



The differing effects of technology on inside vs. outside sales forces to facilitate enhanced customer orientation and interfunctional coordination

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ABSTRACT

This paper presents a study designed to examine outcomes of different workplace structures. Specifically, using a sample of 156 sales organizations, we review how sales force structure, eLearning, and technological tools can influence coordination and the level of customer orientation within an organization. While current literature touts the benefits of an outside sales force, our results suggest that this type of structure, when coupled with eLearning and technological tools, leads to even greater positive outcomes of an outside sales force. By utilizing different forms of technology in conjunction with an outside sales force, this research offers a new dynamic technological environment to further improve salesperson performance.

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1. Introduction

A number of researchers have pointed out the significant changes occurring in the sales function with Ingram, LaForge and Leigh (2002) proclaiming “the sales function is in the midst of a renaissance — a genuine rebirth and revival (pg. 559).” These changes are driven by a number of factors including the need for all areas of the organization to operate more efficiently, changes in customer demands and the use of multiple channels (Piercy, 2006). One response from a sales perspective has been to re-think the way the sales function is structured with one such change being a move towards increased utilization of inside salespeople (Gessner and Scott, 2009). US Census data shows that from 2002 to 2007 the number of firms engaged in call center activities increased from 3344 to 3519 with a corresponding increase in employees from 348,253 to 419,657 and sales from just over \$11 billion to just over \$14 billion.

There has also been a continued transition from transactional selling to more relational or consultative sales approaches. Restructuring the sales function by using more inside salespeople, while being effective with regard to reducing costs, may lead to a decrease in the enhancement of customer relationships that are an antecedent to

positive financial outcomes. However, Lawrence and Hubbard (2008) suggest that inside salespeople can effectively build rapport with customers and propose one way to do this is via the utilization of technology and business intelligence tools.

As this re-structuring occurs, however, there is likely to be a blurring of the traditional roles between inside and outside salespeople. For example, Marshall and Vredenburg (1991) acknowledge that inside salespeople are increasingly engaging in sales related activities previously done by outside salespeople. As this occurs inside salespeople may be less willing to engage in tasks that support outside sales reps. Accordingly, as the sales force is restructured there may be a greater need for interfunctional coordination between inside and outside salespeople as well as within and between other units in the organization as is the case in hybrid channels (Webb and Hogan, 2002). Here again, technology is likely to be useful.

This paper is designed to investigate how sales force structure (i.e., the use of inside and outside salespeople), customer orientation, and interfunctional coordination are inter-related. eLearning (continued education regarding technology and the use of it in a sales context) and technology tools (actual tools that are used to interact with customers) are proposed as tools that can impact the ability of inside and outside salespeople to act in a customer-oriented manner and enhance interfunctional coordination. In addition, the study is set in a broader framework that includes customer relationship performance and financial outcomes. The study should provide useful insights to sales managers who are interested in restructuring the sales function to take into account the potential cost savings emanating from using an inside sales force but who do not want to lose the benefits accruing

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from the use of outside salespeople. The research contributes to theory in being one of the first that explicitly investigates the way technology can work for both inside and outside salespeople in the enhancement of internal (customer orientation, interfunctional) and external (customer relationship management, financial) outcomes.

2. Conceptual model

A term utilized in the management literature that is somewhat synonymous with structure as it used here is telework which refers to individuals working away from the employer's office in any capacity (Mello, 2007). Employees who telework may use a variety of telecommunication tools including computers, cellular phones, fax machines, intranets, and customer relationship management and sales force automation applications to communicate with clients and their corporate headquarters.

A number of reasons have been given for the increase in telework including the ability to reduce overhead, attract personnel, increase productivity, and, most importantly in the sales organization, improve customer service (Perez-Perez et al., 2005). Since salespeople act as boundary spanners, often spending little time at the selling organization, and are inherently positioned to engage in virtual work behaviors (Ahearn et al., 2008), telework allows them to work closer with their customers and optimize the one-on-one customer relationship. In Section 1 that follows we will provide support for our hypotheses which are represented in Fig. 1. Due to the paucity of research relative to inside and outside salespeople we will draw on the literature pertaining to telework and use that term in our presentation. It should be noted that in the study reported in Section 3 we utilize a measure of telework where higher scores refer to greater use of outside salespeople.

2.1. Customer orientation

Customer orientation in a sales context can be defined as the “ability of the salespeople to help their customers and the quality of the customer–salesperson relationship” (Saxe and Weitz, 1982, p. 343). Thus, the more a salesperson understands and meets the needs of their customers, the more likely it is that satisfied customers will come back and also tell their friends (Brady and Cronin, 2001). This process can entail fostering long-term relationships with customers to create a sustainable competitive advantage (Brady and Cronin, 2001).

