

The role of social capital and knowledge transfer in selling center performance

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Abstract:

Purpose: This paper aims to understand how organizational and interpersonal relationships influence selling centers, and how to form an effective selling center to establish cooperation among the functional departments to satisfy customer needs. **Design/methodology/approach:** The selling center and social capital literatures are reviewed. A social network perspective is employed to explore the internal and external relationships of corporate selling centers.

Findings: Building upon social capital literature and team literature, the authors propose that selling center performance is influenced by its internal and external social capital. Social capital influences selling center performance through facilitating knowledge transfer and absorption within and across the selling center. **Practical implications:** The findings help sales managers diagnose the problems of the social networks among their selling center members, to improve their selling center performance in the future. **Originality/value:** The paper investigates the relationships among social capital, knowledge transfer and absorption and team performance in the selling center context. By considering both intra-firm relationships and inter-firm relationships, this study provides a relatively complete picture of selling center performance and adds knowledge to the field.

Keywords: selling | social capital | knowledge transfer | team performance | customer orientation

Article:

Introduction

Leading organizations such as Lucent Network Systems, Proctor & Gamble and Xerox, have begun to form cross-functional selling centers as a means to better understand customer needs and improve firm performance (Arnett *et al.* 2005). The selling center includes "all individuals from the selling firm who are involved in a particular sales transaction" (Moon and Gupta, 1997, p. 32). These individuals are from different functional areas. The cross-functional nature of the selling center enables it to manage the complex technical problems present in knowledge-intensive selling situations. It also provides access to resources to better meet customer needs and enhance financial performance. Although numerous theories and models have been

developed to explain selling and sales management in the individual sales context, much less research has been focused on selling centers. As selling firms grow in their use of selling centers, it is important for them to understand how organizational and interpersonal relationships influence selling centers and how to form an effective selling center to establish cooperation among team members to satisfy customer needs.

Social capital is a key driver of sales performance, especially in knowledge intensive contexts (Üstüner, 2005). With the rise of the networked economy, the ability to build social capital across networks becomes critical (Lesser, 2000). Although conceptual theories generally assert that social capital positively affects economic growth and organizational success, empirical work has produced largely inconsistent results. Some researchers found social capital improves team performance (e.g. Reagans and Zuckerman, 2001). Other researchers discovered social capital actually hinders effective teamwork. These inconsistent results suggest the existence of moderators or mediators between social capital and team performance.

The mere existence of social capital cannot directly influence selling center performance. Social capital benefits selling centers by providing them with access to knowledge. Building upon network, knowledge and team literature, we propose that the relationship between social capital and team performance is affected by knowledge transfer and knowledge absorption. Knowledge transfer is an important benefit of social capital (Inkpen and Tsang, 2005). Knowledge absorption involves analyzing, processing, interpreting and understanding the knowledge transferred from others. Both knowledge transfer and knowledge absorption contribute to create a successful and effective selling center. The primary objective of this paper is to examine how social capital facilitates knowledge transfer and absorption, and knowledge transfer in turn improves selling center performance (see Figure 1). This study seeks to integrate different literatures and provide a cross-paradigm framework that helps us understand relationships among social capital, knowledge transfer and absorption, and team performance in a selling center context.

