A Literature Review of the Effects of Social Capital --From the Personal Network Perspective

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Abstract
From the sociologic perspective, people are not rational-economic man, but instead social man, as a consequence, the social capital will have significant effects on the organizational performance. However, there is no consistent conclusion about the relationship between social capital and its effects on performance, even no systematic, wildly accepted definition about the social capital. The aim of this article is to explore the general meanings and dimensions of social capital, and review the influences and effects of social capital on organizational performance at the individual level, network level, and organizational level from the personal network perspective.

Keywords: social capital dimensions influences personal network

1. Introduction
Social capital can be simply said as the resource embedded in the social relationship and can be explored and used for some specific goals, however, since social capital is mainly intangible, there is still no uniform understanding, neither precise definition (Nahapiet et al., 1998), for instance, Burt defined social capital as the structure of relationship networks and information available to an individual (Burt, 1992), while Coleman even simply defined social capital as a type of capital, and can be developed when the relationship between individuals is utilized to facilitate their actions (Coleman, 1998). However, despite the diverse definitions, it is not difficult to find that social capital can be used as an instrument for some specific purpose; undoubtedly, this will influence the individual and organizational performance.

As for the effects of social capital on performance, some showed positive relationships (QUINETTA M. ROBERSON et al., 2012; Uzzi et al., 2003), some showed negative relationship (Rowley et al., 2000), while some showed no significant relationships (Lee et al., 2001). In the following sections, definition and dimensions about social capital as well as the effects of social capital on performance will be discussed, and some future directions will be discussed in the last section.

2. Basic concepts about social capital
2.1. Definition about social capital
Social capital has been wildly discussed from 1980s, however, there is still no precise and completely accepted definition, for example, Bourdieu defined social capital as the aggregation of actual and potential resources within a specific network, where the network is composed of relationships that involve mutual acquaintance and mutual recognition (Bourdieu, 1980), while Adler and Kwon defined it as the network of relationships which adds value to the network actors by accessing to the resources embedded in the network (Adler et al., 2002). Comparing different definitions about social capital, this article attributes them into three broad perspectives, the static perspective and the dynamic perspective, and the mixed perspective.
The former one focus on the static attributes of network, such as the network structure, including density, centrality, triangle relationship, the first and second structural holes, considering the ties, links, relationships within and between networks as the source of social capital, connections and ties mean the chances to access to resources and opportunities, generally speaking, the more ties and connections, the more social capital, one typical example is Burt's structural holes theory, which focus on the advantage of being broker connecting people who are not themselves connect each other (Burt, 2005);

On the contrary, the dynamic perspective focus on the interactions between network actors, compared with the static perspective, it is relative intangible, including norms, trust, values, beliefs, emotional affiliation and so on, in this way, social capital can only be embedded in the social network, unlike the static perspective, social capital cannot be owned by individual actor, and non-existing beyond the network, for example, the trust within a certain group, social value and so on (ROEL RUTTEN et al., 2010).

The third one is the mixed perspective, mixing the static and dynamic perspective, both considering the network structure and interactions between actors, for instance, Field considered social capital as a complex account of people's relationship and their value, as well as the way social ties can be activated to produce particular type of benefits (Field, 2003). It seems that the third perspective should be the best one, however, it maybe difficult to mix tangible and intangible attributes in one research; Besides, since people are social man, even networks have the same structure, the social capital may different significantly, even in the same network, the social capital of actors may still have significant difference, as a result, the dynamic perspective may provide better explanation, however, it still can not be said which one is the best, in different contexts, or for different purposes, neither one can be the best choice.

### 2.2. Dimensions of social capital

The diverse and inconsistent definitions about social capital result in various understanding about its dimensions, different levels, different forms, even different characteristics can divide social capital into different dimensions. From the different levels perspective, social capital can be divided into individual level, including benefits or potential benefits that accrue to an actor as a result of social network, and communal level, including civic spirit, community trust, adherence to beneficial norms (Martin Kilduff et al, 2010); From the forms perspective, the dimensions of social capital can be divided into three forms, including trustworthiness, information flow capacity and norms accompanied by sanctions (Wei-ping Wu, 2008; Coleman, 1988); From the characteristics perspective, it can be divided as structural dimension, relational dimension, and resource dimension (Ignacio Castro et al, 2013). Moreover, there are still some other opinions about the dimensions of social capital, such as bridging social capital and bonding social capital (Francesc Xavier Molina-Morales, 2010), instrumental ties and expressive ties (Ibarra & Andrews, 1993), cognitive dimension, relational dimension and structural dimension (Wei-ping Wu, 2008; Nahapet & Ghoshal, 1998).