Using greater levels of telework (i.e., more outside vs. inside sales people) should lead to salespeople becoming more customer-oriented for a number of reasons. First, it is generally conceded that an adaptive selling approach is most effective (Weitz, Sujan, and Sujan 1986). Further support for this can be found in Franke and Park (2006) who reported that adaptive selling behaviors increase salesperson customer orientation. While technology has enhanced the salesperson's ability to interact with customers in a “virtual” environment, in order to achieve an optimal level of customer orientation via adaptive selling salespeople should be able to interact with customers and observe their responses, allowing them to quickly make adjustments to their message (Roman and Iacobucci, 2010). In addition, the ability to meet face-to-face with customers should enhance the ability of the salesperson to develop competitive intelligence concerning the customer, the selling situation, and how competitors may be trying to gain an advantage (Rapp, Agnihotri and Baker, 2011). This should, in turn, enhance customer orientation.

Therefore:

H1. An outside sales force is positively related to customer orientation.

2.3. Interfunctional coordination

Interfunctional coordination involves coordinating and leveraging all available resources across departmental boundaries to create

superior customer value (Narver and Slater, 1990). Interfunctional coordination has become important in a sales context as changing customer demands has led to all departments becoming more involved in the customer relationship (Flint and Mentzer, 2000). The greater the integration among departments, the better the firm is able to adapt to current customer needs. Interfunctional coordination allows for faster communication between departments as well as fewer chances that communication between departments will be misinterpreted (Inglis, 2008). When employees across departments work towards a common goal, problem-solving capabilities and reaction times are increased (Zaltman, Duncan and Holbek, 1973).

However, as more firms utilize an outside sales force it is likely that interfunctional coordination will decrease since, by definition, more employees will be working outside of the firm. This may be particularly true as firm's transition to a sales structure characterized by having inside salespeople more engaged in selling related activities than support activities for outside salespeople. This transition is likely to reduce the ability of the outside salespeople to coordinate their activities (e.g. order processing, post-sales service, understanding delivery times/terms) and will require them to identify others within the firm that are responsible for those activities. Furthermore, structuring the sales force as suggested above (i.e., having both inside and outside salespeople focused maximizing individual sales) may reduce the extent to which the sales teams are focused on a common goal. This, in turn, can lead to increased role ambiguity among the outside salespeople (Rigopoulou, et al., 2011) and increase the amount of professional isolation they may feel (Golden, Veiga and Dino, 2008) thus limiting the degree of communication and cohesiveness that is so critical to interfunctional coordination.

In addition, working in physical proximity of colleagues allows for the development of informal networks and interactions (Gajendran and Harrison, 2007). By increasing the spatial distance from colleagues, outside salespeople might create an environment where they are inadvertently ostracized from their colleagues (McClosky and Igraria, 2003). The lower the frequency of face-to-face interactions between colleagues, the less rich will be the communication between telecommuters and other organization members. Because of evolving technologies, many customers also expect immediate responses from their sales representative. This type of constant and immediate response might also prohibit the salesperson from developing relationships with his/her organizational colleagues. Based on the spatial distance, technological demands, and constant customer demands, it is suggested that:

H2. An outside sales force is negatively related to interfunctional coordination.

2.4. eLearning

eLearning is a technology supported education tool in which the instruction is computer based and little human interaction takes place. eLearning tools are often used in academic contexts for purposes of student education and include things such as web based courses, online discussions, interactive exercises, and online practice tests and quizzes. However, many corporations are also using eLearning tools as a means of supplementing traditional face-to-face continuing education programs, primarily for employees who work outside of the firm (Davis and Wong, 2007). For example, many sales organizations are beginning to use eLearning tools such as podcasts, self-paced tests, interactive role play activities where the ‘buyer’ (or avatar) changes her/his expressions and responses based on the salespersons behaviors, and peer-to-peer technologies where salespeople can post to internal ‘blogs’ to help enhance learning or marketing knowledge (Chelan, 2006; Hahn, 2006).

eLearning, when used correctly, can reduce costs, improve competitive agility, provide greater access to information, and increase

employee competence (Brown, Murphy and Wade, 2006). By implementing eLearning tools, organizations can keep sales professionals abreast of current trends in the competitive environment. By having ready access to customer information, as well as constant training and improvement, sales professionals are able to use eLearning tools to better meet the needs of their customers. Furthermore, eLearning tools can act as a supplementary support tool to sales professionals who engage in outside sales, offering them more opportunities to adapt to changes in customer demand. Because of the constantly changing role of technology, and the changing demands of customers, it is important that salespeople engage in continuing education to stay abreast of these changes. Without eLearning, the flexibility and adaptability that an outside salesperson can provide the customer could become stagnant or dated. Thus:

H3a. The relationship between an outside sales force and customer orientation will be stronger as the use of eLearning increases.