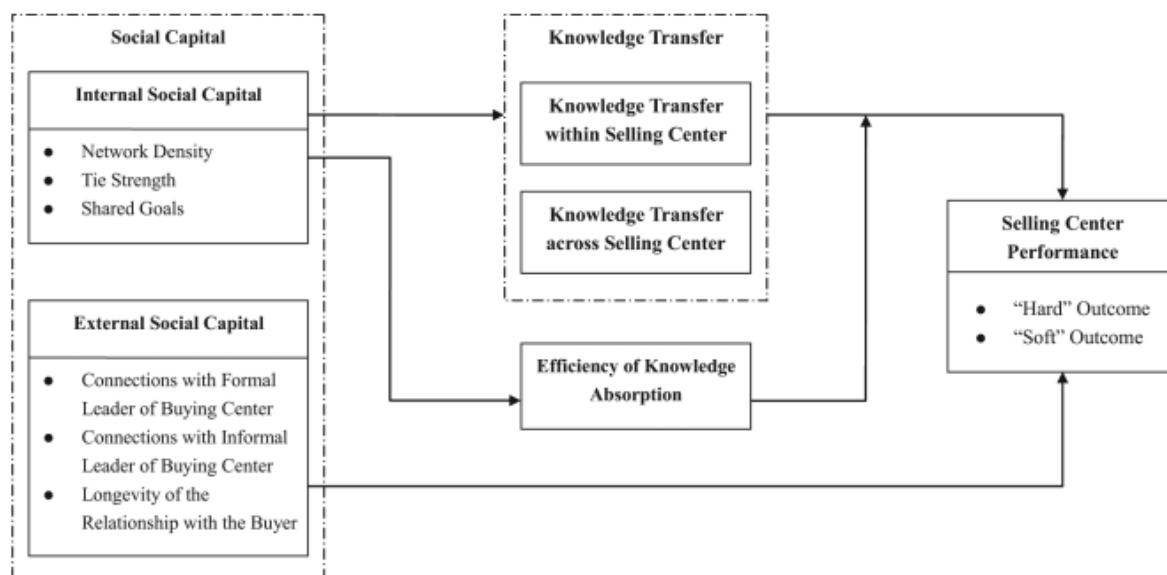


Figure 1. The relationships among social capital, knowledge transfer and selling center performance

Selling centers

Traditionally, firms rely upon individual salespeople to perform selling tasks. However, in today's industrial market, buyers look for salespeople who have thorough knowledge of complex products and also the skills to work as a bridge between various departments at both firms (Puri, 1992). The focus for selling activities has changed from influencing buyer purchase decisions to managing buyer-seller relationships. As customers' demands escalate, an increasing number of firms are forming selling centers to manage customer relationships and deliver customer value in these highly competitive situations. The primary objective of selling centers is to establish and maintain strong customer relationships. They are the product of relationship marketing applied to selling activities (Weitz and Bradford, 1999).

Selling centers are temporary project teams. They form and dissolve as projects are initiated and finalized (Hutt *et al.*, 1985). The selling center members are from different functional areas such as physical distribution, R&D, manufacturing and technical service. They accompany salespeople and help them respond to special requirements of buying firms. Managers are concerned about the cross-functional integration of selling center members. According to Spekman and Johnston (1986), three factors need to be considered in order to judge any cross-functional integration plan: level of strategic vulnerability, extent of control and cost.

Since individual salespeople do not possess sufficient knowledge or influence, the formation of selling centers can improve sales outcomes by combining resources and power from different functional areas that can be utilized during sales presentations and negotiations. The selling center is “the logical extension of the organizational buying center” (Moon and Armstrong, 1994, p. 18) and is established to correspond with its customer's buying center. Selling center members frequently communicate with people in the buying center. Both the selling center and buying center play a critical role in forming a long-term relationship between the two firms.

Selling center performance

To evaluate selling center performance, researchers have focused on different outcomes. Holland *et al.* (2000) claim that these different outcomes can be divided into two groups: “hard” outcomes and “soft” outcomes. “Hard” outcomes reflect the extent the group's output meets standards of quantity, quality, and timeliness required by users (Holland *et al.*, 2000). Since the selling center is a transaction-based unit, its main goal is “getting the order”. Although each team member may have her/his own goal, “getting the order” is the common goal of all selling center members (Moon and Gupta, 1997). Thus the “hard” outcome for the selling center is whether it achieves the sales goal. “Soft” outcomes reflect the degree to which the teamwork experience fosters team satisfaction and personal growth (Holland *et al.*, 2000). The “soft” outcome is important, since it has an impact on selling center members' willingness to participate in future selling teams. A selling center with a high level of satisfaction will facilitate developing trust among the team members and foster future cooperation. A selling center involving a high level of conflict can result in disharmony in the group and an unwillingness to participate in future sales centers (Souder, 1987).

Social capital

Social capital is a concept frequently studied by social scientists to understand social relations. It is roughly understood as the goodwill generated by the network of social relations (Adler and Kwon, 2002). The different social relations (i.e. friendship, family and work relations) can help people find jobs, obtain emotional and material support, generate new ideas and mobilize firm resources.

