Network Bias: A Pitfall Inherent in the Relationship Selling

Kenichi Hosoi, PhD, Hiroshima University of Economics (Japan)
Yoshiyuki Nakagawa, PhD, Osaka Seikei University (Japan)
Yoritoshi Hara, PhD, Meiji University (Japan)
Miho Miyauchi, PhD, Chukyo University (Japan)

Abstract

The authors propose a concept of network bias of industrial salesperson's cognition. Although buyer-seller relationships are important, existing relationships could cause salesperson's cognitive bias in a prospecting process and disadvantageous position in business network. By reviewing research in network theory and personal selling studies, this paper provides specific propositions relating to network bias of salespersons. On the basis of these propositions, we would like to discuss directions of future research.

Keywords: Industrial sales, social network, structural holes, cognitive bias

Introduction

The importance of long-term relationships is widely accepted by marketing researchers (Crosby, Evans, and Cowles 1990; Morgan and Hunt 1994; Srinivasan and Moorman 2005). The term "relationship marketing" is applied to a number of different marketing activities ranging from consumer frequency marketing programs to selling activities. In sales management research, salespersons are regarded as relationship managers, playing a key role in development and management of buyer-seller relationship (Beverland 2001; Bradford and Weitz 2011; Landry, Arnold, and Arndt 2005; Tellefsen and Eyuboglu 2002; Weitz and Bradford 1999).

In this paper the authors propose a framework to explore a cognitive bias of an industrial salesperson which is inherent in relationship selling. Network theory reveals an ideal network structure which brings a lot of business opportunity to salespersons. Burt (1992)'s idea "structural holes" is one of the advantageous network structure. From the network theory viewpoint, sales job is quite simple, choosing right customer to get an ideal network structure.

In previous research of this authors (Hosoi et al. 2011), however, it is not easy to find right customer to link. When industrial salespersons try to sell their new product, they seem to have a tendency to assume that a customer positioned in center of a network is good customer. But that kind of customer is not always good for them. Sometimes they are too strong to build an equal partnership and then selling firms might fell into a disadvantaged position. That is, network sometimes hide a right person to link. We would like to call cognitive bias of industrial salespersons caused by network as a network bias. The purpose of the paper is present the concept of the network bias and discuss its effects on salesperson effectiveness.

Theoretical Background

The trend of personal selling studies has shifted from influencing buyer behavior to managing buyer-seller relationships. Needless to say, sales management studies have a long history. However, the research directly on the relationships has started not so long ago.

Originally, the study of personal selling started in the end of the 19th century for exploring what kind of qualities and abilities salespersons should acquire and how they should behave. From that time, personal selling research had been focused on salespersons themselves. There are a lot of research on correlation between sales behaviors, behavioral predisposition of salespersons, salespersons' capabilities, and salespersons' effectiveness. Unfortunately, results of these studies are quite inconsistent. Even variables that can be assessed with high accuracy and reliability, such as age, education, and sales experience, are related to performance in some studies and unrelated in others (c.f. Weitz 1981).

One of research streams stems from the research on salesperson characteristics is a dyadic approach (e.g. Evans 1963). Characteristics of the customer as well as those of salespersons are considered to be an important factor to determine salesperson performance. Some experimental research found similarity of buyer-seller dyad is a significant factor in

determining sales performance (Woodside and Davenport 1974; Mathews, Wilson and Monoky 1972) but sume studies couldn't find the significant relationship (Churchill, Collins, and Strang 1975; Evans 1963). Anyway, we could say dyadic approach is the first approach investigating buyer-seller relationship.

However, empirical research based on the dyadic approach has concentrated on static properties of the customer-salesperson dyad such as similarity and relative expertise (Busch and Wilson 1976; Riordan, Oliver, and Donnelly 1977; Woodside and Davenport 1974). Dynamic nature of buyer-seller interaction couldn't catch by this approach (Weitz 1986).

From reflection of these studies, the cognitive approach or the adaptive selling approach (e.g. Weitz et al 1986) had been proposed. "Personal selling is the only communication vehicle in which the marketing message can be adapted to the specific customer's needs and beliefs (Weitz et al. 1986, p.174)." Adaptive selling is defined as "the altering of sales behaviors during a customer interaction or across customer interactions based on perceived information about the nature of the selling situation" (Weitz et al., 1986, p. 175). Weitz et al. (1986) insisted on the importance to clarify the adaptive behavior of effective salespersons and to reveal dynamic nature of selling job.