Not only can eLearning improve a sales professional's ability to maintain their customer orientation, eLearning can also enhance interfunctional coordination. As previously hypothesized, the use of outside salespeople generally reduces the amount of interfunctional coordination between departments. However, eLearning can attenuate this in two ways. First, some eLearning tools can act as a platform for colleagues to engage in interactive, continuing education exercises. This interaction can improve communication between departments. Secondly, eLearning can also provide sales professionals with tools to better manage time and communication. These tools can be used to not only handle the demands of clients, but also maintain interactions with the "home office" thus potentially reducing the aforementioned feelings of role ambiguity. Furthermore, eLearning tools can also be used by personnel in other departments to learn how to better manage relationships with sales professionals in the field. Therefore, it is proposed that:

H3b. The negative relationship between an outside sales force and interfunctional coordination will be lessened as the use of eLearning increases.

2.5. Technology tools

Research in the sales literature has extensively examined the role that the adoption of technology has on sales performance (Ahearne, et al., 2007; Ahearne, et al., 2008; Buehrer, et al., 2005; Rapp, Trainor and Agnihotri, 2010). Technology in this sense refers to any technology that aids in the sales function including tools such as CRM (customer relationship management) and SFA (sales force automation systems), as well as virtual conferencing, virtual marketplaces, and the Internet. Hunter and Perreault (2007) found that salespeople "with greater technological orientations are better able to leverage information, which should, in turn facilitate sales planning and adaptive behavior" (p. 95). Salespeople are more likely to use technology when it is useful and it helps them save time and improve communication with customers (Leroy, Marshall and Stamps, 2005; Schillewaert, et al., 2005).

Having a technology orientation allows sales professionals to utilize information about customers more effectively (Hunter and Perreault, 2007) and allows firms with greater information technology capabilities to develop higher levels of customer orientation (Nakata and Zhu, 2006). Finally, technological tools allow for salespeople to respond more quickly and more frequently to customers' requests and questions. Therefore:

H4a. The relationship between an outside sales force and customer orientation will be stronger as the use of technology tools increases.

It was argued previously (H₂) that there will be a negative relationship between the use of an outside sales force and interfunctional coordination. However, this negative relationship can potentially be minimized via the use of technology tools (Glazer, 1991). While not taking the place of face-to-face communication, one positive aspect of technology tools is the ability to communicate simultaneously with a number of different people within the firm. For example, e-mail communication can be copied to numerous people helping to minimize the potential for communication to be miscommunicated across departments. The use of social media (e.g., Twitter) and intranets may have the same effect. No matter where a salesperson is located, they can contribute to a greater interfunctional understanding of customer needs via the use of technology tools (Li, Chau and Lai, 2010) which should enable the firm to be more customer-oriented. While an outside sales structure is negatively related to interfunctional coordination, the adoption of technology tools to better disseminate information, may attenuate the relationship, therefore:

H4b. The negative relationship between an outside sales force and interfunctional coordination will be lessened as the use of technology tools increases.

2.6. Customer relationship performance

It is important to examine the managerial performance outcomes that result from sales professionals working outside of the firm. In this study that takes the form of evaluating both customer relationship performance and financial performance outcomes. Customer relationship performance refers to increases in customer loyalty and satisfaction. Reichheld (1996) argues the primary benefits of customer loyalty are increased revenue and decreased cost of customer acquisition. Customer satisfaction generally accrues when a consumer's expectation is exceeded (Oliver and Swan, 1989). Both loyalty and satisfaction, or customer relationship performance, would seem to be positively impacted by customer orientation. As defined earlier, customer orientation refers to the ability of salespeople to help customers and the quality of the customer–salesperson relationship. It follows that engaging in such behaviors will enhance customer relationship performance.

Understanding customer needs and meeting those needs are fundamental tasks in which the firm must engage. Due to rapid changes in the external environments, customer requirements are changing more quickly than ever before. Firms must be able to quickly respond to these changing demands and to do so requires high levels of interfunctional coordination to ensure that one part of the organization (e.g., sales) is not making promises that cannot or will not be fulfilled by other parts (e.g., transportation). Because customer orientation and interfunctional coordination are two critical components of market orientation, these constructs should influence customer performance outcomes, such as satisfaction and loyalty, therefore:

H5. Customer orientation is positively associated with customer performance outcomes.

H6. Interfunctional coordination is positively associated with customer performance outcomes.

2.7. Financial performance

Ultimately, businesses are sustained through their overall financial performance. Financial performance concerns the "economic outcomes of the firms' market performance and the costs incurred in doing so" (Morgan and Piercy, 1998, p. 198). Previous research has supported the claim that customer orientation leads to positive financial performance (Kohli and Jaworski, 1990; Narver and Slater, 1990; and Zhou, Brown and Dev, 2009). This research extends that

by examining the components of interfunctional coordination and customer relationship performance in the telework context.

