

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This chapter is divided into four sections: (6.1) Conclusions, (6.2) Theoretical Contributions, (6.3) Managerial Implications, (6.4) Limitations and Suggestions for Future Research.

6.1 Conclusions

The primary objective of this study was to develop an integrated model and empirically examine important linkages among IT utilization, sales performance, and selling capabilities essential in a business-to-business context. Much of the existing research has focused mainly of factors influencing the adoption of IT and IT use for routine tasks. This study expands the current body of knowledge of sales IT by investigating IT's impact on the capabilities of working smarter, targeting, and value-added selling and sales performance, rather than the tasks of salespeople.

Our results offered are as follow:

IT Utilization Among Salespeople. IT utilization was indicated by how frequently salespeople used sales IT to perform various regularly performed basic functions of data storage and retrieval, and occasionally executed communication network functions and data analytical functions.

Salespeople were employing sales IT for the most basic functions of information management and have yet to move towards greater use of advanced features. Our data showed that pharmaceutical salespeople were using IT at moderate frequencies and had different levels of engagement for particular functions. Among our Thai sample, IT was

used mostly for basic routine functions of data storage and retrieval ($\bar{x} = 3.082$, $s_x = .954$), thus keeping themselves continuously updated on their daily and weekly activities, order placement, product specifications, and customer information. Used less frequently by salespeople were sales IT communication functions ($\bar{x} = 2.86$, $s_x = 1.020$) of transmitting and tracking orders and contacting customers. The least frequently used functions were those for data analysis ($\bar{x} = 2.57$, $s_x = .973$), which involved the manipulation of existing data to generate new information. This relatively low utilization of data analysis functions was not surprising as data analysis for segmenting customers and forecasting sales and expenses were tasks typically conducted on a monthly or ad hoc basis. This moderate level of IT usage among our Thai sample was consistent with that found among a sample of UK pharmaceutical salespeople in the study conducted by Donaldson and Wright (2004) ($\bar{x} = 4.17$ on a 1 to 7 point scale).

The IT utilization construct in this study was comprised largely of data analysis functions then by data storage and retrieval for customer information. Communication functions for sales call reporting and contacting customer did not contribute to the IT utilization construct. This contrasts with previous studies where communications functions appeared to be a major contributor of IT use (Engle and Barnes 2000; Widmier, Jackson and McCabe 2002). Communication features such as the mobile phone, email, and facsimile may appear to be too familiar or common for Thai salespeople, thus not considered a major part of the digital components of IT.

The Impact of IT Utilization on Overall Sales Performance. For our empirical test of the holistic model of the IT utilization-sales performance relationship, which included the three selling capabilities as mediating variables, structural equation analysis was used. Selling capabilities mediated the effect of IT utilization on sales performance.

Hence, salespeople who utilized IT at greater frequencies tended to achieve greater sales performance by engaging in higher levels of working smarter ($\bar{x} = 3.97$, $s_x = .527$), targeting ($\bar{x} = 3.97$, $s_x = .554$), and value-added selling ($\bar{x} = 3.72$, $s_x = .705$). This proposed model explained a comparatively large amount of variance in sales performance ($R^2 = .715$).

The moderate use of IT suggested that salespeople might not be maximizing the full potential of their sales IT. On the contrary, when IT utilization was linked to selling capabilities, the positive relationship was significant. This supported the fact that the use of IT, as compared to performing such tasks manually, was a tremendously efficient means of managing and processing data to create valuable information, such as predicting buying trends from customers' historical data and identifying changes in customer's buying patterns (Anand, Manz and Glick 1998). Furthermore, it was apparent that the *quality*, rather than *quantity* (i.e., frequency) of IT utilization contributed more to improving selling capabilities (DeLone and McLean 1991).