An effort to measure the degree of adaptation has also been made. The ADAPTS scale was developed and its antecedents and consequences are investigated (Spiro and Weitz, 1990; Marks, Vorhies, and Badovick 1996; Robinson, Marshall, Moncrief and Laask 2002; Chankraberry, Brown, Widing, and Taylor 2004).

The stream of study was thought to be settled to the adaptive selling approach. But the focus of sales management is shifting from what is to be done at the business meeting to how to manage the whole relationships, which seems to coincide with the main stream of marketing, that is, relationship marketing.

In this relationship perspective, a salesperson is required to act as a relationship manager. The new trend of personal selling research is called relationship selling (Jolson 1997; Weitz and Bradford 1999). Paparoidamis and Guenzi (2009) define relationship selling strategy as a strategic approach developed by a seller willing to establish long-term and mutually profitable relationships with its customers. Adaptive selling is considered as important factor to improve relationship quality. Customer oriented selling (Saxe and Weitz 1982; Weitz 1978), another root of adaptive selling concept, is also considered as important factor to improve relationship quality (Schwepker 2003).

In the name of relationship selling, many studies have been done. For example, conflict management (Weitz and Bradford 1999; Bradford and Weitz 2005) is investigated as an inherent factor in relationship selling. Leader-member exchange is also investigated as an important factor to encourage relational behavior of salespersons (Paparoidamis and Guenzi 2009).

Unfortunately, however, research directly relating relationship selling behavior itself is lacking. Of cause, investigating the factor positively related to relationship selling behavior is important. But investigating the nature of relationship selling behavior itself is also important.

Adaptive selling behavior could be regarded as relationship selling behavior, because it is customer oriented. To gather information about variety of customer needs and to change sales behavior adapting to the needs could foster good relationship.

In our other research (Hosoi et al. 2011) the authors found that salesperson cognition might be skewed by their network. The adaptive selling approach or cognitive approach revealed effective salespersons (HP: high performer)'s behavior as a cognitive representation and then intended to transfer knowledge of HP to LP (low performer: not effective salespersons). But in case HP's cognition is skewed by their network, knowledge transfer might be harmful to LP. HP is well adapted to existing network. When network is changing, HP's cognition must be skewed

by their embedded network. Therefore, we should view buyer-seller relationships in a context of the network rather than in isolation.

A Concept of Network Bias of salespersons' cognition

As mentioned above, while a focus of personal selling studies shifts from influencing buyer behavior to managing buyer-seller relationship, little research has been done on the nature of buyer–seller relationship and what salespersons should do in the relationships.

In this paper, the authors will propose a framework for research directed toward increasing our understanding of a key aspect of relationship selling—prospecting. Looking at the network point of view, choosing a right prospect to link is an important first step of relationship selling.

A basic idea of social network theory is that whether actors are successful or not depends on their social network structures. According to the theory, salespersons' performance is also considered to depend on their business networks and their position in their networks. What is a network structure advantageous for salespersons to build? According to Burt (1992), Salespersons should get a position in a network where they can bridge structural holes (see Figure 1). A structural hole means a gap between two parties in a network. If an actor is a only person who bridges a structural hole in a network, he or she can gain competitive advantage. In Figure 1, YOU are an only person who can bridge all parties; and A and B cannot be connected to each other without YOU. YOU therefore are in the most advantageous position.

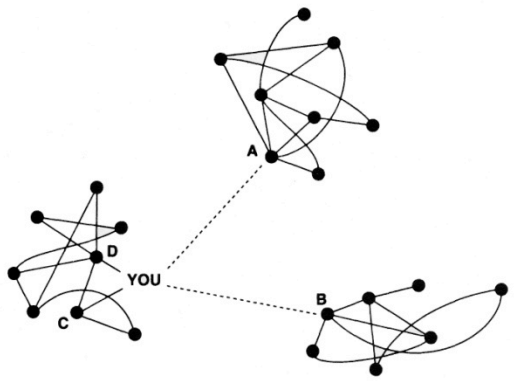

Figure 1 Structural holes and weak ties (Burt, 1992, p.27)

In Figure 1, links between YOU, A, and B , indicated by dashed lines, are weak ties (Granovetter 1973). The concept of a weak tie means a weak link between two nodes. Meanwhile, the concept of a structural hole means the gap between the nodes; and it can bring potential large benefits to an individual who bridges it.

YOU are assumed to have strongest power to control the network in Figure 1. The position occupied by YOU is the best position; the positions of A and B are the second best in this situation. YOU bridge two structural holes by two weak ties while each A or B bridges only one structural hole.