H7. Interfunctional coordination is positively associated with financial performance.

Furthermore, increases in customer satisfaction and loyalty will drive financial performance (Gupta and Zeithaml, 2006; Hooley, et al., 2005), thus:

H8. Customer performance outcomes are positively associated with financial performance.

3. Research design and methodology

Data was gathered from a sample of firms representing a broad range of industries (e.g., industrial, technology, financial, media, leisure/vacation, and others) in Belgium. A random sample of 1500 Belgian organizations was contacted by a private market research firm contracted to collect the data. The sample was representative of the size ($\mu = 350$ employees) and types of businesses located in Belgium. The research firm conducted telephone interviews over 2 months to ensure complete survey responses.

Responses were received from 522 organizations (34.8% response rate). These firms were screened to identify those which engaged in business-to-business personal selling as their primary channel of distribution. There were 156 firms so classified and those firms make up the sample for the study. Survey respondents identified themselves as members of the top management team (~95%), with the majority of the respondents categorizing themselves as the chief executive officer

of the organization (or an equivalent position) (~62%), or a business unit or operational vice-president who worked as a chief decision maker of the sales unit (~34%), and in close proximity to the CEO suggesting that the responses are a strong representation of the ideas and values within the organization. Over 61% of the respondents' ages were between 35 and 54 years of age. Most companies sold goods (52.4%) whereas 29.9% were in the service industry and 17.7% classified their organization as both.

3.1. Measure assessment

An assessment of non-response bias led to the conclusion that no significant differences existed between early and late respondents across the study variables. Measures used in the study were adapted from previously developed scales (See Table 1) and were measured using a scale anchored by 1 (Strongly Disagree) and 7 (Strongly Agree) unless otherwise noted. *Sales Force Structure* was measured using four items which capture the extent to which a salesperson works inside or outside of a firm. Higher values represents greater outside sales activity. *eLearning* was assessed using five items from Wang et al.'s (2007) measurement of eLearning systems scale. Again this scale was adapted to represent eLearning initiatives and use that was occurring at the organizational level. The use of *technology tools* was determined by asking the degree to which specific technologies (intranets, customer relationship management and sales force automation technologies) were used. Responses were given on a scale anchored by 1 (Not at All) to 7 (Entirely).

Customer orientation was measured using six items from Narver and Slater (1990). *Interfunctional coordination* was also assessed using

Table 1
Standardized factor loadings, average variance extracted, and reliability estimates.

	SFS	eL	TT	CO	IC	CRP	OP
Many of our employees telework	0.709						
Teleworking is a available for our employees	0.877						
Many of our employees work outside of the company	0.706						
Our employees see the value of telework	0.608						
Our firm has invested in teleworking opportunities ^a							
There are many opportunities to telework ^a							
Our employees are satisfied with the ability to telework within our firm ^a							
We have many eLearning tools in place		0.609					
Many of our employees use e Learning application		0.792					
Access to eLearning initiativehas been unlimited		0.585					
The frequency of use with e Learning system is high		0.779					
We have tools to make eLearning effective		0.533					
Our eLearning system is easy for our employees to use ^a							
Please indicate the degree to which the following technology is used within your firm							
Customer relation management			0.818				
Sales force automation			0.917				
Intranets			0.793				
We regularly follow and analyze the needs of our customers				0.781			
Our company objectives are determined by customer satisfaction				0.747			
Our strategy to achieve a competitive advantage is based on the comprehension of customer needs				0.861			
We measure customer satisfaction on regular base				0.837			
Our company strategies have the objective to create as much value as possible for our customer				0.813			
We spend a lot of attention towards the after sales service				0.718			
Information about our customers is communicated freely throughout the company					0.810		
Different company functions work in an integrated fashion to fulfill the needs of our objectives					0.903		
Our managers understand how employees from all functions can contribute to deliver customer value					0.901		
We share "resources" between different business units					0.764		
Managers from different company functions visit customers regularly					0.689		
Relative to your competitors, how well does your company perform...							
Customer satisfaction						0.872	
Customer loyalty						0.853	
Relative to your competitors, how well does your company perform...							
Return on investment							0.910
Cost position							0.707
Profitability							0.835
Average variance extracted	0.53	0.73	0.52	0.63	0.57	0.74	0.68
Cronbach's alpha	0.76	0.89	0.89	0.90	0.90	0.85	0.85
	SFS	eL	TT	CO	IC	CRP	OP

^a Item dropped due to weak item loading.

Table 2
Structural equation results.