Although all three selling capabilities in the study were critical for salespeople to achieve their performance objectives, the mediation results and the predictive comparisons suggested that working smarter was the dominant mediating selling capability. The mediating effect of working smarter suggested that IT utilization and the information obtained were being applied to the work involved in the actual selling of products. There have been contradicting results on the relationship between working smarter and sales performance, depending on how working smarter was measured. Although Barker (1999) found no relationship between sales performance and adaptive selling, call planning, and sales support, our results were consistent with those found by Sujan, Weitz and Kumar (1994) (i.e., possessing the knowledge to make the sale, planning for the sale, and adapting feedback and sales pitches during sales interactions).

However, we expanded the work of Sujan, Weitz and Kumar (1994) by including three dimensions of performance and found that the effectiveness of working smarter made a strong impact not only on sales outcomes, but also on enhancing customer relationships and inducing cost control.

Salespeople with greater frequency of IT utilization were engaging in higher levels of targeting and value-added selling. Unfortunately, the effects of these two capabilities on sales performance, although significant, were diminished ($b_{\text{valadd}} = .244$, $p = .004$ and $b_{\text{target}} = .186$, $p = .029$). This implied that the information generated through IT might not be relevant or effectively applied to the activities of targeting and value-added selling. Such inaccurate assessments about customer and market needs have been shown to directly affect performance (Lambert, Sharma and Levy 1997; Weitz 1978), resulting in lower short-term profitability (Lambert, Marmorstein and Sharma 1990). Consequently, targeting and value-added selling became less useful in achieving short-range objectives of making the sale and minimizing costs. These findings also suggested that salespeople might have taken actions aimed at increasing customer retention (e.g., targeting customers based on longevity rather than profitability) and long-term customer satisfaction (e.g., provided customer training rather than cross selling) they may have neglected actions that increased the probability of an immediate sale (Saxe and Weitz 1982).

The Effect of IT Utilization on Specific Sales Performance Dimensions. Results from the supplemental stepwise regression showed that IT utilization, as an independent variable with the three selling capabilities, had significant, but marginal positive influence only on sales outcomes. As substantiated by the interviews, IT utilization on a regular basis enables salespeople to accurately and reliably monitor their progress in attaining

sales targets. This helps salespeople become aware of how much more (or less) effort is required in order to reach or exceed their sales objectives.

Differential Effects of Selling Capabilities on Specific Aspects of Sales Performance. Sales outcomes were positively influence by working smarter, value-added selling, targeting, and IT utilization. This suggested that more much effort and is needed for salespeople to exceed their sales targets. Closing the deal and making the sale are more difficult in highly competitive industries. Salespeople perceived the pharmaceutical industry to be highly competitive ($\bar{x} = 4.551, s_x = .684$), thus urging them to apply these selling strategies. Relationship effectiveness was positively influenced by working smarter, value-added selling, and targeting. Controlling of sales expenses was positively impacted by working smarter and value-added selling. By working smarter, salespeople inherently improve their operational efficiency, thereby lower their selling costs (Sujan, Weitz and Sujan 1988) while value added selling enables salespeople to effectively maintain customers and reduce customer costs (Pelham 2002).

Additional Insights. A more parsimonious model that included IT utilization, working smarter, customized selling capabilities, and sales performance was developed, tested, and showed good fit. The newly formed 'customized selling capabilities', comprised of targeting and value-added selling capabilities, had a larger impact on sales performance ($b = .402, p = .000$) than either targeting or value-added selling. This implied that targeting and value-added selling, when integrated, had a synergistic effect on sales performance.

A comparison of the effects of IT utilization, working smarter, targeting, and value-added selling on specific areas of sales performance among various sales groups within the sample showed a few differences. Between OTC and Ethical channel

salespeople, OTC salespeople realized greater performance by applying targeting ($b_{\text{OTC}} = .183$ vs. $b_{\text{ethical}} = .171$, $p = .046$) and value-added selling activities ($b_{\text{OTC}} = .39$ vs. $b_{\text{ethical}} = .122$, $p = .093$). Between Medicine and Other pharmaceutical products salespeople, IT utilization and working smarter capabilities were more helpful to increase the performance of salespeople selling only medicines ($b_{\text{medicines}} = .230$ vs. $b_{\text{other}} = -.044$, $p = .006$). Therefore, the relationships among IT utilization, selling capabilities, and sales performance were context-specific. These findings are useful for sales managers to place greater training effort and encouragement on the more effective determinants of sales performance.