Since the mixture of tangible and intangible nature of social capital, it is almost impossible to give precise and clear definition about the dimensions, however, it is still possible to identify some general dimensions from the nature of social capital, including tangible dimension and intangible dimension (in this article, it is called interactional dimension), and this article only focus on the individual personal network, the actors are only individuals, not including organizations or groups. The tangible dimension mainly including the network structure and resources owned by individual actors, the network structure represents the components and structure of the network, mainly including the network density, size, individual direct and indirect ties, the individual position (for example, brokers or isolate points), the reciprocity, multiplexity (MARTIN KILDUFF et al, 2010), the centrality, the closeness and so on, the structural dimension gives a general graph about the personal network.

The resource owned by individual can be simply understood as the quality of the social network, and is the main source of social capital. However, it is not difficult to understand that the resources will affect the network structure significantly, for example, resources owned by people in the same cluster are more similar than others in the other cluster, and this will increase the average path length in social network (Uzzi et al, 2007), in turn, the network structure can also influence the resources individuals owned or accessed, especially the hierarchic connection, such as the external bridging (MASSIMO MAGNI et al., 2012).
The intangible dimension mainly refers to the things critical to the network, but can not be easily observed or measured exactly, and usually represented during the interactional process, as a result, it can be called as the interactional dimension, including trust, norms, social value, shared vision, obligation, recognition, social participation and so on. Usually, the intangible dimension can provide great benefits for the actors, for instance, trust can help star employees to prevent information overload (James B. Oldroyd et al., 2012), in addition, the network structure can also influence the intangible dimension, for instance, the closure level can influence the diffusion of responsibility (Massimo MagnI et al., 2012); however, unlike the resources and assets owned by individuals, the intangible dimensions can be viewed as the assets and resources that can only be embedded in the network, and cannot be owned by the individuals. Compared with the tangible dimension, the intangible dimension is usually related to the perception, even the same sub-dimension can be perceived different significantly. In general, the tangible and intangible dimensions can generally represent the core ideas about social capital.

3. Effects of social capital on the organizational performance

Social capital can be viewed from different perspectives, this article only focus on the personal network, and the actors focused are only individuals, however, the tangible and interactional dimensions can influence the organizational performance at different levels--individual level, network level, and organizational level.

3.1. Effects of social capital at the individual level

Since actors are the direct participants of the social network, so the direct effects of both tangible and interactional dimensions of social capital are at the individual level. Structural social capital has important influence at the individual level. For instance, people located centrally within network are less likely to be depressed than those on the periphery (Rosenquist et al., 2011), however, the centrality may also cause some negative effects, take the star employee as an example, since the high performance and high visibility, star employees are usually located centrally within the network, despite the more information received and sent, they may also experience information overload (James B. Oldroyd et al., 2012). Another important sections are about the bonding and bridging, especially the bridging, bridging ties connect diverse social groups, while bonding ties only connect actors in the same group (Putnam, 2000), according to the bridging and bonding theory, people in the same group may own similar resources, if connection with the other groups, people can access to different resources, thus can benefit the individuals, many researches have show that bridging can positively affect individual-level outcomes, including job-seeking prospects (Granovetter, 1985), career success (Podolny et al., 1997).

Compared with bridging, bonding is often related to the strong ties and trust, as a result, bonding ties and bridging ties are considered complementary instead of totally contrary, strong ties is the base of trust, and can promote exchanges of high-quality information as well as tacit knowledge (Francesc Xavier Molina-Morales et al., 2010); however, there are also disadvantages of the strong ties, for example, strong ties may not be benefits for acquiring different information or resources (Burt, 1992); Another important structural social capital is the type of connection ties, in general, expressive ties are positively related to performance at the individual level, even some researches show that the relationship is not significant, however, most researches have showed the positive relationship, for instance, expressive ties in the self-managing team is positive related to procedural justice climate (Quinetta M. Roberson et al., 2012); As for the advice or instrumental ties, it can help to promote the transmission of information (Adler and Kwon, 2002), knowledge sharing (Vathsala Wickramasinghe et al., 2011), although there are some researches shows no significant relationship (Emma Bassett et al., 2013), there is rare evidences show the negative relationship between connection ties and performance, the main reasons may be that most analysis are from the egocentric perspective, rarely from the other alters perspective, such as the actors giving advices, or the data collection, analysis methods are not so precise, perhaps in the future, there will be some improvements.

