Knowledge-based sales management strategy and the grafting metaphor: Implications for theory and practice

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A R T I C L E   I N F O

Article history:
Received 12 January 2009
Received in revised form 25 September 2009
Accepted 29 September 2009
Available online 18 January 2010

Keywords:
Knowledge grafting
Knowledge-based sales management
Metaphors
Theory development
Strategic normative imperatives

A B S T R A C T

An assessment of sales research reveals limited theoretical sophistication and grounding, less focus on intraorganizational issues, over emphasis on the micro (salesperson) versus the macro (sales function) aspects in sales management, and the criticality of knowledge to sales management. Although marketing literature draws on metaphors for theory development, there is very little sales management research that relies on metaphors for theory. In addition, reflecting the recent changes in the external environment, there have been several calls to research knowledge-based sales management. Therefore, this article explores knowledge grafting – a new theoretical metaphor – in the context of knowledge-based sales management. In doing so, first, we briefly overview the metaphor literature. Second, we introduce and evaluate the grafting metaphor. Third, we discuss the important issues of knowledge-based sales management. Fourth, we describe the knowledge grafting process and develop a knowledge grafting based conceptual framework in the context of sales management. Finally, we discuss the strategic normative imperatives for practice.

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1. Introduction

Sales management research suffers from a lack of focus on theory development. Given that the purpose of theory is to explain and predict phenomena (Hunt, 2002; Rudner, 1966), increased efforts at theory development in sales management research can have significant implications for sales management practice. Specifically, in recent times, there have been a few articles that assessed the state of sales research that (i) indicate that a majority of sales articles that appeared during the 1983–2006 period have limited theoretical sophistication and grounding and only 30 out of 1270 articles address intraorganizational issues (Plouffe, Williams, & Wachner, 2008), (ii) call for a change in the primary unit of analysis within sales research from the salesperson to the sales function (Williams & Plouffe, 2007), and (iii) note that sales organizations are evolving and application of specialized skills and knowledge are critical to sales management (Sheth & Sharma, 2008). Therefore, responding to these calls, this paper explicates the usefulness of metaphors for theory development and practice in sales management and focuses on a macro (sales function related), intraorganizational issue – knowledge-based sales management strategy. Specifically, using the knowledge grafting metaphor, this paper develops an empirically testable conceptual framework for knowledge-based sales management strategy and discusses strategic, normative imperatives for practice.

Marketing literature is rich with research explicating the usefulness of metaphors. For example, metaphors have been shown to be useful in the context of advertising (Ang & Lim, 2006; McQuarrie & Phillips, 2005), marketing communications (Bremer & Lee, 1997), marketing management (Hunt & Menon, 1995; Winsor, 1995), marketing research (Cornelissen, 2003), marketing science (Arndt, 1985), marketing theory construction (Zaltman, Lemasters, & Heffring, 1982), and sales message creation (Boozer, Wyld, & Grant, 1990). However, despite the extensive use of metaphors in theory development in marketing and business strategy, the full potential of metaphors and metaphoric transfer is yet unrealized (Hunt & Menon, 1995). Specifically, in the context of sales management, there is very little research that investigates metaphors and their usefulness for theory development and practice.

Although metaphor has evolved from being a strictly linguistic tool to a research tool that can spark inquiry, the sales management literature has not capitalized on the research potential of metaphors. Nevertheless, two questions outline the importance of metaphors in the context of sales management research. First, are metaphors useful in sales management? Madhavaram and McDonald (2009a) suggest that metaphors are useful at three levels: (1) creation and execution of sales messages, (2) motivation and encouragement of the sales force, and (3) development of organizational capabilities, structure, culture, policies, technologies, and training programs that, in turn, can result in effective and efficient sales management.
Second, do metaphors help in theory development in sales management? One metaphor that has made its way from marketing management literature to sales management literature – the relationship metaphor – has had a significant role in theory development in sales management literature. For example, there are several articles that show the usefulness of the relationship selling metaphor to sales management (e.g., Doyle & Roth, 1992; Frankwick, Porter, & Crosby, 2001; Jolson, 1997; Yoho, 1998). However, do metaphors have the potential to spark inquiry to develop new theories? In this article, reflecting the changes in the external environment, we pick an area of research that has been attracting increasing attention from researchers – the role of knowledge in sales management – to show that metaphors can be used to develop new theories. In the marketing strategy literature, researchers have long since recognized the role of knowledge as a potential source of competitive advantage (e.g., Glazer, 1991; Li & Calantone, 1998; Madhavan & Grover, 1998).

In the context of sales, though the importance of knowledge was recognized as early as the 1940s (e.g., Dawson, 1941), it is only in the last quarter century that there has been fervent research on the role of knowledge resulting in dozens of articles. However, with the exception of Arnett and Badrinarayanan (2005), none of the articles specifically addresses knowledge management in the sales context. In fact, five recent articles (Cron, Marshall, Singh, Spiro, & Sujan, 2005; Leigh & Marshall, 2001; Marshall & Michaels, 2001; Robertson, Dixon, & Curry, 2006; Sheth & Sharma, 2008) that focused on research opportunities, priorities, and agendas called for increased attention to investigating knowledge related issues in sales management. Therefore, in this article, we use a horticultural metaphor to develop a theoretical framework that can be tested in the sales management context. In doing so, first, we briefly overview the metaphors literature in the context of sales management. Second, we introduce and evaluate the grafting metaphor. Third, we review and discuss the concept of and issues related to knowledge-based sales management. Fourth, we develop a knowledge grafting based conceptual framework in the context of sales management that can be empirically tested. Fifth, we discuss strategic normative imperatives for practice. Finally, we conclude with a discussion of our paper’s contributions and a call for future research.