Social network theory shows a network position salesperson should take. According to Burt (1992), prime goals of the salespersons are to have a position to bridge structural holes. By doing so, salesperson should be able to be more powerful than others and to control information flows and resource flows in his or her network.

However, the theory does not tell us how salespersons take the position. Some studies address the issue of how salespersons should retain and manage their relationships. For example, Dhanaraj and Parkhe (2006) present the concept of network orchestration and the framework to explain how to manage network innovation. They claim that innovation appropriability in the

network is caused knowledge mobility and network stability and then caused innovation output of the network. Although some researchers like Dhanaraj and Parkhe (2006) focus on managing relationships, few studies address the issue of salespersons' building their networks. It has been said for years that salespersons are boundary spanners (Donnelly and Ivancevich 1975). Salespersons' important task is to connect people and organizations in the way they ought to be connected. Research in sales should therefore focus on building networks by salespersons. Of course, successful business networks are not built automatically. Our previous work indicated that salespersons' cognition was biased by their networks when they searched their customers and partners (Hosoi et al. 2011). We found that salespersons tended to attempt to connect easily customers who were in the center of their existing networks albeit salespersons should use their networks to bridge structural holes. The thought of relationship selling emphasizes retaining good relationships with existing customers. The more salespersons emphasize the relationships their existing customers, the more difficult it might be for salespersons to find more advantageous network structures social network theory indicates.

Table1 shows a classification of cognitive biases of salespersons due to their embedded networks when they look for the people to be linked. Each cell of the table represents a type of prospective customer classified by relationship history and network position of the customer. Vertical axis represents relationship history with the prospect, that is, whether the present prospective customer has the business connection with the seller in the past or not. Horizontal axis represents network position of the prospective customer, that is, whether leader or follower. In this way we can classify specific prospect into four types; Leader - Existing Customer (LE), Leader – New Customer (LN), Follower - Existing Customer (FE), Follower – New Customer (FN).

Table 1 Network Biases of Industrial Salespersons' Cognition

		Network Position of Prospect	
		Leader Customer	Follower Customer
Relationship History	Existing Customer	LE ENB LNB	FE ENB
	New Customer	LN LNB	FN

LE: Leader - Existing Customer FE: Follower - Existing Customer

LN: Leader – New Customer FN: Follower – New Customer

ENB: Existing Customer oriented Network Bias

LNB: Leader Customer oriented Network Bias

Existing customer oriented Network Bias (ENB)

According to the idea of relationship selling, most of salesperson is supposed to emphasize enhancing the relationships with their existing customers. If a salesperson has the tendency to emphasize existing customer, we call it existing customer oriented network bias (ENB). No companies are in isolation. So, emphasizing existing customer seems to be natural.

ENB is not always harmful. Important point is whether the relationship with existing customer is good or not, viewing from network point of view. If a salesperson has advantageous network structure with his/her existing customer, emphasizing existing relationship is good strategy for the salesperson. If he/she doesn't have such network, he/she should try to change his/her position by changing the network. Prospecting new customer and building relationship with them is an opportunity to change the network position. ENB might lose the important

opportunity.

Leader customer oriented Network Bias (LNB)

Regarding to the horizontal axis of Table 1, if a salesperson has the tendency to emphasize leader customer in an industry, we call it leader customer oriented network bias (LNB). LNB is caused by a network of whole industry rather than a network of an individual salesperson or an individual company. In almost all industry a network has been formed with a leader company at the top. Christensen (1997) called it value network. Of cause, in industrial setting, competent customer is seemed as a good partner. If a salesperson is looking for new customer and he/she has no constraint from old business network, he/she is likely to choose the highest competent customer, i.e. a leader company of the industry. Thus offers to start new relationship are concentrated to the leader company.

This phenomenon can be explained by the concept of preferential attachment in the network theory. Barabsi and Albert (1999) found that the network formed by two rules, growth and preferential attachment, became powered distribution, which was subjected to scale free distribution. In scale free network, a hub with a lot of bonds shortened distance between certain nodes (Albert, Jeong, and Barabasi, 1999). A scale free network characterized by growth and preferential attachment is similar to the phenomenon in the real world: the rich person became richer. Many salespersons are likely to try to connect with a person who is positioned at the center of an existing network, and then the existing network became bigger and stronger. In contrast, to connect with a person who is not at the top of the existing network does not seem to have advantages. This is the reason why LNB occurs.

Consequences of Network Bias of Industrial Salespersons' Performance

Network Bias and prospecting strategy

Network bias affects salespersons' behavior. Each cells of table 1 represents type of

prospective customers. We would like to call the decision on which prospective customer to sell as a prospecting strategy. The prospecting strategy is influenced by the network bias.