6.2 Theoretical Contributions

6.2.1 Integration of IT Theory and Sales Performance

The theoretical domain of sales performance has been largely dominated by the frameworks of Weitz (1977), Bagozzi (1978), and Churchill et al. (1985). The sales performance models proposed by these influential scholars have been expanded in this study by integrating Huber's (1990) theory of the effects of advanced IT to explain how IT affects the performance of salespeople. Therefore, this study developed and empirically tested a contemporary model of sales performance that incorporated IT tools that are becoming more pervasive in sales organizations with indispensable capabilities suggested by the cognitive selling paradigm (Sujan 1986; Szymanski 1988; Weitz, Sujan and Sujan 1986) and commitment-trust theory (Morgan and Hunt 1994).

The application of Huber's (1990) theory has been extended to the marketing discipline. In this study, Huber's theory, once limited to IT impact at the organizational level, has been shown to be relevant not only at the individual level, but also within a marketing context.

From the cognitive selling paradigm, working smarter was found to distinguish effective salespeople from ineffective ones (Szymanski 1988; Sujan, Sujan and Bettman 1988). Our study broadened our understanding of the specific performance gains from working smarter and provided additional support for its importance in selling. Additionally, our results showed that working smarter was not only necessary to achieve sales outcomes, but was also an essential capability to improve relationship effectiveness and induce the controlling of sales expenses.

Building on the commitment-trust theory, value-added activities in this study referred to sharing information and solving buyers' problems. Such activities consequently enhanced firm-customer relationships (Ogbuehi and Sharma 1999). The third capability, targeting, has been frequently cited in the marketing literature as an important determinant of performance, yet the relationship has not been empirically tested. Our study established empirical evidence linking targeting and value-added selling to performance.

6.2.2 Empirical Test of the IT Utilization on Sales Performance Model

6.2.2.1 Sampling

As part of the research methodology used in this study, the context included a broad and diverse group of 324 pharmaceutical sales professionals, of which 15% is sales managers. The respondents were drawn from 5 Asian- and 7 non-Asian- affiliated firms selling different pharmaceutical products to different channels (i.e., Ethical and OTC). The pharmaceutical industry was chosen because of its early adoption of sales IT (Engle and Barnes 2000) and the major role that IT plays in order to expedite product introductions and to improve the communication and monitoring systems of the field representatives.

Unlike the numerous sales performance studies that have been confined to single-firm contexts as a means to control various influential factors, such as competitive intensity and product types (Chonko et al. 2000), the diversity in our sample lends to its generalizability within the industry. In our study, extensive details on the nature of the pharmaceutical sales job and as much sample data as possible have been provided so readers can make inferences about the nature of the performance relationship presented and draw their own conclusions. Additionally, evidence suggests that nonresponse bias did not taint the results because a comparison of earlier and later responses revealed no significant differences.

Our empirical study also contributed to the personal selling and sales management literature by investigating sales performance in a non-western context. Several of our findings contrast those found from the U.K. sample in the study by Donaldson and Wright (2004). This confirms the context- and culture- specific nature of personal selling. In fact, although all salespeople in the sample are Thai, selling behaviors differed depending on their firm's country affiliation. Salespeople from non-Asian affiliated firms received greater organization support to use IT ($\chi^2 = 27.906, p = .000$), were likely to use more sales IT ($\chi^2 = 27.310, p = .000$) and were more likely to work smarter ($\chi^2 = 26.128, p = .000$), engage in targeting ($\chi^2 = 5.968, p = .007$), and practice more value-added selling ($\chi^2 = 19.786, p = .000$). The international personal selling and sales management literature is scant, and international research in this area is important to address selling practices and business relationships in other cultural contexts.