2. The metaphor literature — A review

Starting with Aristotle who more than 2000 years ago discussed the value of a good metaphor for selling an idea (Boozer et al., 1990), metaphors have been mostly discussed in the context of effective language use. As such, there is extensive research on metaphors in linguistics and psychology literatures (Bremer & Lee, 1997). Subsequently, metaphors started playing an important role in knowledge development by stimulating creativity through metaphoric transfers. That is, as metaphors have the potential to spark productive inquiry and direct researchers to explore links that would otherwise remain obscure (Cornelissen, 2005), they have become important for knowledge development. In fact, metaphors show increased salience in organization theory and they are contributing to theory development (Cornelissen, 2005). For example, Cox, Mann, and Samson (1997) use benchmarking as a metaphor to develop a conceptual model and propositions toward developing a theory of benchmarking. As metaphors made their way into science, they drew several criticisms. For example, Pinder and Bourgeois (1982) criticize metaphor for being inherently imprecise and ambiguous. That is, a concept that is applied in a figurative sense cannot be of any use to scientific investigation (Cornelissen, 2005). Although several definitions of metaphors exist, in this article, we use the definition proposed by Hunt and Menon (1995). For Hunt and Menon (1995, p.82), a metaphor “is a literally false, declarative assertion of existential equivalence that compares two concepts or things, where one concept, called the primary concept, is claimed to be another, the secondary concept.” Furthermore, following Boyd (1979), Hunt and Menon (1995) separate literary metaphors from theoretical (scientific) metaphors in marketing literature. While the literary metaphor’s sole task is to vividly, colorfully, and dramatically convey a message, a theoretical metaphor’s purpose is to encourage researchers to explore other literature for theories, propositions, and concepts that may prove fruitful. In the strategy literature, von Ghyczy (2003) similarly differentiates between rhetorical and cognitive metaphors, describing a rhetorical metaphor as a literary tool that pervades the business world and a cognitive metaphor as a less commonly employed tool that aids in discovery and learning. As Boyd (1979) notes, both kinds of metaphors can play significant roles in any discipline. Please note that some metaphors can be both literary (rhetorical) as well as theoretical (cognitive) metaphors. Many times, metaphors start as literary metaphors and evolve into theoretical metaphors.

Noting the importance of both literary and theoretical metaphors, Madhavaram and McDonald (2009a) (1) identify several metaphors that are relevant to sales management and (2) note that literary metaphors can help sales management in four ways. First, sales managers can use metaphors in the training and development of their salespeople. Second, sales managers can use metaphors to motivate salespeople. Third, sales managers can encourage their salespeople to use them in their interactions with buyers and make their communication more effective and efficient. Fourth, sales managers can use metaphors to create an environment that is conducive to salespeople to work together and help each other.

Within the sales literature, there are several researchers who have presented literary metaphors that can help sales managers with reference to sales messages. Boozer et al. (1990) note the importance of metaphors in the creation of sales messages and present war, game, family, pressure cooker, glue, and doormat as examples of metaphors used in sales. Further, Boozer et al. (1990) note that metaphors can be used to create sales messages that are concrete, concise, coherent, familiar, and novel. Similarly, Cummings (2005) observes that top businesses are including metaphors in their sales pitches and are building them into sales presentations to make a stronger impression with clients. Cummings (2005) gives metaphorical examples such as a packed stadium and a classroom that make sales presentations more efficient. On a similar note, Gitomer (2003), using music as a metaphor, urges salespeople to create sales music that the listener wants to hear.

Although literary metaphors are important for any discipline, often, they have a relatively short product life cycle (Hunt & Menon, 1995). On the other hand, theoretical metaphors can be used over an extended period of time. Furthermore, Hunt and Menon (1995) note that the major function of theoretical metaphors is to stimulate creativity that will lead to long-term, systematic, and programmatic research. The sales management literature has not fully utilized theoretical metaphors toward developing research. However, at least one of the theoretical metaphors has made its way from marketing management literature to sales management literature – the relationship metaphor. There are several articles that show the usefulness of the relationship selling metaphor to sales management (e.g., Doyle & Roth, 1992; Frankwick et al., 2001; Jolson, 1997; Yoho, 1998). Hunt and Menon (1995) evaluate the marriage (relationship) metaphor in terms of its source, ontology, concepts, theories, and values and conclude that such metaphors play a significant role in knowledge development. As evidenced by a plethora of empirical and conceptual articles that followed, this metaphor led to relationship marketing theory. Also, this metaphor led to several research articles that investigated relationship selling.

However, even in the case of the relationship metaphor, sales management researchers have not realized the full potential of this metaphor. Though there are several articles that investigate relationship selling that involves external relationships (between salespeople and customers), except for Yilmaz and Hunt (2001), not many
researchers have investigated the internal relationships between the firm and the salespeople and among the salespeople. In addition, Lissack (1997) introduces the concept of generative relationships, the potential of which is again not fully realized.