Structural model results		
Structural relationship		Standardized parameter estimate
H1:	SFS → CO	−0.139
H2:	SFS → IC	−0.112
H5:	CO → CRP	−0.212 ^a
H6:	IC → CRP	0.373 ^b
H7:	IC → OP	0.213 ^a
H8:	CRP → OP	0.205 ^a
	OS → CRP	0.036
	OS → OP	−0.010

^a Significant at p<0.5 level.
^b Significant at p<0.01 level.

five items from Narver and Slater's, 1990 scale. Customer relationship performance was adapted from scales used by Rust, Moorman and Dickson (2002) and assessed via Likert items anchored by 1 (Worse) and 7 (Better). A subjective measure of organization financial performance was used due to previously identified issues with objective performance measures including the fact that respondents may be unwilling to provide them or, if provided, they may not be comparable to what is provided by other organizations (Siguaw, Simpson and Baker, 1998). In addition, performance was measured as relative performance to control for performance differences among different industries and markets served (Slater and Narver, 1995). As past research has argued to control for the size of the organization, organizational size was included as a covariate within the model (Chandy and Tellis, 1998).

3.2. Analysis and results

The hypotheses were tested using AMOS 6.0. First, a CFA Model was fit to the data which yielded an acceptable fit ($\chi^2 = 483.7(378)$, $p < 0.01$; CFI = 0.96; TLI = 0.95; RMSEA = 0.04; SRMR = 0.06) based on goodness-of-fit statistics as outlined by Hair et al. (2009). Fornell and Larcker (1981) tests for discriminant validity were all found to be acceptable, all factor loadings were significant ($p < 0.01$) and composite reliabilities exceeded 0.60 as suggested by Bagozzi & Youjae, 1988, and the lowest coefficient alpha level was 0.76 (see Table 1).

Because all of the variables were collected using seven-item response scales, common method variance (CMV), which would have the effect of inflating correlations between the dependent and independent variables, could be an issue. Two methods were used to assess the extent to which CMV might be present. As suggested by Griffith and Lusch (2007), a CFA approach was used to assess Harman's one-factor test. This initial model had a significantly better fit than the one-factor model. Second, the partial correlation procedure of including a marker variable (i.e., a variable not theoretically related to

at least one other variable in the study) was employed. By using age as the marker variable, no significant relationships to other variables in the model were found thus providing additional evidence that CMV is not an issue.

Next, the linear effects present in our model were examined [$\chi^2 = 615.5(389)$, $p < 0.01$; CFI = 0.91; TLI = 0.90; RMSEA = 0.06; SRMR = 0.12]. Support is found for four of the six hypothesized xrelationships. As hypothesized, there is a positive influence of a firm's customer orientation (H5: $\beta = 0.212$, $p < 0.05$) and interfunctional coordination (H6: $\beta = 0.373$, $p < 0.01$) on customer relationship performance. The analysis also indicates that both interfunctional coordination (H7: $\beta = 0.213$, $p < 0.05$) and customer relationship performance (H8: $\beta = 0.205$, $p < 0.05$) have positive influences on financial performance (Table 2).

Subsequently, the influence of sales force structure on interfunctional coordination and customer orientation was investigated. There was no significant influence of the sales force structure on our intervening variables. Sales force structure did not have any impact on customer orientation (H1: $\beta = -0.139$, $p = ns$) nor did it influence interfunctional coordination (H2: $\beta = -0.120$, $p = ns$). Finally, results indicate that the organizational size covariate had no significant effect on the relationships proposed in the hypothesized model. It is possible that when top managers respond regarding relative performance, they respond relative to a similar industry as well as size, resulting in no significant effects.

The final stage in the analysis was to examine the hypothesized moderating effects. Given the challenges associated with testing interaction effects via SEM (Marsh et al., 2004; Ping, 1995), hierarchical regression analysis in SPSS was used. This technique is among the most frequently used methods for testing interaction effects (Gournaris et al., 2010). Prior to the actual tests, sales force structure, eLearning and technology tools were all mean-centered. The multiplicative interaction terms were then calculated.

First, the proposed moderating effects of eLearning and technology tools on the relationship between sales structure and customer orientation were examined (see Table 3). Two regression equations, both of which contain customer orientation as the dependent variable and sales structure as the independent variable, were estimated. Additionally, in one equation eLearning is included as the moderator as is the multiplicative interaction between sales structure and eLearning; in the other equation technology tools takes the place of eLearning. Support was found for both hypothesized interaction effects. eLearning initiatives have a significant moderating influence on the relationship between sales force structure and customer orientation (H3a: $\beta = 0.210$, $p < 0.05$). In addition, technology tools moderate the relationship between structure and customer orientation (H4a: $\beta = 0.177$, $p < 0.05$).