6.2.2.2 Construct Development

For this study, several existing scales were adapted and the new ones were developed. First, IT utilization items were examined as behavioral measures for specific functions commonly available for use by pharmaceutical sales professionals. These

functions, such as contact management software, spreadsheets, and network interconnectivity were available in various types of sales IT devices such as PDAs, laptops, desktop computers, and company database/information systems.

The widely accepted but empirically ignored selling capabilities of targeting and value-added selling were developed and validated through systematic and technical procedures extensively and commonly used in marketing research. The reliabilities of targeting and value-added selling were high ($\alpha = .793$ and $\alpha = .831$, respectively).

The specific achievements of salespeople are of considerable significance to the success of a firm. We have included both behavior- (e.g., the way salespeople sell) and outcome-based measures (e.g., the sales targets achieved), and focused particularly on the latter as our primary dependent variable. Moreover, sales performance was further delineated into three dimensions: sales outcomes, relationship effectiveness, and controlling sales expenses. These are performance outcomes by which salespeople today are commonly evaluated as opposed to the more common approach of using single measures in most past sales performance studies. Including three different sales performance measures allows us to assess whether selling effort has a varying impact on different aspects of sales performance. Performance measured in terms of sales are included in most sales performance studies (e.g. Engle and Barnes 2000; Keillor, Bashaw and Pettijohn 2001).

A significant contribution of this study was the inclusion of relationship effectiveness as an outcome of selling effort since customer relationship building has increasingly been adopted as a main objective of many firms (Weitz and Bradford 1999). Relationship effectiveness was a major dimension of the sales performance construct, indicating that Thai salespeople were more relationship-oriented than sales oriented. This

contrasted the findings from Donaldson and Wright (2004), who found that U.K. pharmaceutical salespeople were more sales oriented.

6.3 Managerial Implications

These findings offer important implications for sales managers and IT sales-based organizations.

6.3.1 How is IT Important in Sales?

The results showed that IT was efficient in enhancing salespeople's capabilities to work smarter, target, and add value to customer relationships. With IT utilization facilitating these capabilities, 71.5% of the variance in sales performance was explained. Without IT utilization, the variance explained decreased by 11.6%. This appeared to be a substantial loss in potential performance gains. Thus, it would be worthwhile for managers to encourage not only greater use, but also more productive use of IT.

IT was perceived as being most useful to expedite the accomplishment of tasks and to enhance sales productivity ($\bar{x} = 4.124$, $s_x = .787$ and $\bar{x} = 3.709$, $s_x = .795$, respectively), but only slightly useful for increasing sales and improving customer relationships. In general, salespeople found their sales IT easy to use ($\bar{x} = 3.335$, $s_x = .812$). These perceptions of IT had a positive influence on the extent to which sales IT was used on the job. Previous studies on salespeople's satisfaction of their sales IT have been conducted (Shim 2004). Sales organizations should consider determining whether their sales IT meets the needs of their salespeople.

Our results suggested that IT utilization facilitated certain phases of the personal selling process which included: prospecting (i.e. identification and prioritizing), preapproach (i.e. sales knowledge and sales planning), presentation, handling objections, and the close (i.e. adaptive selling), and post-sale follow up (i.e. intelligence support and

buyer problem solving). IT utilization made the greatest impact on working smarter ($b = .383, p = .000$), thereby facilitating the preapproach and presentation phases.

6.3.2 How Can Selling Strategies Be Improved?

6.3.2.1 Sales Training to Promote Performance

A basic objective of most sales training efforts is to induce changes in salesperson behavior that promote performance. Knowing that IT was being used at moderate levels and that the transfer of information from IT utilization might be ineffective, more training for IT use and effective implementation of selling approaches must be arranged for pharmaceutical salespeople.

IT Training. Inadequate IT training is being provided to pharmaceutical salespeople. Future IT training should be designed to achieve two concurrent objectives. First, the content of IT training programs should aim to develop salespeople's skills for data analysis. This would include skills to use the technical features that typically apply models to the manipulation of data. Methodology of such training should be 'hands-on' and encourage experimentation of data analysis functions. Data analysis training should also include developing salespeople's analytical abilities to select appropriate data for analysis and to interpret and assign meaning to 'newly' generated data. This could be done through simulations and case study analyses.