Furthermore, there are several theoretical metaphors that have immense potential in terms of their usefulness for sales management. For example, the metaphor “firm is an organism” can help sales managers in their specific strategies and tasks for different products. For example, the product life cycle (which itself is a metaphor) concept that originates from the “firm is an organism” metaphor is an extremely potent tool. Based on the different life cycle stages of different products, sales managers can devise specific sales plans for specific products. Similarly, sales managers can also use concepts such as intelligence deployment, mobilization, and preemptive strategies from the “war” metaphor. However, a detailed exposition of the usefulness of all relevant metaphors for sales management is beyond the scope of this article. Therefore, here, we introduce, develop, and explicate the grafting metaphor and apply it to knowledge-based sales management. Before we proceed with the discussion of the grafting metaphor and its usefulness, in the next section, we discuss knowledge-based sales management strategy.

3. Knowledge-based sales management

As the economy becomes even more knowledge intensive, knowledge will remain an important part of all organizational processes and activities. In fact, as McKee (1992) suggests, organizational learning may be the only competitive advantage open to a firm in the future. However, what does one mean by knowledge-based strategy? In the context of business strategy, the fundamental thesis of knowledge-based strategy is to achieve competitive advantage and, thereby, superior financial performance, firms should (1) systematically accumulate a storehouse of knowledge, and (2) systematically use that knowledge to guide innovation (Hunt & Madhavaram, 2006).

Three questions arise in the context of knowledge-based sales management research. First, what is the definition of sales management? There are numerous definitions of sales management in the extant literature. For example, Olson, Cravens, and Slater (2001, p.26) define sales management as “the process of formulating, implementing, and evaluating sales plans and monitoring the performance of the sales force.” This definition, though parsimonious, does not seem to be inclusive of all activities that come under sales management.

However, the long-standing definition provided by the American Marketing Association seems properly inclusive of all activities and processes that are relevant to sales management. The American Marketing Association (AMA) describes sales management as involving “three interrelating processes: (1) formulation of a strategic sales program; (2) implementation of the sales program; and (3) evaluation and control of sales force performance.”

Second, what constitutes the scope of knowledge-based sales management? Consistent with the AMA definition, based on the best practice research by the Chally Group (1998), Leigh and Marshall (2001) called on sales academics to pursue research on: (1) establishing a customer-centric culture; (2) market segmentation; (3) market adaptability; (4) information technology; (5) sales, service, and technical support systems; (6) customer feedback and satisfaction; and (7) selecting and developing sales personnel. Each of these seven categories has a knowledge component attached to it. We define knowledge-based sales management as the strategy of utilizing existing knowledge and acquiring new knowledge to gain competitive advantages through superior execution of the three sales management processes defined by the AMA. That is, as knowledge is heterogeneously distributed in the competitive environment, firms require knowledge with reference to each of the seven categories to remain competitive. On similar lines, Cron et al. (2005), Leigh and Marshall (2001), and Marshall and Michaels (2001) called for knowledge related sales management research.

Third, what kinds of sales related knowledge do firms require for their knowledge-based sales management strategy? A firm’s knowledge-based sales management should focus on the knowledge stocks that guide and inform the salespeople. Typical knowledge requirements of sales people include identification and understanding of customer needs, working in teams, using systems and technology, and/or using the company’s policies and procedures. In addition, for a sales force to be customer oriented, it also needs the knowledge to: (i) gather information about the customers through effective listening (Ramsey & Sohi, 1997); (ii) analyze and understand customer problems (Leong, Busch, & John, 1989); and (iii) tailor their offerings to customer needs (Saxe & Weitz, 1982). Furthermore, effective knowledge management can enhance customer-need-driven CRM (customer relationship management) strategies (Arnett & Badrinarayanan, 2005).

There are numerous research studies that address the issue of various types of knowledge that sales people require in order to be successful (e.g., Leigh, 1987; Szymanski, 1988). In addition, most research that studies sales training is essentially based on the knowledge requirements of the sales force. Roman, Ruiz, and Munuera (2002) note that the context of sales training tended to remain constant over time — focused mainly on the knowledge of the product, the market, the company and sales techniques (Chonko, Tanner, & Weeks, 1993).

Weitz, Sujan, and Sujan (1986) discuss knowledge of sales interactions and behaviors, and information acquisition skills as crucial capabilities that are needed to be effective at adaptive selling. On similar lines, Ryan and Weinberg (1981) note that the performance of a sales person can be viewed as a function of product knowledge, customer knowledge, knowledge of company policies and procedures, and interpersonal and communication skills.

Therefore, knowledge-based sales management requires that firms systematically accumulate and use a storehouse of knowledge that guides all activities and processes relevant to sales management.

4. The grafting metaphor

In this section, first, we provide a brief history of the grafting concept. Second, we propose knowledge grafting as a metaphor and evaluate it based on the dimensions proposed by Hunt and Menon (1995). Third, we discuss the usefulness of the knowledge grafting metaphor.

The source of the knowledge grafting metaphor is horticulture. Traditionally, in horticulture, grafting involves preparing and placing together plant parts so they may grow together (Garner, 1988). Lee and Sears (1994) suggest that grafting is a technique that makes it possible to add one variety of a tree to another. Spurgeon (1994) discusses grafting as a craft that helps in propagating superior trees. Grafting has proven to be an extremely useful in horticulture. For example, “grafting essentially saved European wine making: when the insect Dactylosphera vitifoliae devastated European grape-wine varieties over the course of the late 1800s and early 1900s, the varieties were saved by grafting them on to resistant rootstocks from the New World” (Kalanditis, 2004; p. 1059).