Dimensions of social capital

Different conceptualizations of social capital can be found in the literature. One perspective is used by social philosophers and political scientists, who describe social capital as norms of reciprocity and trustworthiness that arise from social networks (Putnam, 1995) or the informal norms that promote cooperation (Fukuyama, 1995). Structural sociologists have another conceptualization of social capital. They emphasize the structural aspect of social networks and view social capital as those structural aspects of a network that generate good outcomes (e.g. Coleman, 1988, Burt, 1992). Efforts by researchers have focused on synthesizing these many definitions by combining both the structure and content aspects of social relations. Nahapiet and Ghoshal (1998, p. 123) identify three dimensions of social capital: structural, relational, and cognitive dimensions. The structural dimension of social capital concerns the overall architecture and the pattern of relationships that define a partner's position in a network. Relational social capital captures the norms and quality of dyadic relations which is determined by the history of interactions between individuals. Cognitive social capital refers to “those resources providing shared representations, interpretations, and systems of meaning among parties”.

Structural dimension

Network density is often used to describe the structural dimension of social capital. It is the number of relationships an actor has developed within a network in proportion to the number of possible links within the network (Dahlstrom and Ingram, 2003). It is a rough measure of overall network complexity. Dense networks are associated with high levels of information sharing and shared beliefs among network members. Dense networks also contribute to the promotion of inter-firm coordination and development of relational norms in the network (Dahlstrom and Ingram, 2003).

Relational dimension

Tie strength describes the relational dimension of social capital. It is a dyadic view of a network focusing on the pairs of players. According to the strength-of-tie literature, relationships between social actors can be classified into two types, strong ties or weak ties (Granovetter, 1973). Strong ties have higher levels of frequency of interaction, emotional intensity, intimacy and reciprocity. These two types of ties have their own advantages and disadvantages. Strong ties are often developed by people in insecure positions for protection and uncertainty reduction. However, they also have a high degree of redundant and sensitive information. Weak ties are beneficial for

information diffusion. They provide people access to a greater amount and diversity of information (Granovetter, 1973).

Cognitive dimension

An important aspect of the cognitive dimension is shared goals among team members (Inkpen and Tsang, 2005). Shared goals are the extent to which team members share a common understating of achievement of group tasks and outcomes (Inkpen and Tsang, 2005). The cognitive dimension reflects the degree to which team members are committed to defined and accepted goals. For cross-functional teams such as selling centers, shared goals are critical for team success. Since team members report to the selling center leader and their functional supervisor, the selling center leader does not have complete authority over team members. Shared goals can motivate team members to share knowledge and cooperate with each other (Arnett and Badrinarayanan, 2005). The extent to which selling center members have common goals and are obliged to each other is important to selling center performance (Homburg *et al.*, 2002).

Internal and external social capital

Social capital and team research are two paradigms that focus on relationships. While team literature studies relationships in small work groups, social capital is about relationships within social networks. Therefore, it is necessary to integrate these two literatures to better understand intra-organizational phenomena (Katz and Lazer, 2001). The boundaries for social networks are fluid and fuzzy. When employing social network theory to study team phenomena, we define the network boundary as team membership. Thus, social capital is divided into internal and external social capital (Reagans and Zuckerman, 2001). Internal social capital results from a team's internal network, and external social capital results from a team's external network (Katz and Lazer, 2001).

Adler and Kwon (2002) argue it is necessary to combine the internal and external views of social capital since team performance is influenced by both sets of relations. A combined approach provides a complete picture of a team's relationships, which informs management how to balance investments in internal and external relationships. With limited resources, it is crucial for firms to carefully leverage these investments to improve performance.

Selling centers operate as social networks given their fluid membership and informal relationships (Smith and Barclay, 1993). Selling center performance is influenced by its internal and external social capital. On the selling side, the communication pattern among the selling center members is its internal network, which forms selling center internal social capital. The links across company boundaries to other organizational units – the buying firm or competitors – are part of its external network, which leads to selling center external social capital. This study considers both internal and external social capital, and examines their effects on selling center performance.

Knowledge transfer and absorption

Knowledge has supplanted land, labor and capital, and become the primary source of competitive advantage in the marketplace (Grant and Baden, 1995). According to Troilo (2006), marketing knowledge resides in three places. One part of the knowledge localizes in individual actors. Another part resides in the interactions in a community of practice within the organization. A large portion of marketing knowledge resides in the interactions of the marketing department with other functional departments. This last part is situated in the interactions of organizational members with market actors (customers, distributors, competitors and so on) (Troilo, 2006).

Knowledge that is understood only by individuals brings organizations little benefit. Knowledge does an organization good only if it is transferred through the organization, integrated with other knowledge and applied to practice. A firm's success depends upon how well it can obtain and absorb knowledge from various sources.