Following this, an analysis was conducted to assess the extent to which eLearning and technology tools moderated the relationship between sales structure and interfunctional coordination. The analysis was conducted exactly as described in the preceding paragraph with

Table 3
Hierarchical regression results.

Hierarchical regression results—customer orientation outcome					Hierarchical regression results—interfunctional coordination outcome				
Variable	Main-effects model		Full-model		Variable	Main-effects model		Full model	
	β	t-statistics	β	t-statistics		β	t-statistics	β	t-statistics
SFS	−0.020	−0.0252	−0.053	−0.681	SFS	−0.025	−0.314	−0.0062	−0.823
eL	0.220**	2.714**	0.170*	2.144*	eL	0.232**	2.868**	0.169*	2.182*
TT	−0.081	−1.017	−0.083	−1.091	TT	−0.086	−1.078	−0.089	−1.192
SFS × eL			0.210*	2.558*	SFS × eL			0.274**	3.418**
SFS × TT			0.177*	2.213*	SFS × TT			0.175*	2.233*
R ²		0.049		0.145	R ²		0.055		0.185
Adjusted R ²		0.031		0.117	Adjusted R ²		0.036		0.158
Change in R ²				0.096	Change in R ²				0.13

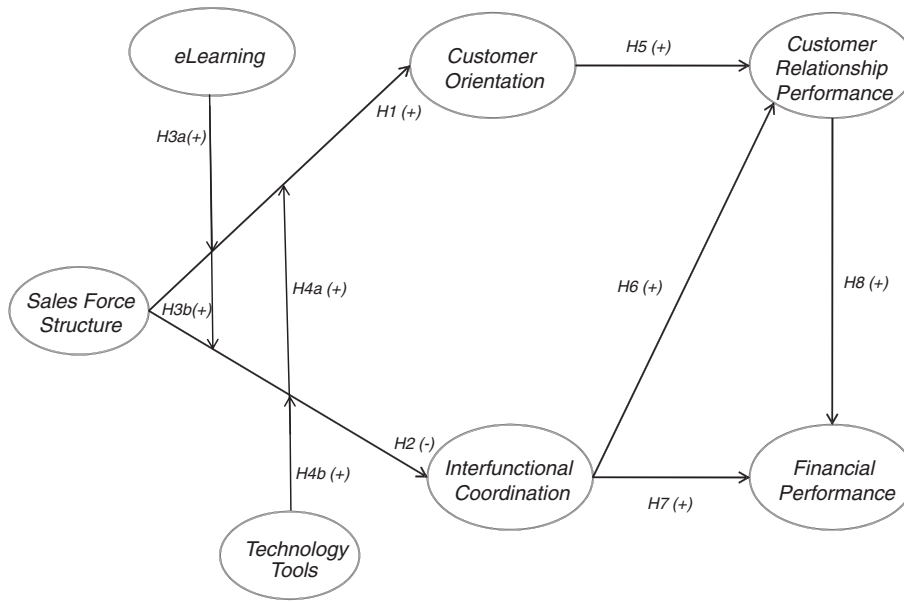


Fig. 1. Hypothesized model.

the exception of interfunctional coordination being used in place of customer orientation. The results indicate that both eLearning (H3b: $\beta = 0.274, p < 0.01$) and technology tools (H4b: $\beta = 0.175, p < 0.05$) have a positive moderating influence on the relationship between an outside sales force and interfunctional coordination.

To provide additional insights relative to the interactions, the relationships between sales force structure and customer orientation and interfunctional coordination were plotted. As suggested by Aiken and West (1991), values corresponding to the average, low (one SD below the mean) and high (one SD above the mean) values of the eLearning and technology tools moderators were used. The results using customer orientation as a dependent variable appear in Figs. 2 and 3 and those for interfunctional coordination in Figs. 4 and 5. As seen in Figs. 2 and 3, as eLearning becomes more prevalent within an organization, sales force structure moves from a negative slope to a positive slope, suggesting that an outside sales force coupled with eLearning has a positive influence on customer orientation and

interfunctional coordination. As seen in Figs. 4 and 5, in organizations where technology tools are available, outside sales has a positive influence on interfunctional coordination and customer orientation.