Eventually, the concept of grafting made its way to the organizational learning literature. Huber (1991) identifies grafting as one source of knowledge acquisition that merits further study. He goes on to describe grafting as acquiring knowledge by hiring individuals, groups, and entire organizations that posses the desired knowledge. Sometimes, this grafting process is achieved on a large scale through joint ventures (Lyles, 1988), or through acquisitions and mergers (Jemison & Sitkin, 1986) with other organizations. At other times, the grafting is on a much smaller scale, such as hiring an individual, or group of individuals, who possesses the knowledge currently lacking
in the organization. Huber’s (1991) conceptualization of grafting involves organizations increasing their store of knowledge by formally acquiring employees, firms, and/or by developing long-term alliances with other organizations that possesses information not previously available within the organization. Furthermore, Huber (1991) predicts that grafting will become a more frequently used approach for organizations to acquire quickly knowledge that is new to them. This acquisition of knowledge is often faster than learning by experience and more complete than learning through imitation (Huber, 1991; Osland & Yapräk, 1995).

Although Huber’s (1991) concept of grafting is quite significant, it is somewhat limiting in terms of its conceptualization. Huber’s (1991) concept of grafting concerns the acquisition of knowledge not previously possessed by firms. However, the concept of grafting in horticulture concerns a process that, in addition to acquisition, focuses on *union*, *synergistic growth*, and *superior outcomes*. That is, grafting in horticulture is often done in the quest for superior outcomes and acquisition is only the beginning. The graft must be carefully prepared, joined and nurtured to be effective. Hence, the *acquisition* of scions and other entities necessary for the graft, the *union* of the grafted entities, and the subsequent *synergistic growth* that, in turn, results in *superior outcomes* come under the rubric of grafting. Paralleling this grafting process, knowledge acquisition, knowledge integration, and synergistic knowledge growth that, in turn, results in superior knowledge outcomes come under the rubric of knowledge grafting. In this article, using knowledge grafting as a metaphor, we focus on the explicating knowledge grafting further in the context of sales management.

Drawing from the concept of grafting from horticulture, we define knowledge grafting as “bringing one or more individuals, groups, or organizations together for the purpose of *integrating* the new and existing knowledge, in order to produce *superior* values or outcomes through *synergistic knowledge growth*.” We conceptualize knowledge grafting beyond mere acquisition of externally developed knowledge. We propose that grafting also involves what one does before, during, and after the acquisition of externally developed knowledge, to ensure that the organization becomes more effective and/or efficient, and perhaps, gains competitive advantages. We further contend that that the organization’s overall emphasis on, and regular/continuing efforts toward, knowledge grafting could potentially provide sustainable competitive advantages.

### 4.1. Usefulness of the knowledge grafting metaphor

For Hunt and Menon (1995), the value of a metaphor depends on the richness and appropriateness of the source’s ontology, concepts, theories and values. Therefore, in order to evaluate metaphors, Hunt and Menon (1995) provide ontology, concepts, theories, and value systems as the criteria. First, the ontology of a metaphor refers to the entities that are presumed to exist within the metaphorical structure. It is important to systematically and comprehensively evaluate the ontological structure of the metaphor for theory development because developing an understanding of the interrelationships among the entities and concepts undergirding the metaphorical system can suggest new linkages and implications and, thereby, stimulate metaphoric creativity. In addition, it is also important to examine equivalent entities in sales management that parallel the metaphor’s entities for the purposes of metaphoric transfer. For example, “scions” could be new employees that sales management could be hiring and “glue” could be organizational culture.

Second, concepts are the major organizing ideas that are borrowed in a metaphoric transfer and, together with the entities, provide the underpinning for theory development. Furthermore, the *proportion of concepts that are relevant and the substantiveness of the concepts are critical to metaphoric transfer*. Concepts identified in Table 1 such as growth, harvest, nurture, preparation, propagation, substitution, timing, and union can be very useful for sales management and should be investigated. For example, new recruits should be nurtured through formal and informal induction and training programs. As Edmondson (2006, p75–76) notes, all the new hires of BMW “learn about 1959, when BMW nearly went bankrupt. Its recovery remains the centerpiece of company lore, inspiring deep commitment to innovation ... the story of 1959 is told and retold at each orientation of new plant workers.” This, coupled with organizational policies, profit sharing, and a drive for innovation resulted in “happy workers and better cars.” Later in this paper, we use these concepts in describing the knowledge grafting process and developing the conceptual framework.

Third, for metaphoric transfer to be rich, the source discipline should have a large body of models and theories that can give managerial guidance. There are several models and theories in grafting that can be useful for sales management. Potentially, a new metaphor offers novel, fresh insights into patterns of interrelationships among sales management phenomena that are unavailable within extant sales management frameworks. For example, based on theories of approach grafting and grafting with detached scions, Madhavaram and McDonald (2004) provide a typology of knowledge grafting based on industry and product characteristics that can help with sales management. Fourth, a metaphor’s value system includes its underlying goals, motivations, objectives, ideals, aspirations, and ethics. The metaphor’s value system guides theory and research in the adopting discipline. Therefore, this article provides a description of the knowledge grafting process (Fig. 1) and then develops a theoretical framework for knowledge-based sales management (Fig. 2).