Despite the network structure, the resources owned by the actors also have significant influence at individual level, there is no doubt that the main advantage provided by the social network is the access to different actors, in another words, the access to different resources owned by the actors, especially the brokers and actors with high degree, take the information as a key resource (Bin Zhu et al., 2010), the more quality owned by the actors in the network, the more value actors can get from the social ties.
However, the results are not consistent, for instance, from the perspective of the receivers, it may increase the individual performance, however, from the perspective of sender, especially the information owned by the senders are valuable for receivers, while the senders cannot get valuable information from the receivers in turn, in this way, the individual performance may be negatively affected. However, it is usual that actors within the network always own some resources that are valuable for the other actors, actors are exchanging information instead of simply sending or receiving, on the other hand, it does exist network that some actors cannot acquire some resources valuable, but need to give in some valuable resources, such as sharing some valuable information, providing some good jobs, those networks are often created and maintained by kinship, friendship, or some other emotional affiliation, however, at the organizational level, social network is considered as a whole one, thus the acquirement or loss of individual actors are not considered at the organizational level.

The last one is the effects of interactional dimension at the individual level, including trust, social norms, shared visions, obligations, recognitions, among which trust is the core concept in the research of social network, trust is even more important than the structural social capital, it is obviously that if actors in the network do not trust each other, no matter how density the network is, how high degree the actors own, they will not be willing to share valuable information, help each other. Many researchers have shown the benefits of trust to the individuals, for instance, the inverse relationship between trust at the individual level and depressive symptoms (Aslund et al., 2010; Webber et al., 2010), however, trust may not always provide benefits, in a network with high extent of trust, individuals are more likely to have depression if their direct like friends and indirect ties like friends of friends also report depressive symptoms (Rosenquist et al., 2011), while some show no significant relationship (Fujiwara & Kawachi, 2008). Although the results about the trust are not consistent, most researches have shown that trust is the base for the network, the effects of trust at the individual level is generally positive, such as information, experience, and knowledge sharing (Vathsala Wickramasinghe et al., 2011; Adler and Kwon, 2002).

### 3.2. Effects of social capital at the network level

Compared to the individual level and firm level, the network level is in the middle, sometimes, it can be considered as the team or group level, however, it is a little broader than the team level, since one team member usually have diverse ties with the other team members, however, in this article, the network level and team level sometimes used alternately. Perhaps the most significant effects of social capital is at the network level, since it is almost impossible for individuals to contact everyone within the organization, social capital can diminish the probabilities of opportunism, reduce the need for costly monitoring, reduce transaction costs (Oh et al., 2004), however, the benefits mentioned by Oh are usually happened at the network level.

Different from the effects of social capital at the individual level and organizational level, team members usually have connections with almost every team member, and every member's degree and centrality are usually very high, consider a team as a network, the network density is usually very high, and the ability of team members to cooperate with each other can improve the overall performance of the organization (Marks et al., 2001; Vishal K. Gupta et al., 2011), in this way, the structural social capital is positively related to team performance. However, the relationship is not simply linear, may be curvilinear, for example, the inverted U-shaped relationship between the individual and team's structural capital and the knowledge sharing in the team (Yan Yu et al., 2013).

Compared with the whole organization, trust within team is usually much higher, and trust can help team member to embrace diverse viewpoints, thus will be of help for the team performance like creativities, innovation (Qinxuan Gu et al., 2013); Despite the trust, another important attribute of team is the shard vision, shared vision can help to motivate team members and integrate different knowledge and experience, thus improve the team performance (Rickards et al., 2001), in this way, the effects of interactional social capital (trust and shared vision) at the team level will be positively related to organizational performance. In addition, there are also some researches show some different results, such as no significant influence on IS project team performance of the ties with the different network groups (JinYoung Han et al., 2013), there is no significant positive relationship between the group social capital and team effectiveness and in-role performance (IJ. Hetty van Emmerik et al., 2009), the team internal closure has a curvilinear (U-shaped) relationship with individual technology use (MASSIMO MagNI et al., 2012), while there are little researches show the negative relationships, the reasons may be the limitation of samples, or focus on too specific aspects of team performance, or may because of some moderators or mediators, such as the mediating effects of the ability of team learning from the mistakes and team psychological safety (Qinxuan Gu et al., 2013), team learning behaviors (Hetty van Emmerik et al., 2011), the
moderating effects of collective transformational leadership (Vishal K. Gupta et al., 2011), however, such results are not prevalence. In general, because of the unique nature of team or group, both the structural, interactional are closely correlated, most researches indicate that both the structural and interactional social capital are positively related to team performance (Vishal K. Gupta et al., 2011; Qinxuan Gu et al., 2013; Aaron W. Clopton, 2011), team commitment, and knowledge sharing (Chieh-Peng Lin, 2011).

