts that facilitate heterogeneity in network, where as others maintain/extend connected contacts resulting in a 'closure' type network. (2) It increases the structural expectation i.e. it increases the expectation of network members and various stakeholders of the organization. To meet this enhanced expectation of stakeholders and network members it is required for the organization to alter or enhance capability. For reasons, described in the previous paragraphs, the firm either successfully increases its capability, or it fails to do so resulting in stagnation. Thus four scenarios evolve after the first stage namely, stagnant capability vs. changed capability and disconnected network vs. connected network. The combination of any two from the mentioned four scenarios results in different strategic spaces. These strategic spaces depend on the antecedent conditions such as nature of network and the change of capability and lead to an altogether different posterior situations in long term. The next section will describe the four strategic spaces available for a firm and their effect on firm performance.

The Strategic Spaces and Their Performance Implication (Stage III)

Response of firms to increased network possibility and handling of enhanced network expectation leads firms to have a combination of any of the two response types. The model (Fig 1) shows four possible combinations namely (1) disconnected contact with enhanced capability (the top box), (2) disconnected contact with stagnant capability (the bottom box), (3) connected contact with enhanced capability (second from top)' and (4) connected contact with stagnant capability (second from bottom) leading to four different strategic spaces. These strategic spaces are primarily organizational and network conditions that constrain or enhance the scope of structural position as well as relational content of a firm in a socio-economic network, thus affecting long-term profit potential of the firm. Strategic spaces are the new situations for firms as a result of their conduct in past time period. Putting it in network terms, strategic spaces are the consequence of network management by the firms in earlier period. When a firm successfully establishes contact with disconnected firms it is availed with brokering, arbitrage opportunity, and access to diverse information (Rodan and Galunic, 2004). In an economic system, firms don't establish network / alliances only for accessing diverse information and boosting political maneuverability but they choose partners carefully to access complementary resources and needed capability and to have exposure with disparate knowledge base. In other words, they need both structural advantage and content advantage. Thus it is natural for a firm who is availed with a large set of alternatives for network renovation will optimize the opportunity by establishing contacts with disconnected and heterogeneous others, if and only if it can do so. Contact with disconnected but homogeneous firms will only provide limited advantage similar to operating in structural holes and the firm will still be proscribed of accessing diverse capability through co-operative association.

Disconnected heterogeneous contact provides both structural advantage such as exploitation of information asymmetry, occasional political maneuverability as well as advantage of relational content such as access to complementary resources, skills, co-operative learning. However, in a networked economic system all firms weighting their limited options expect to maximize their structure and content outcomes. As described in earlier sections to match expectation of these networked relations, a firm needs higher capability .This capability includes diverse set of internal traits such as knowledge base, power, bargaining capability, co-ordination capability, innovativeness, and so forth. Thus in the process of network renovation the firm has to simultaneously enhance or change the capability to meet the structural expectation. A fit between structural expectation and capability will contribute to the success of network and will start a positive spiral of social capital. It will enhance trust, ensure learning, ensure continuous access to complementary resources, distribute business risk and minimize environmental uncertainty. Clearly this combination leads the firm towards a very positive strategic space that contributes to competitive advantage.

If a firm successfully establishes disconnected and heterogeneous network by leveraging past social capital but fails to enhance its capability, then imbalance in reciprocal relationship happens. The growing discontent of partners because of unfulfilled expectation will gradually deplete the social capital of the firm. The firm will be seen as dependant on partners rather than be seen as a worthy and equal partner. It will decrease the power of the firm in network and will negatively affect value appropriation of the firm. Thus this combination leads the firm towards a strategic space where it becomes partner dependant, hence constraining its future option for relations and negatively affecting its social capital in long term. It will also be disadvantageous in case of a learning race because this strategic space provides no constraint to the partner for knowledge acquisition where as it makes the same difficult for the stagnant firm. This strategic space urges immediate attention from the organization for complementary capability building and necessary course correction.

Capability enhancement helps a firm meeting the expectation of network members and enhances the attractiveness of the firm to potential partners. It simultaneously increases the bargaining power in a network relation and commands trust in case of sustained relationship. However increased capability with 'connected homogenous contact' doesn't lead to the same advantage like that of 'disconnected heterogeneous contact'. Though it makes partners more dependant on the firm, thus increasing the power and probability of value appropriation from network relations in short term, it gradually minimizes firm's access to complementary resources, learning and all other content based outcomes. Therefore, it defeats the very purpose of establishing network which is supposed to provide security against environmental uncertainty and facilitate distribution of risk. Thus, in long term, the firm makes itself vulnerable to environmental changes such as change in industry structure, technological innovation etc. Clearly this combination leads the firm towards a strategic space where it becomes dependant on environmental variables which can't be controlled directly. This strategic space is more like a one-man show. As long as the steward firm's capability meets environmental demand the network does well, otherwise collapses.

The worst strategic space is created when a firm not only becomes unsuccessful in establishing disconnected and heterogeneous contact but also becomes stagnant with respect to capability enhancement. This situation is the same as a person who wants to commit suicide and there is no one to lend a helping hand. Stagnation in capability will lead towards loss of potential relations and depletion of power in existing network. Where as absence of disconnected and heterogeneous contacts will minimize the firm's access to complementary resources, capability and will restrict its political maneuverability. Clearly this strategic space leads to relational and cognitive lock-in resulting in inertia of social capital in short term (Maurer and Ebers, 2006) and depletion of social capital in long term, hence negatively affecting its performance.