Knowledge transfer within and across the selling center

Knowledge transfer is “the process through which one network member is affected by the experience of another” (Inkpen and Tsang, 2005, p. 149). Knowledge transfer has become central to firm success, yet often remains stubbornly immobile within the companies. Promoting knowledge transfer within organizations has proven a difficult managerial challenge. Previous research has identified some organizational barriers to intra-organizational knowledge transfer, such as inter-functional disintegration and power distribution concerns (Atuahene-Gima *et al.*, 2005). To enhance intra-firm knowledge transfer, firms are forming cross-functional selling centers (e.g. Lucent Network Systems, Proctor & Gamble, Xerox) (Arnett *et al.*, 2005).

This study considers two types of intra-organizational knowledge transfer: knowledge transfer within selling centers and knowledge transfer across the selling center. Knowledge transfer within the selling center can help to present a consistent firm image to the business customer. It helps service representatives answer customer questions and solve customer problems more quickly. Moreover, it facilitates a reduction in selling costs and helps salespeople become more efficient and effective. Besides exploiting internal knowledge, selling centers also need to actively explore outside knowledge pertaining to customer current and potential needs. According to Tsai (2002), knowledge transfer across organizational units provides opportunities for mutual learning and inter-unit cooperation that contribute to organizations' innovative capabilities and business performance.

Efficiency of knowledge absorption

Knowledge absorption involves analyzing, processing, interpreting and understanding information obtained from others. There is a gap between knowledge transferred and knowledge absorbed. The acquired knowledge usually cannot be fully absorbed. Efficiency of knowledge absorption is defined as the ratio of knowledge absorbed to knowledge transferred in a selling center. Selling centers vary in their ability to assimilate knowledge because of their different team and team work characteristics. High knowledge absorption efficiency indicates that a large amount of knowledge transferred is absorbed by selling center members.

Social capital and knowledge transfer

In today's knowledge-intensive settings, knowledge transfer is heavily reliant upon informal networks of employees. Networks provide employees with channels to share knowledge with each other. Social capital greatly influences knowledge transfer in the way that “who you know” affects “what you know” (Nahapiet and Ghoshal, 1998). Previous research has shown that people rely much more heavily upon their informal networks than impersonal sources such as databases or file cabinets for information (Cummings and Cross, 2003). Network ties provide individuals access to knowledge. Dense internal networks are associated with cooperative norms, which facilitate knowledge transfer (Reagans and McEvily, 2003). Individuals are willing to transfer knowledge to maintain their standing in the group, since uncooperative behavior can impair their reputations. Hence:

P1. Internal network density is positively related to knowledge transfer within selling center.

Research on the relationship between the relational dimension of social capital and knowledge transfer has focused on understanding how the strength of a dyadic relationship is related to effectiveness of knowledge transfer. Strong ties are important because they are more accessible and willing to help. Strong ties can also reduce knowledge transfer costs, since they save the time needed to verify information. In selling centers, team members often need to transfer tacit knowledge such as individual skills, personal know-how, tricks of the trade and coordination principles that govern collective action. Strong ties provide motivation and ability for selling center members to transfer such tacit knowledge within the selling center. Therefore, we propose that:

P2. Internal network average tie strength is positively related to knowledge transfer within selling center.

Shared goals are critical for knowledge transfer. Pinto *et al.* (1993) demonstrated that shared goals can enhance knowledge transfer within cross-functional teams and impact project outcomes. Holland *et al.* (2000) also pointed out conflicting goals as one of the biggest obstacles for cross-functional teams. Because of conflicting goals, cross-functional team members often lack the time and resources to fulfill team responsibilities and often do not know how to reconcile team and functional priorities. Due to conflicting goals, team members are reluctant to cooperate. When there is agreement on team goals, team members are motivated to cooperate and share knowledge with each other, since they understand that by sharing knowledge they can more easily and quickly complete tasks. According to Weldon and Weingart (1993), teams working towards specific, shared goals consistently perform better than those working without shared goals. Therefore, we propose that:

P3. Shared goals are positively related to knowledge transfer within selling center.