Following is about the resources, in this paper, both tangible resources like position, capital and intangible resources like experience, interpersonal influence, information, ideas are considered, take the position and experiences as examples, especially in the bridging, combined with the structural hole theory (Burt, 1992), position and experience sometimes decide the valuable of the information, knowledge acquired by the weak tie, thus influence the organizational performance at the network level, the more important one is, the more valuable information, knowledge he/she can acquire, for example, if the social positions of actors are identical, then they have identical opinions at equilibrium, if actors are not structurally equivalent in the network of interpersonal influences, then the social influence process does not necessarily reduce dissimilarities of initial opinions (Noah E. Friedkin et al., 1997). However, position itself may not be enough for taking the advantage of non-redundant information, since the potential impairment of sharing caused by the relative low level of trust, thus moderators like motivation and knowledge sharing ability are needed.

Another important resource owned by the actors in the network is the experience, which is emphasized here because the relative more frequent interactions between team members, individual experience will influence the others behaviors significantly, as well as the cohesion and cooperation within the team network, moreover, it can also influence the connections with other groups or individuals, experience is the valuable resource, however, the effects on the organizational performance at the network level maybe ambiguous, on one hand, experience can reduce the training costs and increase the productivity (LARRY W. HUNTER et al., 2007), on the other hand, experience may cause some problems, such as path dependence, impair to learn new things quickly, worse still, employees with abundant experience may also want more power and more desirable for empowerment (Amarjit Gill et al., 2012), which may negatively affect the performance. However, in general, experience is still the valuable assets of network groups, once they can be utilized in the right way, they will positively influence the organizational performance at the network level.

3.3. Effects of social capital at the organizational level

At the firm level, connection between people within the firm and with outside parties can give firm or individuals access to new resources, which can be considered as the firm's social capital (Burt, 2000). Social capital is of importance to organizational performance, however, personal social capital cannot be owned by the organization, it can only be owned and utilized by the individual actors, once the individual leaves the organization, the organization will lose the individual social capital. In general, at the organizational level, social capital can affect organizational performance positively, at this point, the personal network is generally seen as a whole network, and the network is considered as the valuable organizational assets, actors in the network are considered as a whole group, instead of independent point, and focus on the total effects of network, rather than the effects on individual actors, even some actors in the network may not acquire equal or more value in the exchange process within the network, however, in detail, the different dimensions of social capital may influence the organizational performance differently.

First of all is the structural social capital, the network structure will have significant influence on organizational performance, the social network structure can be seen as the way people interact with each other, a good manager should be able to get the right people at the right position and explore the opportunities (Gregory et al., 2001). However, from the whole organization perspective, the researches about the structural social capital are not consistent, some researches have shown that it is benefits for the organizational performance, such as reaching niche market, sales revenue (Mariel Fornoni et al., 2012), PETER MORAN's research indicated that, compared with relational social capital, structural capital plays a stronger role in explaining routine, execution-oriented tasks (PETER MORAN, 2005), some researches do not confirm this, for instance, structural social capital is unrelated with organizational performance (Rhys Andrews, 2010), the structural embeddedness has no direct impacts on organizational performance (Bat Batjargal, 2003), the density of personal contacts and diversity of contacts have no significant relationship with organizational performance (Dan Ofori et al., 2010), the structural dimension of an entrepreneur's social capital cannot facilitate their access to information (Mariel Fornoni et al., 2012),
some research show nonlinear relationship, network-level diversity has an inverted U-shaped relationship with the firm's innovation performance (Sui-Hua Yu, 2013), some even have shown negative effects, for example, the social class diversity has negative relationship with core service performance (Rhys Andrews, 2010). It cannot be generally said the effects of structural social capital at the organizational level, different researches focus on different aspects, and different aspects have different influences, even the same dimension, the influence is still uncertain, take the density and information sharing as an example, the sparser the network, the likely the information and knowledge available to those contacts are non-redundant (PETER MORAN, 2005), however, the sparse network may not benefit for the building of strong ties and trust, while strong ties and trust is one of the core base for valuable information sharing (Uzzi, 1997), as a consequence, the effect of structural social capital at the organizational level is uncertain.