### 4.2. The knowledge grafting process

How does a firm go about knowledge grafting? Or what does a typical knowledge grafting process look like? Here, for illustrative

<table>
<thead>
<tr>
<th>Dimensions of metaphoric transfer</th>
<th>Source: horticulture</th>
<th>Selected citations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong></td>
<td>Buds, fruits, fungicides, glue, grafting knives, insecticides, process, roots, scion, stock, tape, trees, vegetables, and wax</td>
<td>Garner (1988)</td>
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<tr>
<td></td>
<td>Grafting</td>
<td>Gulen, Celik, Polak, and Eris (2005)</td>
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<td>Jung Myoung Lee (2003)</td>
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<td>Rothenberger and Starbuck (2006)</td>
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<td></td>
<td></td>
<td>Taylor (1962)</td>
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<td><strong>Theories</strong></td>
<td>Approach grafting</td>
<td>Brennan (2004)</td>
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<td></td>
<td>Cleft grafting</td>
<td>Fahey (2004)</td>
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<td></td>
<td>Grafting with detached scions</td>
<td>Garner (1988)</td>
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<td></td>
<td>Micro-grafting</td>
<td>Onay et al. (2003)</td>
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<td></td>
<td>Theory of grafting</td>
<td>Rothenberger and Starbuck (2006)</td>
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<td>Taylor (1962)</td>
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<td><strong>Values</strong></td>
<td>Adaptability</td>
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<td>Compatibility</td>
<td>Garner (1988)</td>
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<td></td>
<td>Customization</td>
<td>Gulen, Celik, Polak, and Eris (2005)</td>
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<td></td>
<td>Effectiveness</td>
<td>Hinkley (2004)</td>
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<td>Efficiency</td>
<td>Pedersen (2005, 2006)</td>
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<td>Invigoration</td>
<td>Pina and Errea (2005)</td>
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<td>Patience</td>
<td>Taylor (1962)</td>
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<td>Structure</td>
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<td>Superior outcomes</td>
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<td>Synergistic growth</td>
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<td>Well-being</td>
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Source: Madhavaram and McDonald (2009b).

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Table 1: The grafting metaphor — an evaluation.
purposes, we briefly describe the knowledge grafting process. Drawing from the grafting metaphor and the concepts such as preparation, nurture, timing, union, growth, and harvest identified in Table 1, firms adopting knowledge grafting should, first, make preparations for knowledge grafts. Sometimes, for example, firms could hire new employees with specific knowledge to give impetus to firm performance. In such cases, the firm could hold orientations for the new employees and let the current employees aware of the relevant knowledge and competences of incoming employees. This could prepare the employees for the impending changes that the firm could experience. Here, the timing of the knowledge graft is critical as bringing in new employees with new knowledge should be done keeping the organizational environment and employees’ mindsets in perspective. Second, firms should implement formal and informal knowledge integration processes. This could involve facilitating formal and informal interactions that could lead to the integration of the knowledge of new employees and current employees. Third, firms should weed out dysfunctional knowledge grafts and provide support for functional grafts. That is, if a new senior manager, though extremely knowledgeable, is having trouble adjusting to work with current employees and is proving ineffective, it may be better for the firm to discontinue the graft. Alternatively, if the graft is really working and the new senior manager is forging great relationships with the current employees, the graft should be provided further support. In addition, if the complexity of the knowledge graft is high, nurturing the graft for a longer duration could be critical to the success.

Fourth, firms should also look at the organizational growth and enumerate the knowledge outcomes that result from the knowledge grafts. At times, knowledge grafts could result in new organizational policies or new ways of managing customer relationships. In horticulture, the outcomes are often better fruit or better flowers. However, not all outcomes of horticultural grafts can be positive. For example, a graft could result in bigger fruit that does not taste well. Therefore, fifth, assessment of knowledge outcomes should be carried out to ascertain the successes or failures of knowledge grafts. Sixth, specific guidelines should be developed for future grafts and, seventh, plans should be made for future knowledge grafts. This knowledge grafting process should be continuous. That is, given that knowledge can be a fundamental source of competitive advantage, knowledge grafting should be considered an ongoing process that can help in developing and sustaining competitive advantage(s).

5. A knowledge grafting framework for sales management

How useful is the grafting metaphor for knowledge-based sales management? As Hunt and Menon (1995) note, metaphors can play an important role in knowledge development by stimulating creativity through metaphoric transfer. As per Huber’s (1991) conceptualization, grafting is one way to acquire knowledge. Although there is abundant research on knowledge acquisition, none of it involves any metaphoric transfer from horticulture’s grafting. Therefore, in this article, using the proposed metaphor, we
develop a conceptual framework for knowledge-based sales management that can be empirically tested.

As shown in Fig. 1, our conceptualization of knowledge grafting focuses on a process that involves knowledge acquisition, knowledge integration, and synergistic knowledge growth. While there are several research articles on knowledge acquisition, knowledge integration in general, the research on the same in the sales context is sporadic (e.g., Leach & Liu, 2003; Yli-Renko, Autio, & Sapienza, 2001). Furthermore, there is very little research on the topic of synergistic knowledge growth (e.g., Leach & Liu, 2003). After knowledge is acquired and integrated with the existing knowledge, firms should foster synergistic knowledge growth. For example, if a firm employs an individual as part of its knowledge acquisition and trains the employee so that knowledge integration takes place then this process should result in the creation of new knowledge that is synergistic. Leach and Liu (2003) suggest that such synergistic growth could be captured in employees' behavior change. Next, using the metaphorical transfer, we propose a few exemplar antecedents and potential outcomes of the knowledge grafting process for knowledge-based sales management. Please note that antecedents and consequences that we propose are not exhaustive.