Network ties provide individuals access to knowledge. Dense networks facilitate internal knowledge transfer. However, dense networks inhibit team members from performing broad searches for various external information sources (Perrow, 1984). Moreover, strong norms and

mutual identification generated by dense social networks can produce collective blindness, which limits the team's openness to new knowledge and alternative ways of doing things, (Coleman, 1990; Nahapiet and Ghoshal, 1998) hindering knowledge acquisition from external sources. Therefore we propose that:

P4. Internal network density is negatively related to knowledge transfer across selling center.

Knowledge transfer and selling center performance

Knowledge transfer within the selling center provides sales representatives information they need to answer customer questions and help solve problems more quickly, making them more efficient and effective at selling, cross-selling, and repeat selling. It also provides application engineers information about customer preferences, purchase history and the like. Such information helps engineers understand emerging product and service needs, and helps them launch new products and services faster than competitors. Previous literature has shown a positive relationship between knowledge transfer within project teams and functional outcomes. For example, Souder (1987) conducted a ten year study involving 289 projects, and demonstrated that knowledge transfer and cooperation within the project teams are strongly related to project success. Therefore we propose that:

P5. Knowledge transfer within selling center is positively related to selling center “hard” outcome.

Knowledge transfer within the selling center also contributes to improving selling center “soft” outcomes. Internal knowledge transfer can greatly enhance selling center cohesiveness, which binds selling center members to each other and to their teams (Holland *et al.*, 2000). Selling center members in highly cohesive teams have high task performance in terms of high levels of satisfaction and low conflict (Smith and Barclay, 1993). Moreover, knowledge transfer within and across the selling center is advantageous for team member personal development. Team members become more knowledgeable and broad-thinking by acquiring knowledge from others. Hence:

P6. Knowledge transfer within selling center is positively related to selling center “soft” outcome.

P7. Knowledge transfer across selling center is positively related to selling center “soft” outcome.

Social capital and selling center performance

Although conceptual theories generally suggest social capital is positively associated with team performance, empirical results have been inconsistent. There are inconsistencies regarding whether dense networks or sparse networks lead to better performance. According to Burt's (1992) structural hole theory, sparse networks are more efficient since they contain more non-redundant contacts. Dense networks could actually impair group performance. When people are

involved in exclusive network cliques in a large group, the solidarity of this large unit could be degraded. However, Coleman (1988) claims that closure of social networks fosters the emergence of effective norms, which limit negative external effects and encourage positive ones. Reagans and Zuckerman (2001) collected survey data from 224 R&D groups from 29 firms. They found both network density and heterogeneity account for team productivity. The teams with greater density of internal networks have higher productivity, and teams with greater heterogeneity have higher productivity. These inconsistent results suggest the existence of a potential mediator between network density and team performance. As we discuss above, internal network density is positively related to knowledge transfer within the selling center, which in turn positively affects selling center “hard” outcomes. Therefore internal knowledge transfer is a mediator between internal network density and team performance in the selling center context. Hence we propose that:

P8. Knowledge transfer within selling center mediates the relationship between internal network density and selling center “hard” outcome.

There are also contradictory opinions regarding how firms should be relationally embedded in the network. According to Uzzi (1996), strong ties are related to trust, which can reduce team conflicts and increase team coordination. Strong ties also provide people motivation to share information (Granovetter, 1985). Dougherty (1992) compared nine pairs of successful and unsuccessful new product projects and found sporadic communication between team members led to failed projects while consistently high communication between team members resulted in successful projects. However, Granovetter (1973) argued that weak ties are beneficial to searches for novel information.

Weak ties provide people with access to new information and resources. Hansen (1999) conducted a study involving 120 new product development projects undertaken by 41 divisions in a large company. He found weak inter-unit ties help project teams search for useful knowledge from other units and sped up projects when knowledge was not complex. These inconsistent results suggest the existence of a potential mediator between tie strength and team performance. In the above sections, we have developed hypotheses regarding the relationship between tie strength and knowledge transfer within the selling center and the relationship between knowledge transfer within the selling center and selling center “hard” outcomes respectively. Based upon these results, we propose that:

P9. Knowledge transfer within selling center mediates the relationship between internal network average tie strength and selling center “hard” outcome.