The resources owned by the individual in the network also have significant influence on the organizational performance, Batjargal considered resources dimension of social capital as the value of resources network agents are able to provide (Batjargal, 2003), according to the resource based theory (RBT), the valuable, rare, costly to imitate, non-substitutable resources can be the source of competitive advantage, without doubt, the resources owned by the individual actors decide the organizational performance at some extent, for example, the resources dimension of an entrepreneur's social capital facilitates their access to finance, production, information (Mariel Fornoni et al., 2012). However, the resources dimension in this article not only include the tangible resources such as positions, special sections, finance, individual capabilities, various connections, for example, the institutional ties, including contacts in various institutions such as the police force and within government departments can improve the organizational performance (Dan Ofori et al., 2010), but also the intangible resources, such as personal information, ideas, especially the non-redundant information and ideas acquired through the weak ties (Granovetter, 1973). Social network, even the social capital cannot create or add value for the firm itself, but through the exploration and utilization of the resources embedded in the network, for instance, the network ties cannot directly influence the organizational competitiveness improvement, but through the totally mediation effects of information sharing (Wei-ping Wu, 2008). In general, according to the RBT, in the personal network, the valuable, rare, costly to imitation, non-substitutable resources can provide potential benefits for the organizational performance, while this potential benefit itself cannot improve the organizational performance, instead, it can only be explored and utilized through the interaction and exchange between the actors in the network.

Since interactional dimensions are similar to the previous relational and cognitive social capital, many researches have shown the positive relationship, for example, Rhys Andrews's research showed that relational and cognitive social capital are positively related organizational performance (Rhys Andrews, 2010), relational social capital plays a strong role in explaining new, innovation-oriented tasks (PETER MORAN, 2005), cognitive aspects of social capital help to build shared visions and goals for the organization, thus will benefit the organizational performance (Dan Ofori et al., 2010). Trust is the core concept of the interactional dimensions, and is the key factor of social capital accumulation (Leana et al, 1999), while trust can lower the transaction costs (Gregory et al., 2001), thus will be benefit for the organizational performance; Besides, because of the intangible nature and stickiness of tacit knowledge, thus trust is the core base for the transmission of tacit knowledge within the organization, as a result, trust in the network is critical for knowledge sharing, thus has significant positive relationship with organizational performance (Dan Ofori et al., 2010); Moreover, there exists both formal and informal relationship between each other, and social network is of importance for informal contact, thus can promote the sharing and interaction between network members (Filip Agneessens et al., 2011), thus in the personal network, informal relationship can promote the interaction and information sharing in the network. However, there are rarely researches show that the interactional dimensions, like trust, shared vision, have negative influences on the organizational performance, In general, from the network perspective, interactional dimensions like trust, informal relationship may not directly influence the performance at the organizational level, but through promoting the interaction, information sharing, then influence the organizational performance.
4. Future Researches

Social capital has developed for decades of years, although there is still no uniform and precise definition about it, researches about the effects and influences on organizational performance are very rich, and this article summarizes them at three levels—the individual level, the network level, and the organizational level, however, many areas are still needed to be further explored in the future researches, including both the research contents and research methods.

Most existing researches are just stay on the level of finding the relationship between organizational performance and social capital, much fewer are about how to develop and maintain the social capital affiliated with the individual actors within the organization after the leaving of individuals, how to maximize the effects of social capital, while many current researches are just providing some general, theoretical suggestions or implications, such as keeping moderate network density and between’s centrality (Yan Yu et al., 2013), there should be more practical, as well as theoretical implication and application about social capital in the future.

Following that is about the dimensions, and the practical measurement, it is not unusual to find that most researches only use parties of the dimensions to represent social capital, such as centrality, density to represent the structural social capital, trust, frequency of interaction to represent the cognitional and relational social capital, however, social capital is a broad concept, different dimensions may have different effects, worse still, even the measurement of organizational performance is various, such as sales revenue, growth rate, the same social capital dimension may influence the performance in different directions, thus it cannot simply say whether social capital is positively (negatively) related with organizational performance or not, as a consequence, in the future researches, the precise definition and measurement about social capital would be considered seriously.

Next is about the data collection, analysis, and representation methods, surveys are still the wildly used methods for the data collection, for instance, about 43 percent of the researches about leadership and management using SNSC (social network and social capital) used surveys to collect network data (Mingxiang Li, 2013), however, the validity and reliability of surveys are often suspected and queried, worse still, since social capital is intangible, even the actors in the network may not be able to describe and assess exactly, even some in-depth reviews, the data collected may still be controversial, besides, there is also some loss of in the process of the statistical analysis, in this way, the validity and reliability about the final results may be very low, may be even lower than the general accepted level, as a result, more data collection, analysis and representation methods should be developed.

The last one is about the extensibility and explanation of the researches results, even the informant's descriptions and assessments are not correct and precise, because of the limitation of the researches themselves, especially the empirical and case study researches, many problems cannot be avoided, including the representativeness and availability of the sample, the timeliness of the data, as well as the validity of the relationship between observed variables and latent variables, all these need to be further designed.

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