5.1. Top management support and organizational policies

For Shapiro, Slywotzky, and Doyle (1994), sales is a board room topic and should not be managed by short-term oriented and narrow perspective executives. The knowledge grafting process that is proposed in this article has strategic implications for sales management and, hence, could demand considerable resource commitment from the firm. Concepts such as recruiting, preparing, timing, placement, and nurturing suggest that support is essential for successful grafting. By supporting knowledge grafting, top management can strive to achieve competitive advantage by fostering knowledge-based sales management. For example, Sugianto (2008) notes that top management support was critical to the success of a firm that merged two different operational activities in early 2006 and doubled the divisional profit in 2007. In addition to top management support, organizational policies can help the knowledge grafting process. For example, in BMW, organizational policies force managers to work closely with subordinates and peers to learn the ropes and produce superior outcomes (Edmondson, 2006). Bellizzi and Hasty (2001) suggest that organizational policies can impact the knowledge grafting process. Specifically, Bellizzi and Hasty (2001) note that clear policy statements can positively affect the behaviors of sales managers. Parallels can be drawn between grafting concepts such as fungicides, glue, insecticides, tape, and wax and organizational policies. While fungicides and insecticides could parallel organizational policies that control unproductive knowledge growth, glue, tape, and wax could parallel policies that facilitate useful knowledge. Therefore, we propose that:

P1. Top management support positively influences the knowledge grafting process.

P2. Organizational policies positively influence the knowledge grafting process.

5.2. Learning orientation

Learning orientation often reflects a set of knowledge-questioning values (Sinkula, Baker, & Noordewier, 1997). Baker and Sinkula (1999) conceptualize learning orientation as a set of values that influence the degree to which an organization is satisfied with its theories in use (Argyris & Schön, 1978), mental models (De Geus, 1988), and dominant logic which may or may not have their base in the market. Questioning long-standing, established way of doing things is at the heart of the grafting (Taylor, 1962). In the context of sales management, Pelham (2006) and Sujan, Weitz, and Kumar (1994) have highlighted the benefits of learning orientation. In addition, Park and Holloway (2003) find that learning orientation positively influences sales management in developing relevant knowledge structures. Furthermore, a learning orientation encourages “learning to forget” or abandon managerial frames that bind individuals to an established way of doing things. Hence, by encouraging firms to unlearn obsolete or soon to be obsolete organizational knowledge and norms, learning orientation facilitates organizational learning that may lead to changes in knowledge stocks. Such an orientation encourages values associated with commitment to learning, open-mindedness, and shared vision. Therefore, we propose that:

P3. Learning orientation positively influences the knowledge grafting process.

5.3. Knowledge infrastructure capability

This capability consists of three key infrastructures, namely technical, structural, and cultural, those that enable the maximization of social capital, “the sum total of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by a social unit” (Gold, Malhotra, & Segars, 2001; p. 187). There are three functions of the key infrastructures: (1) the technology infrastructure helps making available and integrating the previously fragmented information and knowledge through the linkage of information and communication system in an organization; (2) organizational structure is important in leveraging technological architecture and can encourage collaboration and sharing of knowledge across internal organizational boundaries; and (3) organizational culture, perhaps the most significant factor, helps in managing the firm’s knowledge more effectively. Specifically, Chan and Chao (2008) note that new knowledge can be effectively developed through – the connections and interactions of people, networks, and norms – knowledge infrastructure capability. Hence, organizational knowledge infrastructure that encourages employee interaction and collaboration is extremely important for an organization to integrate and generate new knowledge. Therefore, we propose that:

P4. Knowledge infrastructure capability positively influences the knowledge grafting process.

5.4. Training and motivational programs

In one of the most influential sales articles of the 20th century, Churchill, Ford, Hartley, and Walker (1985) found, through a meta-analysis of 393 research studies and 36 dissertations, that training and motivational programs are very significant to sales performance. Three decades later, Cron et al. (2005) recommend a knowledge, skills, and ability (KSA) approach to training, development, and selection of salespeople. According to Watson (2006), the CEO of Fields Electrical Sales, product training programs can be extremely powerful in motivating the sales force in building solid customer relationships. Such training programs can empower the sales management team through increased understanding of customers and their needs, higher levels of technical proficiency with product lines, and development of capabilities for developing long-term relationships with customers. Therefore, training and motivational programs customized for relevant knowledge grafts can yield similar results. Again, grafting concepts such as nurture, placement, preparation, and timing and grafting theories such as approach grafting and grafting with detached scions (Madhavaram & McDonald, 2004) can be very useful. Specifically, Garner (1988, p. 130) claims that, “all grafting naturally falls under two heads: (1) grafting by approach, in which scion and stock are not, or only in part, severed from the parent
plant until a union is affected, and (2) grafting with detached scions."
For example, the scion in knowledge grafting could be the individual who carries the desired knowledge, and the stock could be the organization that hires that individual. Therefore, we propose that:

P5. Training and motivational programs positively influence the knowledge grafting process.