External social capital captures a selling center's external relationships. In business markets, customer relationships are especially important. It is important for a selling center to have specific ties to people who have power to influence the buying center's decision-making. These people could be formal or informal leaders of the buying center. External social capital in the form of strong ties with formal leaders helps selling centers get access to political support and access to relevant resources in a timely manner (Oh *et al.*, 2006). Most importantly, the selling center can influence the buyer's decisions by establishing strong ties with formal leaders of the buying center. External social capital in the form of strong ties with informal leaders of the

buying center can also benefit the selling center. Because of their central network position, informal leaders can help the selling center gain important information, as well as reduce possible resistance while fostering cooperation of lower-level workers in the buying center (Oh *et al.*, 2006). Strong and positive relationships with informal leaders also help the selling center gain emotional support and relevant information. Therefore we propose that:

P10. Connections with the formal leader of the buying center are positively related to selling center “hard” outcome.

P11. Connections with the informal leader of the buying center are positively related to selling center “hard” outcome.

Relationship longevity with the buyer is another indicator of a selling center's external social capital. Long-term relationship with a buyer can benefit the selling firm by reducing transaction costs for drafting, negotiating and safeguarding an agreement, maladaptation costs, and haggling costs. In addition, it provides the selling center detailed knowledge of the buying firm, its products, services and applications. More importantly, a long-term buyer-seller relationship provides the selling firm some strategic knowledge of the buyer's strengths, weaknesses, opportunities and threats. Such knowledge enables the selling center to identify opportunities and approaches for creating value, and getting the order (Weitz and Bradford, 1999). Hence:

P12 Longevity of the relationship with the buyer is positively related to selling center “hard” outcome.

Social capital and efficiency of knowledge absorption

Social capital facilitates knowledge absorption in selling centers. Dense internal networks provide individuals with considerable opportunity to learn from their network contacts and associates (Hansen, 1999; Reagans and Zuckerman, 2001). Although dense internal networks are inefficient in the sense that they contain redundant contacts and return less diverse information (Burt, 1992), it is shown that some redundancy is actually necessary for cross-functional teams such as selling centers (Cohen and Bailey, 1997). In selling centers, team members have quite different knowledge bases. Engineers have knowledge about products, salespeople have knowledge about customers and managers have knowledge about organizational processes. In order to fill in these knowledge gaps and ensure successful knowledge absorption, a certain level of redundant interactions are needed. Redundancy can help knowledge recipients absorb and understand knowledge in areas where they have no previous experience. Hence:

P13. Internal network density is positively related to the efficiency of knowledge absorption.

Strong ties are beneficial for knowledge absorption. Strong ties can create dyadic trust (Uzzi, 1996). Trust also can enhance team cohesiveness and increase inter-functional collaboration (Jassawalla and Sashittal, 1998). Trusting people are more prepared to admit uncertainty and seek help (Holland *et al.*, 2000). They also more proactively assimilate knowledge acquired from the other team members. Moreover, people are instinctively resistant to change. Trust that is

created by strong ties is necessary for people to take the risk of absorbing new knowledge and making some change in behavior (Tsai and Ghoshal, 1998). Hence:

P14. Internal network average tie strength is positively related to the efficiency of knowledge absorption.

Moderating effect of the efficiency of knowledge absorption

Knowledge transfer and knowledge absorption play different but complementary roles in enhancing selling center performance. A high knowledge transfer does not necessarily lead to enhanced performance. The explicit part of transferred knowledge can be applied to enhance performance even without analyzing, processing, interpreting and understanding. However, for the tacit part of the transferred knowledge, knowledge absorption is indispensable before it can be applied. Given that most knowledge transferred in selling centers is tacit knowledge (Moon and Armstrong, 1994), knowledge absorption is critical before applying this knowledge to achieve sales goals. In selling centers with high knowledge absorption efficiency, the knowledge absorbed approaches the knowledge acquired. The absorbed knowledge can be effectively utilized to solve problems during sales negotiations. Hence:

P15. The higher the efficiency of knowledge absorption, the stronger the positive effect of knowledge transfer within selling center on selling center “hard” outcome.

Efficiency of knowledge absorption also strengthens the positive relationship between knowledge transfer within the selling center and selling center “soft” outcomes, in the sense that it is advantageous for selling center member personal development. Knowledge transfer can help selling center members acquire the knowledge they need to complete the current selling task. However, it is insufficient for their personal growth. In order to develop skills and digest the knowledge, they need to combine their existing knowledge with the newly acquired knowledge. Only if the transferred knowledge is efficiently absorbed, can selling center members become more knowledgeable and broad-thinking. Hence:

P16. The higher the efficiency of knowledge absorption, the stronger the positive effect of knowledge transfer within (across) selling center on selling center “soft” outcome.

