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Salesperson competitive intelligence and performance: The role of product knowledge and sales force automation usage

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ABSTRACT

This research models and tests the relationship between a salesperson's product knowledge, competitive intelligence behaviors (SCIB), and performance. Moreover, the research examines how a salesperson's use of a sales force automation (SFA) system influences the knowledge–SCIB–performance relationship. Our model and empirical evidence suggest that a salesperson's product knowledge influences performance indirectly through SCIB, and that this indirect influence is moderated by salesperson SFA use. Results show that the indirect positive influence of salesperson product knowledge on salesperson performance through SCIB is attenuated as SFA use increases, and enhanced when SFA use decreases. Theoretical and managerial implications are presented, followed by a discussion of limitations and future research.

1. Introduction

> "By the word intelligence we mean all the information we have about the enemy and his country, that is, the basis for our own plans and actions. If we consider for a moment the nature of this information, how unreliable and variable it is, we soon get a feel for how dangerous the edifice of war is and how easily it can collapse, burying us under its rubble."
> [Carl von Clausewitz (1852), Prussian General, Vom Kriege [On war].]

> "Now the reason the enlightened prince and the wise general conquer the enemy whenever they move, and their achievements surpass those of ordinary men, is foreknowledge".
> [Sun Tzu (1963), *The art of war*.]

In competitive markets, groups of value-creating organizations coexist "in a state of vigorous and creative tension with one another, each contributing to economic progress in different ways" (Ghoshal et al., 2000). In these markets, salespersons are often the ultimate conveyers of each organization's value proposition. The vigorous tension among competitors requires salespersons to make sense of various forms and sources of knowledge in order to successfully meet their customers' and their organizations' demands. However, mere attainment of knowledge is not enough. Left unused, it is merely a stockpile of intellectual capital. A salesperson must continually and capably utilize the sum of competitive knowledge available to them to turn those stocks of intellectual capital into a competitive advantage (Nahapiet & Ghoshal, 1998; Spender, 1996; Subramaniam & Youndt, 2005).

Rapp et al. (2011) refer to salesperson competitive intelligence as "individual-level knowledge about competitors and the competitive environment, that can be used tactically to aid in enhancing salesperson performance". In this paper, we focus on the competitive intelligence behaviors of salespersons, and conceptualize salesperson competitive intelligence behaviors (SCIB) as the salesperson's gathering, organization, and utilization of competitive intelligence. Practitioners and academic researchers tend to agree that SCIBs can greatly enhance organizational-level competitive intelligence efforts (e.g., Glitman, 2007; Le Bon & Merunka, 2006; Liu & Comer, 2007), yet we know relatively little about how SCIBs influence individual-level performance (Rapp et al., 2011).

While research is scant on the role of SCIB on salesperson performance, several studies examine salespersons' behaviors and influences related gathering and disseminating competitive intelligence for their organizations (Le Bon & Merunka, 2006; Le Meunier-FitzHugh & Piercy, 2006; Pass et al., 2004). For example, research explores how salespersons influence firm performance by coordinating information with marketing (Homburg et al., 2008), coping with diverse social environments (Verbeke et al., 2008), adapting sales processes (Franke & Park, 2006;

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Weitz et al., 1986), and making sense of diverse cognitive and emotional cues (Giacobbe et al., 2006). In this research, we extend extant research on salesperson competitive intelligence behaviors by investigating individual-level drivers and outcomes of SCIB. In doing so, we explain the process by which salespersons constantly update their understanding about their competitive environment to avoid becoming obsolete (Jones et al., 2004).

We draw on the cognitive selling paradigm (e.g., Porter & Inks, 2000; Sujan et al., 1994; Weitz et al., 1986) to develop a knowledge–behavior–performance framework for understanding SCIB and its role in salesperson performance. Moreover, we recognize that organizations increasingly invest in sales force automation (SFA) systems to integrate various knowledge reservoirs and enhance sales force performance (Ahearne et al., 2008; Honeycutt, 2005; Speier & Venkatesh, 2002); thereby, we theorize and empirically test the influence of SFA use on the knowledge–behavior–performance framework. Essentially, individual-level knowledge (such as product knowledge) and organizational-level knowledge (which can be accessed through SFA systems) are specific forms of intellectual capital (Nahapiet & Ghoshal, 1998; Spender, 1996; Subramaniam & Youndt, 2005). Accordingly, we investigate whether SFA use enhances or attenuates the influence that individual-level product knowledge has on SCIB and salesperson performance.

We proceed, first, with brief reviews of the literature related to competitive intelligence and SFA use. Then, we present our model comprising relationships among salesperson product knowledge, SCIB, and salesperson performance and discuss the potential moderating effects of salesperson SFA use. Following this, we explain our methodology and present the results of our study of a business-to-business sales force operating in the medical devices industry. Then, we discuss our results and present both theoretical and managerial implications. Finally, we present the limitations of our research and opportunities for future research.