5.5. Superior knowledge outcomes

The value system of the grafting metaphor suggests several potential outcomes of the knowledge grafting process (please see Table 1). There could be several equivalent entities that can be useful in the context of sales management. Here, we focus on five: new organizational routines, new market offerings, customer relations, sales management effectiveness, and sales management efficiency.

First, as Pissano (1994) suggests organizational processes can lead to the creation of new knowledge. Furthermore, going back to Schumpeter (1934), organizational learning is result of the integration of new and existing knowledge. On similar lines, the knowledge grafting process could result in new organizational routines. As Nelson and Winter (1982) note, organizational routines are basic components of organizational behavior and repositories of organizational capabilities. Subsequently, Becker, Lazaric, Nelson, and Winter (2005) suggest that the concept of organizational routines can be used to understand organizational change. Therefore, if the knowledge grafting process brings about positive organizational changes, they can be captured in organizational routines. For example, Facen and White (2007) suggest that knowledge grafting could potentially result in new sales practices. The knowledge grafting process proposed in this article could result in ‘learning-before-doing,’ leading to new sales management related organizational routines. Such firms could potentially stay ahead of all other firms that traditionally rely on ‘learning-by-doing.’ Therefore, we propose that:

P6. The knowledge grafting process positively influences new organizational routines.

Second, there is overwhelming evidence that suggests knowledge, knowledge integration, and synergistic knowledge growth positively influence new market offerings (e.g., Yang, 2005; Yli-Renko et al., 2001). For Becker, Salvatore, and Zirpoli (2005), new knowledge can bring about profound changes in the organization, including problem solving, and consequently, result in improvements in new product development performance. Even in the context of sales management, the involvement of salespeople in new product development and product modification is fairly established (e.g., Pelham, 2006). Specifically, in the context of high technology firms, sales force, through better grasp of customer need and wants, can strongly influence new product development efforts (Petersen, 1997). In addition, Cooper and Kleinschmidt (1991) use new product processes at IBM, 3-M, General Motors, Northern Telecom, and Emerson Electric, and note that formal but flexible new product development processes and cross-functional teams are critical to success. Therefore, we propose that:

P7. The knowledge grafting process positively influences the development of new market offerings.

Third, Arnett and Badrinarayanan (2005) note that the firm’s ability to develop, disseminate, and apply knowledge is an important component of the firm’s customer-need-driven CRM strategy. For Coltman, Divenny, and Midgley (2001, p.18), “companies that proactively respond to customers before they demand responsiveness show not just greater concern for their customers’ welfare but sophistication in their understanding of basic customer needs and the ability to align their company’s operations to these in advance.” The knowledge grafting process of acquisition, integration, and synergistic growth can potentially help firms develop such abilities that help them in customer relationship management. For Dickson, Lassar, Hunter, and Chakravorti (2009), identifying, recruiting, and training process thinking excellence is first priority in sales and customer relationship management improvement. Consequently, “Senior sales management should hire managers, consultants, and employees who are superior process thinkers and thus will embed customer relationship best practice processes up and down and across their organization” (Dickson et al., 2009; p.120) Therefore, we propose that:

P8. The knowledge grafting process positively influences the development of profitable customer relations.

Finally, the extant literature has shown that superior knowledge often results in effective (e.g., Pelham, 2006; Sujan et al., 1994; Weitz et al., 1986) and efficient (e.g., Yli-Renko et al., 2001) sales management. The process of knowledge grafting could potentially, through acquisition, integration, and synergistic growth, develop newer and better ways to train people, to develop systems that cut costs, to sell, and/or to manage salespeople. Therefore, we propose that:

P9. The knowledge grafting process positively influences sales management effectiveness.

P10. The knowledge grafting process positively influences sales management efficiency.

Next, based on the knowledge grafting metaphor and the conceptual framework, we propose a set of normative, strategic imperatives for knowledge-based sales management.

6. Normative, strategic imperatives for knowledge-based sales management

Following the horticultural metaphor, the knowledge grafting process, and our proposed conceptual framework, we recommend six steps that firms could follow to implement the knowledge grafting process.

First, firms need to establish specific objectives and knowledge outcomes that they desire from the knowledge grafting process. Here, we provide a few sales management related objectives that organizations could potentially achieve by engaging in knowledge grafting: (1) to propagate or to assist in propagating knowledge outcomes (e.g., new sales approaches and new market offerings) not otherwise conveniently developed; (2) to substitute one part of a body of knowledge for another part (e.g., the ineffectiveness of existing sales employees or business units could be overcome by substituting new sales employees or business units with new knowledge); (3) to join bodies of knowledge each selected for special properties such as adaptability to special situations (e.g., bringing together a team of individuals or business units with unique knowledge to achieve efficiency and/or effectiveness in sales); (4) to repair damage, to overcome incompatibility, and invigorate weak sales organizations (e.g., if an organization has become weak or has been damaged because of incompatibility between its knowledge and its environment, grafting new knowledge could help the organization); (5) to enable an organization to support one or more strategic business units with new knowledge (e.g., by continuously grafting new knowledge either from their own other strategic business units or from outside organizations, organizations could strengthen the support for their strategic business units); and (6) to elucidate/explicate specific problems of structure, growth, and well-being (e.g., by grafting the knowledge of foreign nationals and/or consultants on customers, competitors, suppliers, cultural values, public policy, and politics, firms can explore specific problems and grow beyond their own borders). By grafting knowledge that facilitates the sales organization to be continuously learning oriented, organizations can potentially achieve superior knowledge outcomes. Therefore, before firms think about
knowledge grafting, firms should also develop a set of knowledge outcomes to be achieved through the graft.