The second objective of IT training should be to demonstrate management and peer support for IT utilization. For field representatives, interaction with organizational peers and superiors tend to be relatively formal (e.g., periodic sales meetings) and sporadic. This diminished opportunity to interact with organizational peers and superiors elevates the importance of sales training to salespeople. IT training sessions are an efficient means of socializing salespeople, particularly new hires, to produce behaviors

consistent with corporate goals resulting in outcomes that support the needs and objectives of the organization (Barksdale et al. 2003; Dubinsky 1986).

Selling Skills Training. Although working smarter, targeting, and value-added selling capabilities positively and significantly affected sales performance, the magnitude of impact that working smarter had on sales performance was more than twice as much as the other two capabilities. The rationale behind this is because the *frequency* of targeting and engaging in value-added selling did not contribute largely to the improvement of sales performance.

The criteria used for targeting might not be accurate in identifying positive leads and prioritizing customers into 'profitable' groups. Many salespeople in the sample did not categorize or classify their own customer databases and obtained the classifications from their sales managers. Salespeople should be given the opportunity to provide feedback to management on the efficiency of the customer classifications or to perform their own targeting approaches, as salespeople have more reliable, insightful information about their customers. However, poor accuracy in understanding customers is not uncommon among salespeople (Sharma and Lambert 1994). Establishing and building relationships through developing personal ties is a common practice in Thai business settings (Itthiopassagul and Blois 2000). Salespeople who are performing their own targeting activities may be selecting 'good' prospects and customers based on personal preferences or 'social' ties rather than prioritizing by the 'rule' of profit potential. Sales managers may reconsider the way their targeting activities are conducted.

Similarly, the 'value' of information exchanged through value-added selling may be ineffectual in leading to short-range objectives of making the sale and minimizing cost. Salespeople might not be exchanging quality information and offering feasible solutions to customers' problems when practicing value-added activities. Sales managers should

determine what type of information salespeople are sharing with their customers to ensure it focuses on improving customers' business. Firm performance could be improved if the salesforce is better trained to gather more accurate information. Sales training programs should emphasize diagnosis, and problem-solving skills compared to company/product knowledge and planning skills (Liu and Leach 2001; Pelham 2002).

6.3.3 Characteristics of Salespeople Important to IT and to Impact Performance

Selection decisions for professional salespeople are important and have the potential to significantly effect an organization's revenues and profitability. When companies with sales IT are considering applicants for sales positions, they should attempt to determine the various characteristics that correlate with IT utilization to increase the likelihood that the new recruit would readily adopt the firm's tools of selling, and decrease potential turnover.

We have identified several desirable traits that could be considered during the recruitment and selection process. In addition to the existing demographic and personality characteristics sought by a company, other candidate variables should include a favorable attitude toward IT and younger applicants with several years of selling experience.

Candidates who possess a favorable attitude toward IT would find IT easy to use ($\chi^2 = 6.667, p = .000$), be more likely to adopt sales IT ($\chi^2 = 26.451, p = .000$), use IT to enhance work productivity ($\chi^2 = 3.710, p = .027$). Such an attitude may improve efficiency since the candidate may be more willing to adopt sales IT and expend time to find new ways to use it productively (Jones, Sundaram and Chin 2002). Also, candidates who are younger in age may have already been exposed to new technologies (i.e., mobile phones, computers, Internet, etc.) in schools and would likely be more adept and at ease in adopting sales IT ($\chi^2 = 39.860, p = .000$). Finally, salespeople with more sales

experience tend to be more productive (Keillor, Bashaw and Pettijohn 1997) and are more willing to utilize IT (and other beneficial approaches) in order to increase their levels of productivity.

Clearly, for sales organizations that expect IT to play a larger role in selling, effective matching of the qualifications of candidates with demands of the job (e.g. IT and analytical skills for targeting and sales forecasting) potentially reduce turnover, decrease training costs, and increase long-term profitability.