First, choice probability of each cell is influenced by network bias. Leader-Existing customer (LE) is most likely to choose because the cell is influenced by both of two network bias, Leader oriented network bias (LNB) and existing customer oriented network bias (ENB). The cell least likely chose is Follower-New customer (FN) because the cell is not influenced by any network biases. Follower-Existing customer (FE) and Leader-New customer (LN) have medium choice probability.

Proposition1: Choice probability of four cells in figure1 is as follows;

LE > FE, LN > FN

While choice probability of four cells varies, LE and LN could be regarded as same prospecting strategy because they have common orientation to a leader customer. We call LE and LN altogether as leader oriented prospecting strategy (LPS). Similarly, FE and FN are called altogether as follower oriented prospecting strategy (FPS).

Leader customer oriented network bias (LNB) could be positively correlated to LPS and negatively correlated to FPS. Existing customer oriented network bias (ENB) isn't correlated to any prospecting strategy by itself. But ENB has the moderating effects to correlation with prospecting strategies. If a salesperson has existing relationship with leader customer, he/she is likely to choose to continue to deal with the leader customer, that is, to choose LE. Similarly, if a salesperson has existing relationship with follower customer, he/she is likely to choose FE. In terms of prospecting strategies, ENB strengthen the positive relationship of LNB and LPS and weaken the negative relationship of LNB and FPS. As a result, FN, the most promising cell with a lot of opportunity to span structural hole, is hardly chosen.

Proposition2: LNB is positively related to LPS.

Proposition3: LNB is negatively related to FPS

Proposition4: ENB strengthen the positive relationship of LNB and LPS.

Proposition5: ENB weaken the negative relationship of LNB and FPS.

Prospecting strategy and salespersons' performance

Each prospective strategy has different effects on salespersons' effectiveness. LPS is a strategy which is oriented to the largest company in the industry. So, it could cause a large sales volume in a short term. In a long term, however, it isn't expected to cause a large sales volume. A leader company has a lot of business partners. It means that salespersons must compete with many rivals. Furthermore, LPS is not always expected to earn large revenue, because of the hard competition.

On the other hand, FPS, orienting to a follower company with smaller size than a leader company, is not positively related to large sales volume and large revenue of salespersons in short term. But FPS might have a benefit in a long run. Because follower company has motivation to compete with leader company, follower company might be willing to reorganize their value network. For leader company, reorganize their value network might lead to suicidal behavior. But for the follower company, it could lead to an opportunity to beat the leader. So, if reorganization of value network has happen centered on the salesperson and if the salesperson could get the ideal position spanning a structural hole in the reorganizing process, he/she could get large sales volume and revenue in long term.

Proposition6: LPS is positively related to financial performance in short run.

Proposition7: LPS is negatively related to financial performance in long run.

Proposition8: Basically, FPS is not related to salespersons' performance

Proposition9: If reorganization of value networks happens centered on the salespersons, FPS is positively related to financial performance in long run.

Conclusion

In this paper, we have discussed nature and consequences of the concept of network bias. In conclusion, again we would like to emphasize that the network bias and its consequences is inherent to the relationship selling. The more a salesperson appreciates the relationship with their customer, the more often bias and its consequence occur.

Despite the importance of the concept, the authors have just proposed a few hypothetical propositions. There are still many unanswered questions.

First of all, the existence of the network bias should be examined. If the network bias exists, choice probability of four cells in table 1 is not the same. As we mentioned as proposition 1, LE is most likely to choose, FN is least likely to choose, FE and LN are middle.

Consequences of the bias also should be examined. In this paper, we have discussed two prospecting strategies. Investigating actual salesperson's prospecting behavior in the situation that the salesperson started to sell innovative new product in industrial sales setting is the first step to examine the propositions in this paper.

Because network bias is a cognitive problem, the cognitive approach of sales management (Weitz et al. 1986) is supposed to be useful. The cognitive approach of sales management revealed effective salespersons (HP: high performer)'s behavior as a cognitive representation and then intended to transfer knowledge of HP to LP (low performer: not effective salespersons).

But knowledge transfer from HP to LP should be done in carefully. HP is well adapted to existing network. HP's cognition must be skewed by network bias. In other words, HP's knowledge is specific to a particular network. So, in case HP has network bias, knowledge transfer might be harmful to LP. To promote research on adaptive selling and relationship selling, cognitive bias of salespersons needs to be investigated further in future research.

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