Control variables

In addition to the focal theoretical variables, we include some control variables in the model. The first is the size of the firm, which has been measured as the number of employees and departments or divisions, and organizational revenues. Firm size determines how many human resources the firm can invest in the selling center. Small firms usually have smaller selling centers than large firms. Other control variables include selling center members' education and experience. The more education and experience selling center members have, the higher their capability to assimilate and use new knowledge. Selling centers formed by well-educated and experienced employees usually can achieve better performance (Weitz and Bradford, 1999). Therefore education and experience are used as control variables for both efficiency of knowledge absorption and selling center performance.

Discussion

More and more firms are forming selling centers to manage customer relationships. As selling firms grow in their use of selling centers, it is important for them to understand how to form an effective selling center to establish cooperation among functional departments to satisfy customer needs. In this study we argue that both social capital and knowledge transfer and absorption are important for selling center performance.

Social capital plays a critical role in the selling center context. Building upon social capital literature and team literature, we propose that selling center performance is influenced by its internal and external social capital. Its internal social capital arises from its internal social network, which refers to the communication network between selling center members. External social capital arises from the selling center's external social network, which includes the selling center's connections with the customer's buying center. We consider the structural, relational and cognitive dimensions of social capital, in the form of network density, tie strength and shared goals respectively.

This paper combines the network and knowledge perspectives and proposes that the relationship between internal social capital and selling center performance is mediated by internal and external knowledge transfer. The selling center's internal social capital enables effective knowledge transfer, collaboration and integration of different expertise necessary for the selling tasks. We propose that network density, average tie strength and shared goals are positively associated with knowledge transfer within the selling center, which in turn influences selling center “hard” and “soft” outcomes. Knowledge transfer across the selling center benefits the selling center by enhancing the selling center members' personal growth. This study also highlights the critical role of knowledge absorption in strengthening the positive effect of knowledge transfer on selling center performance.

Results of this study suggest that selling firms should carefully leverage internal social capital and external social capital. Having too much of one source of social capital while having too little of another source can lead to a bad performance. An advisable approach is to consider all the social capital resources together. In addition, our results also indicate that the mere existence of internal social capital cannot benefit the selling center performance. Internal social capital only indirectly influences selling center performance through supporting knowledge transfer and absorption. It is important for sales managers to be aware of existing informal relationships among the employees and consider these relationships when forming selling centers. However, strong internal social capital does not guarantee good selling center performance. Sales managers should ensure that knowledge transfer and absorption take place. It is knowledge transfer and absorption that translate internal social capital into superior performance. Sales managers can foster knowledge transfer and absorption by evaluating performance and providing incentives based upon knowledge sharing, establishing times and places for knowledge transfer (e.g. joint planning sessions, cooperation with functional staffs) and creating common ground for selling center members from different functional areas through sales training (Puri and Korgaonkar, 1991). The selling centers that are able to use internal social capital to support knowledge

transfer and absorption will be more successful at getting the order and promoting team satisfaction as well as personal growth.

This study emphasizes the importance of external social capital of the selling center, which reflects the relationship between the selling center and buying firm. We propose that it has a direct positive effect on selling center performance. In business markets firms increasingly rely upon relational exchange to do business, where each transaction should be viewed in terms of history and its future. Values in change depend upon not only the features of the products or services, but also relationship consequences. Firms are concerned about joint accomplishments and mutual interests rather than individual utility. Under such circumstances, external social capital is particularly valuable. Our results suggest that sales managers can build external social capital by establishing, developing and maintaining relationships with formal and informal leaders of the buying center.

Conclusion and future research

This study investigates the relationships among social capital, knowledge transfer and absorption, and team performance in the selling center context. It considers both intra-firm relationships and inter-firm relationships and provides a relatively complete picture of selling center performance. As an exploratory research in this area, this study identifies some important relationships. They are not exhaustive. Future research can expand our framework by considering the selling situation (Hutt *et al.*, 1985) and studying its effects on selling center performance. Moreover, the propositions that are presented need to be empirically tested. There are many obstacles to conduct empirical research in this area (Jones *et al.*, 2005, Moon and Gupta, 1997). It requires time-consuming procedures such as snowball interview and network analysis, and is dependent on a high degree of cooperation from selling firms. However, most constructs in our framework have been operationalized by previous studies. Future research can use these measurements to test the proposed conceptual framework.

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