4. Discussion

Recent trends indicate that there are likely to be significant changes in the structure of the sales function with a greater reliance on outside salespeople (i.e., telework) and a change in the traditional role of inside sales people towards behaviors that are more focused on selling. These changes are being driven in part by continuing innovations in the field of telecommunications technology as well as the need for most companies to decrease costs. As suggested in a recent meta-analysis (Bailey and Kurland, 2002), there has been a substantial amount of research examining individual level outcomes of working outside of the boundary of a firm (i.e., organizational commitment, absenteeism, quality of life) however, few studies have

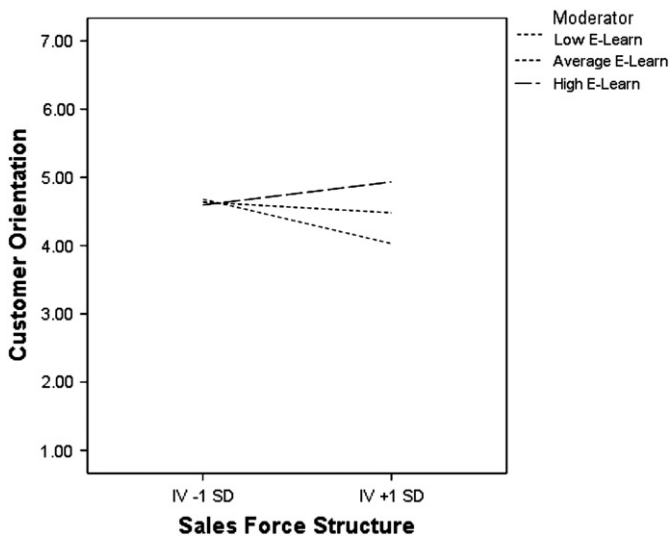


Fig. 2. Graphical depictions of interactions.

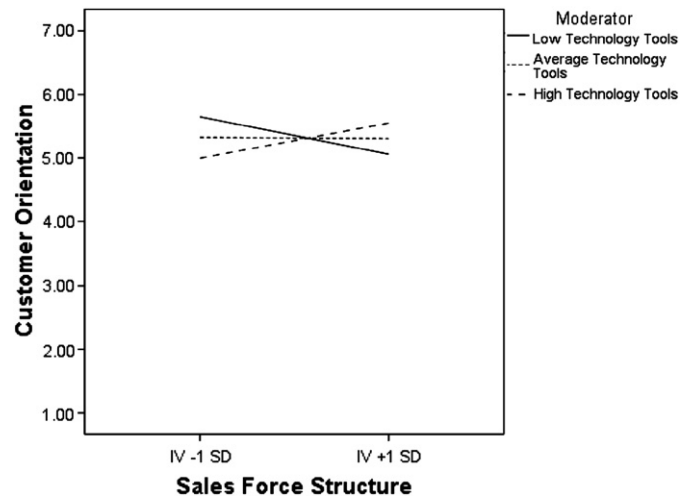


Fig. 3. Graphical depictions of interactions.

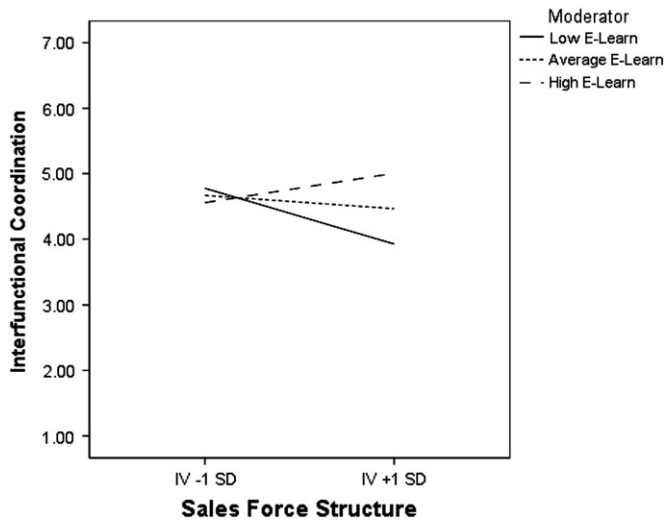


Fig. 4. Graphical depictions of interactions.

examined the impact of these behaviors on the organization as a whole (p. 391). Therefore, the purpose of this study is to examine some of the organizational level factors influenced by sales force structure. Moreover, we are interested in technological factors that can potentially influence the relationship between sales force structure and these organizational outcomes.

From a theoretical standpoint, this study provides a number of interesting findings. First, we found no relationship between a higher level of the use of outside salespeople and customer orientation or interfunctional coordination. It's interesting that even though the individual salesperson may be benefitting, there do not appear to be any benefits accruing to the organization. This finding stimulates the need for future research designed to examine whether the positive effects for individual employees are being offset at the firm level.