2. Literature review

2.1. Competitive intelligence

In general, competitive intelligence (CI) includes information collected on many actors and situations relevant to a competitive landscape, such as information about competitors, customers, suppliers, and relevant technologies (Dishman & Calof, 2008). Competitive intelligence behaviors refer to how persons or organizations gather, organize, and utilize this information (Kahaner, 1997). At an organizational level, CI behaviors represent a spectrum of activities pertaining to making sense of the business environment and using this information to achieve company goals (Fleisher et al., 2008; Kahaner, 1996, 1997; Rothberg & Erickson, 2005). Following this stream of research in the organizational-level CI literature and individual-level salesperson CI (e.g., Rapp et al., 2011), we define SCIB as the gathering, organization, and utilization of individual-level knowledge about competitors and the competitive environment.

Extant research has investigated salespersons' actions related to the utilization of CI (Fleisher et al., 2008; Kahaner, 1996, 1997; Rothberg & Erickson, 2005). As a boundary spanner, a salesperson's value to a company is in part tied to his ability to support the organization's overall "outside-in" CI capabilities (Day, 1994a). A salesperson's "outside-in" CI behaviors can enable organizations to "connect the processes that define the other organizational capabilities to the external environment" (Day, 1994b; p. 41). In this manner, SCIB can help organizational performance. SCIBs can also be viewed within the broader context of market orientation (e.g., Day, 1994a; Kohli & Jaworski, 1990; Narver & Slater, 1990). Competitive intelligence is a key tenet of market orientation, viz. customer and competitor orientation (Kohli & Jaworski, 1990; Narver & Slater, 1990), and intelligence behaviors are an integral part of strategic marketing for organizations (Jaworski et al., 2002; Slater & Narver, 2000).

2.2. Sales force automation use

Technology is nearly inseparable from discussions of CI, and for salespersons, the impact of technology is largely born through the growing implementation of sales force automation (SFA) systems. Investments in SFA systems and SFA use continue to grow, as do questions about their impact on performance (Honeycutt, 2005; Speier & Venkatesh, 2002). SFA use is believed to provide value by allowing faster and more accurate information (Speier & Venkatesh, 2002), greater responsiveness (Ahearne et al., 2008; Huber, 1990), and improvements to overall productivity through greater support for market scanning capabilities (Tanner & Shannon, 2005). SFA technology systems can take many forms, can be used to integrate a variety of data about a company and its customers, and are often part of a broader, organization-wide system intended to integrate sales activities and other organizational operations (Barker et al., 2009). Research on SFA tends to focus either on the implementation and adoption of SFA technologies (Cascio et al., 2010; Park et al., 2010; Speier & Venkatesh, 2002; Venkatesh et al., 2003) or the impact of SFA use on salespersons, salesperson performance, or organizational performance (Ahearne et al., 2004; Ahearne et al., 2008; Rangarajan et al., 2005).

Intellectual capital is the sum total of all relevant knowledge that firms use to achieve competitive advantage (Subramaniam & Youndt, 2005) and exists at the organizational level as well as at the individual level (Spender, 1996). SFA technology provides a salesperson the ability to automatically search and aggregate organizational-level intellectual capital (Levy, 2003) and combine it with individual-level intellectual capital. SFA technology can be a conduit of an organization's existing pool of intellectual capital to a salesperson. We investigate how this pool of intellectual capital interacts with the salesperson's product knowledge to influence SCIB and performance.

Research on the impact of SFA use suggests multiple paths through which access to organizational-level intellectual capital might influence salesperson performance, but a clear consensus regarding the nature of its influence has yet to emerge in the literature. For example, some evidence suggests that SFA use may directly increase salesperson effectiveness and efficiency (Huber, 1990; Tanner & Shannon, 2005) or indirectly influence performance through its impact on specific salesperson behaviors and characteristics (Ahearne et al., 2008). Additionally, other evidence indicates that SFA use may produce decreasing rates of return at moderate to high levels of use (Ahearne et al., 2004). We build on this line of research and investigate the ability for SFA use to moderate the influence a salesperson's intellectual capital has on SCIB and, hence, salesperson performance.

3. Research model and hypotheses

The cognitive selling paradigm theorizes that a salesperson's knowledge impacts his information-based capabilities and behaviors, and these influence his performance (Porter & Inks, 2000; Sujan et al., 1994; Weitz et al., 1986). This paradigm informs our use of a knowledge–behavior–performance framework in our model of SCIB. Following Homburg et al. (2008), we define salesperson product knowledge as the extent to which a salesperson is knowledgeable about the technical features and capabilities of the products being offered by the firm. As external representatives of the firm, salespersons must handle customers' questions and objections and be knowledgeable about the products and services which their organizations offer (Behrman & Perreault, 1984). The cognitive selling paradigm suggests that superior declarative knowledge (e.g., product knowledge) should increase salesperson information-based behaviors by making it easier to more effectively categorize information (Weitz et al., 1986). In relation to SCIB, we propose that product knowledge provides a basis for identifying and categorizing competitive information. For example, knowledge about one's own products' benefits, faults, and uses can be a basis for the search, organization, and use of information on competitors' new and existing products. In other