Second, once the specific objectives and desired outcomes of the knowledge graft are determined, firms should actively search for entities that possess the requisite knowledge. These entities could be individuals or groups from outside of the firm or from other strategic business units within the firm, or other firms. Sometimes, employee belonging to the same firm working for another strategic business unit can possess the requisite knowledge. For example, if a sales manager of a particular product category has been exemplary in improving the morale of his subordinates and in increasing the sales, that sales manager could be brought in to achieve similar things for another product category.

Third, firms should always check for the compatibility of the knowledge being grafted with the existing knowledge and the corresponding objectives (superior knowledge such as better policies, new sales know-how, and/or innovative products). Incompatibility may lead to a break in the development of the union and hence, to a failed graft (Pedersen, 2005). For example, in an organizational context, if compatibility is not ensured with reference to hiring a new vice president for the sales division, the vice president may leave after a few years or the employees may leave because of him/her. Such a scenario, in addition to the failure to achieve the desired, superior outcomes, could potentially lead to loss of valuable time and sales.

Fourth, organizations should make efforts to facilitate the union of the graft before, during, and after the graft. That is, firms should prepare itself and the incoming, knowledge-bearing entity for the union. Once the firm achieves the union, all efforts should be made to ensure that the union results in the desired outcomes for the firm. If a firm either hires a group of new employees or enters into an alliance with another firm with the objective entering a new market, the firm should familiarize the new employees or partner firms through induction programs and training/education sessions. Furthermore, firms could facilitate the union through the development of new organizational policies. Also, sufficient time and resources should be devoted toward achieving the synergistic outcomes of the union.

Fifth, firms should continuously check for symptoms of abnormalities in the union of graft. For example, once an organization brings in a group of new employees with new knowledge to revitalize one of its strategic business units, it should continuously check for abnormalities in terms of decreased organizational commitment, decreased job satisfaction, increased conflicts, increased stress levels, and/or increased employee turnover among other things. However, early observations may not always correlate with long-term graft survival (Andrews & Marquez, 1993). On the other hand, sometimes it may take years before symptoms of abnormalities become visible (Gulen, Celik, Polak, & Eris, 2005). In organizational contexts, this is a possibility in large organizations. Some stresses and conflicts may be productive and others may not manifest for a long time. Therefore, organizations should be careful in terms of observing symptoms of abnormalities and the interpretation of such abnormalities.

Sixth, organizations should analyze the success of the graft in terms of whether the desired objectives have been achieved or not. If the desired knowledge outcomes are not accomplished, organizations should check whether further grafting is required. Sometimes, more entities with new knowledge may need to be grafted. Other times, one entity may have to be removed and another one grafted on to the organization. Firms should follow these six steps to achieve desired performance using their knowledge-based sales management strategy.

7. Conclusion

This article makes several contributions to the sales management literature. First, a hitherto under researched area of research for sales management is addressed. Second, in addition to the discussion of knowledge-based sales management, different kinds of knowledge that are required for sales management are identified and discussed. Third, knowledge grafting is introduced, evaluated, and developed as a theoretical metaphor. In doing so, (1) grafting metaphor is evaluated according to the criteria set forth by Hunt and Menon (1995), (2) knowledge grafting is defined and differentiated from articulating grafting as a mere knowledge acquisition concept, (3) the knowledge grafting process is described using a figure, and (4) an empirically testable, new theoretical framework is proposed. Fourth, five potential antecedents and five potential consequences of the knowledge grafting process are presented. Finally, based on the knowledge grafting metaphor and the proposed conceptual framework, six normative imperatives for knowledge-based sales management are provided. Theoretical metaphors are important for theory construction and knowledge development. Through “metaphoric transfers,” metaphors can lead to new discoveries. For example, Madhavaram and McDonald (2004) provide a typology of knowledge grafting based on industry and product characteristics that can help with sales management. There is much left to be done to fully realize the potential of the knowledge grafting metaphor. For example, researchers could work on (1) a comprehensive list of entities, concepts, theories, and values, (2) developing a more exhaustive list of antecedents and consequences of the knowledge grafting process, and (3) investigating all the equivalent entities, concepts, theories, and values in the context of sales management.

In addition, it is important to investigate how the knowledge grafting metaphor can be explained by both the comparison model and as well as the domains-interaction model that were developed in the metaphor literature. While comparison model, historically, has been the traditional model that emphasizes the similarities required for metaphor’s comprehension, the domains-interaction model goes beyond analogy and goes on to emergent meanings. Furthermore, the measurement of knowledge grafting could prove beneficial for future research. As conceptualized in this paper, knowledge grafting can be measured as a process variable that involves knowledge acquisition, knowledge integration, and synergistic knowledge growth. However, researchers could also look at measuring knowledge grafting as higher-order construct.

Overall, more scholarly research is warranted in the domain of sales management by drawing from the other fields on metaphor-based research. Specifically, future research should focus on engaging in theory development with reference to knowledge grafting in the context of sales management research and empirically investigating the theories developed through metaphoric transfers. In conclusion, through its implications for researchers and practitioners, we hope this article acts a catalyst for sales management researchers to investigate knowledge-based sales management and metaphors in general and knowledge grafting metaphor in particular.

References


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