6.3.3 Sales Management Policies

Profit contributed by a firm's sales organization is a combination of generated sales, selling costs incurred, and long-term repeat purchases from customers. The results from this study indicated that relationship effectiveness was a major contributor to performance. Sales organizations that aim to improve their relationships with customers should evaluate and reward salespeople on their ability to solve customer problems, reduce customer costs, increase sales from current customers, improve customer satisfaction, and improve customer retention.

Although sales and customer satisfaction contribute to a sales organization's profitability, so too does operating costs incurred by salespeople. Controlling sales expenses appeared to be given the least emphasis by salespeople to their overall performance. Interview data from salespeople corroborated this finding. Some firms strongly encouraged their salespeople to optimize their trade spending, such as giving prospects samples, premiums, and other enticing concessions, as a tactic to generate sales. Salespeople also perceived gains from offering such cost-incurring sales promotion activities.

To manage the overall performance of salespeople, sales managers should give greater attention to salespeople's profit contribution. Controlling of sales expenses could

be encouraged by the company by establishing incentive schemes or offering rewards to those salespeople who minimize their selling costs. At the same time, sales managers can include selling cost reductions as part of their returns on IT investments.

6.4 Limitations and Suggestions for Future Research

Despite the insights gained through this study, certain limitations can also serve as avenues for further studies.

6.4.1 Nature of the Sample

Samples were drawn from a single-industry, which may raise concerns over the generalizability of the findings to other industries. Replications of this study are necessary to determine the applicability of this study and the magnitude of parameter estimates outside the pharmaceutical industry and to other countries.

The constructs in this study were measured constructs by a single method through self-reported responses. Therefore, care must be given to the associations found in our study as they might be inflated because of common method variance. To minimize problems associated with “same source” bias, future research could involve the collection data from, the firm (e.g., actual objective performance, customer feedback), managers (e.g., performance evaluations) and salespeople (e.g., self-reports), thus avoiding potential problems associated with common method variance (Harris and Schaubroeck 1988; cf. Spiro and Weitz 1990).

6.4.2 Validity of the Model

Our model was an early attempt to explain how IT utilization influences sales performance. The validity of our model should be further tested by comparing it to other alternative models. It is plausible, based on the marketing strategy and personal selling

literature, to develop a process model based on generally accepted selling processes. For instance, in the personal selling process (Dubinsky 1980-81; Hite and Bellizi 1985), salespeople begin with prospecting, then plan a preapproach, followed by making a presentation, then provide after-sales services. Therefore, paths in an alternative IT utilization-sales performance model could be posited from IT utilization to targeting, targeting to working smarter, working smarter to value-added selling, and value-added selling to sales performance. Alternative models should be compared by fit on several features: (1) overall fit statistics, (2) percentage of significant paths, and (3) parsimony of the model.

6.4.3 Constructs in the Model

The model was developed to accommodate selected capabilities essential in business-to-business selling and may have excluded others important in other selling situations. Future research should expand beyond the scope of this study by considering additional variables, such as customer-orientation and service orientation, involved in the IT utilization-selling capabilities sales process. Investigations into possible moderating effects, such as learning orientation, would also be worthwhile.

The measures of IT utilization, targeting, value-added selling, and customized selling were developed and tested in this study. Future research should be conducted to further validate and refine these constructs, particularly to assess the first-order or second order nature of the IT utilization construct.

Future research may include a reassessment of the construct for IT utilization. In this study, IT utilization was conceptualized based on the general functions of IT and the items were derived from specific applications used in the pharmaceutical industry. As information and digital technologies continue to evolve, sales IT will likely be upgraded

and new forms of IT (i.e. smaller handheld devices, Internet social networks, etc.) and features will be integrated.

Lastly, IT utilization and selling capabilities were mostly based on how often specific activities were being performed by the salesperson. Future studies should consider including complementary measures that assess the quality of outputs from engaging in such activities. To complement IT utilization, IT systems quality and IT information quality (DeLone and McLean 2003) could be included. These expanded assessments would provide additional insights on the phenomenon of the impact of IT utilization in sales.