In a dynamic environment, the four strategic spaces lead firms to different performance possibilities. The first strategic space, the ideal one, by combining own capability and heterogeneous resources available from the network, facilitate the firm ascending an upward spiral of partnership. It results in increasing social capital and leads to sustained competitive advantage. The second strategic space characterized by stagnant capability makes the firm more dependent on partners and in long term the firm looses its partnering appeal to other firms in the network. In industries where network is critical for success, this strategic space leads to decrease in value appropriation in short term and negatively affects sustainability of firm in long term. The third strategic space with connected homogenous contact, though facilitates value appropriation by the firm in short term, it makes the firm more vulnerable to structural and environmental changes in long term. More dynamic the environment is, more vulnerable is the firm operating in this strategic space. In industries characterized by rivalry between two competing networks, this strategic space recognized by one-man show, may even lead to un-sustainability of the whole network. The fourth strategic space results in lock-in leading the firm to self-destruction mode.

DISCUSSION AND CONCLUSION

Social network literature asserts that conduct and performance of firms can be understood by examining the network of relationships they form and their relative position in the network structure (Gulati et al, 2000). They assume that similar network position leads to same amount of social capital which has similar performance implication. This paper modifies that argument and states that with similar anterior social capital but with varied conduct such as choosing disconnected heterogeneous vs. connected homogeneous contacts coupled with variations in capability enhancement, the firm moves towards four different posterior conditions termed as strategic spaces. These dissimilar strategic spaces resulting from variance in conduct leads to different performance scenarios in short term as well as in long term. In this way the paper differentiates between potential risk and structural advantage of a network and shows how interminable management with the help of 'collective' traits is the key to success. This paper shows dilated social capital is not an end by itself but a means to attain competitive advantage. It also shows social capital is not stagnant but it changes in both directions depending on the management of network.

The paper also contributes towards synthesizing both structural and individualist approach to social capital while explaining the process of network renovation and contributes to our understanding of network dynamics. While it is undeniable that structural approach is compelling and parsimonious, a pure structural view of social capital leaves considerable variance unexplained, especially when relationships mediate the change in capability and subsequent management process (Dougherty, 1992; Ibarra, 1993; Tsai and Ghoshal, 1998). The process model shows that, though enhanced social capital initially encourages the firm by providing wider and better options for network renovation, it also heightens structural expectation. The firm has no option but to respond to the change of the context and content of network. Clearly this fits well with the structural perspective which opines that firm's action is determined and affected by the network structure in which it is embedded. However the model also suggests that even if the firm has no option but to respond to the changes, it can still determine the way it responds. Even if the broad scope is defined by the structure, the firm shows a specific pattern of response based on its own 'collective' characteristic (or organizational charectoristic). It can draw analogy with a game of football, where the scope of game such as boundary, number of players involved and so forth are determined by the 'rule of game/structure' but how a player/team plays still depends on its skill, capability and other 'individualist' characteristics. Similarly, though structure of network represented by structural view does explain performance, it is essential to consider individualist perspective which determines the path a firm chooses concerning their future relations and capability; especially so while analyzing network dynamics.

Managerial implication and Scope for further research

In a networked and dynamic economic system, managing social capital and successfully renovating network is not an easy job for two accounts, *first* it is a continuous process that needs managerial attention, and *second* it necessitates managing diverse stakeholders having varied motive which often calls for resolution of conflicting interest. This requires considerable foresight amidst a thick fog of uncertainty to decide and to choose the best option available to the firm. It also needs establishing a fit between internal network outcomes to that of external network alteration. Generally, outcome of network dynamics is path dependant, the result comes with a time lag and after a certain point it becomes incorrigible. Thus it is required for a manager to understand what is good, what is bad and what will lead to the worst situation. This paper while describing the characteristics of strategic spaces shows what leads to good, bad and ugly situations and how it happens. Definitely, creating and maintaining social capital is good but it needs the firm to operate in the first strategic space that needs continuous capability enhancement, choice of disconnected and heterogeneous partners and establishing a fit between them. Any negligence in these three activities will lead the firm to the second or third strategic space, which signals: bad days ahead. Operating in these strategic spaces is a signal for immediate managerial attention and course correction, before it becomes too late. The firms operating in fourth strategic space are clearly in the 'ugly' situation. In a dynamic and networked industry it calls for the manager to perform a miracle ….and miracles do happen.

Though this paper broadly describes the process of network renovation and dynamics of social capital by showing the interaction between individualist and structural perspective, research in longitudinal setting is needed for empirical verification. Further research is needed to enhance our understanding about the nature and process of capability enhancement in a dynamic and uncertain environment. It is also required to identify the variables which determine the fit between network relations and capacity requirement and investigate the relation between them. It will also be worthwhile to explore the possibility of change in these strategic spaces as a result of managerial action and to study the effort required, the nature, ingredients, and consequent of this change. This paper by emphasizing the importance of management of organizational social capital in the context of socio-economic network aspires to provide a starting point to conceptualize competitive advantage as a result of successful management of network renovation.

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FIGURE 1
Structural Change and Strategic Spaces