While the above point is intriguing, of greater interest are the tests of the moderating effects of eLearning and technology tools. Interestingly, all four of the proposed moderating effects were significant. Although the four hypotheses have different theoretical underpinnings and the relationships presented are unique, an overarching theme that emerges from these findings is that outside sales behaviors appear to be more successful when used with the

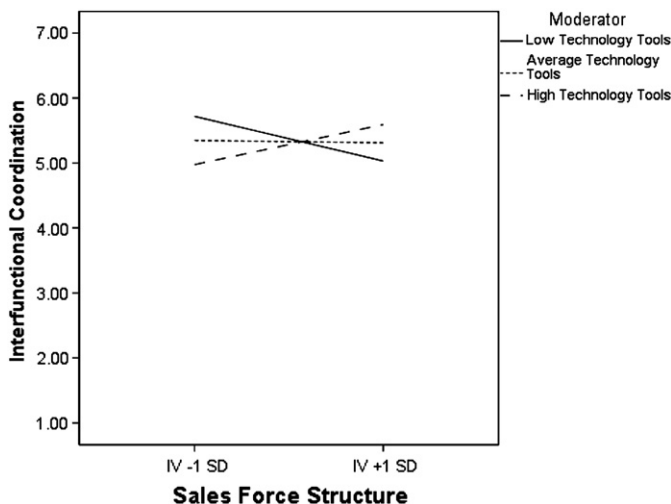


Fig. 5. Graphical depictions of interactions.

appropriate forms of technology (e.g., eLearning and technology tools). This suggests the appropriate technological infrastructure must be in place to support an outside sales force if the firm is to achieve optimal levels of customer orientation and interfunctional coordination. To best leverage an outside sales force, organizations must not only provide technologies which foster contact with the firm by offering a repository of customer and employee knowledge but must also provide eLearning opportunities so that employees that work external to the firm can effectively train themselves on using the technology.

5. Managerial implications

There appears to be a move towards changing the structure of the sales force to incorporate more inside sales activities while also maintaining the outside sales force necessary to maintain customer relationships. Regardless of which option is chosen, one managerial implication of this study is that the appropriate level of eLearning and technological tools must be provided to aid both inside and outside salespeople in developing the levels of customer orientation and interfunctional coordination necessary to allow the firm to be optimally successful.

With many firms mandating programs in which at least a portion of every workweek is spent engaged in some level of outside sales (Gajendran and Harrison, 2007) managers must become proactive and not reactive to changing workplace behavior. Since salespeople act as boundary spanners, often times operating away from the organization for extended periods of time, they inherently engage in the types of behaviors explored in this research. Thus, organizations that employ personal selling as the primary distribution channel for their products and services are positioned to make use of outside sales opportunities. However, with this in mind, it is apparent that both academics and practitioners have ignored the effect that these behaviors may be having on their sales organization.

First, managers must realize that the inability to present a workplace strategy which embraces an outside sales force could present opportunities for lost customer satisfaction and cost savings. However those firms that do embrace this strategy must ensure the appropriate tools are in place to gain organizational advantages. This research indicates the sales force structure must be supported by effective eLearning tools and technology tools to gain the greatest possible benefit. Second, although outside the scope of this research, managers must take an active leadership role in leveraging technology and structure to gain a competitive advantage. Offstein, Morwick and Koskinen (2010) have shown it is critical to fuse technology and leadership to gain success. Managers must unlearn their old strategies and depart from conventional notions of leadership. They must begin to demonstrate a progressive leadership style that is both creative and innovative in order to effectively design and implement an outside sales program and avoid “muddling through” that often characterizes changes in technology (Low and Johnston, 2011). Finally, sales managers must keep in mind that for organizations to be successful they must understand the value that customers place on all the services surrounding a product. Salespeople are an integral part of this service package. Indeed, Bitner (1990) argues that during the service encounter, employee (salesperson) behavioral performance is the service. Therefore, any tools or initiatives that can have a positive influence on a salesperson's behaviors must be critically evaluated and considered. eLearning and different technology applications would appear to be two such items.

6. Limitations and future research

While several relationships were examined in this study, there is ample opportunity to explore additional constructs and their role relative to sales force structure. The cross-sectional nature of this

study provides only a snapshot in time which makes it difficult to fully understand the order of effects. Future research with longitudinal data can provide a richer understanding of the relationships between the constructs examined here. A second limitation concerns the fact the survey responses came only from top managers. This limitation raises concerns about the influence of method bias in our results; however, tests indicate that should not be a problem. Another limitation is that organizational leaders are reporting on the behaviors of their employees. It would be valuable to recreate this study within a single firm and determine what individual outcomes may be influenced by the relationships presented and their impact on salesperson performance. Also, there are countless types of technology tools, both hardware and software, that could have been included in this research. As this study only included those believed to be critical in the sales area, the study is limited. Future research including other types of technology would be valuable.

Moving forward, future research may consider the congruity between adopted business practices and the tools put into place to best develop this strategy. For example, academicians in the information systems (IS) discipline present the idea of IS strategic alignment as the alignment between business unit strategic orientations and IS strategic orientation. IS strategic alignment is calculated as the degree to which a company employs the systems that support strategic orientation. While not grounded in this theory, our findings support this notion of aligning business strategy and IT strategy to garner the greatest impact.

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