

INFORMATION TECHNOLOGY AND PROFESSIONAL SELLING: WHAT DO THE SALES PEOPLE OF TOMORROW THINK?

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This study provided an empirical look at student perceptions of information technology (IT) and its impact upon professional sales people and selling activities. Students enrolled in university level introductory professional selling classes responded to a series of statements related to IT and professional selling. Results indicated that overall student attitudes were strongly positive towards IT and selling. Managerial implications and avenues for future research are provided.

Introduction

During a recent campus visit, a casual stroll through the newly renovated halls of the college of business was revealing in terms of how students work and learn and the importance of technology in that learning system. The \$15 million renovation of the building included multiple state-of-the-art computer labs and tutoring labs with computers, printers, and classrooms with document cameras, computers with Internet and web connections, videoconferencing capability and more. Even the hallways of the building reflect student learning preferences: Wireless technology enables students in break-out rooms and common areas to log on to their laptop computers and work individually or in groups. The main travel artery through the building features computer workstations lining the corridor. In virtually any corner of the facility, students are a "click" away from access to technology linking them to everything from course registration to the University library holdings to corporate web sites around the world.

In short, an integral component of the overall design of the college of business was to acknowledge and facilitate the students' use of technology in their educational program. Colleges and universities are not the only organizations to recognize the importance of

technology (IT) in enhancing education and student skill sets. As is discussed in more detail in a following section of this manuscript, researchers have noted that business leaders around the world are devoting significant resources to the adoption of sales force automation and information technology in their selling endeavors (i.e., Hunter and Perreault Jr. 2007; Good and Schultz 2005; Honeycutt 2005). Indeed, research shows that IT is an integral component of the selling world of today and of tomorrow. Darwin (2004) reported that sales of Customer Relationship Management systems were predicted to reach \$74 billion by the year 2007. Further, the students enrolled in our professional selling and sales management courses today are the professional sales people and sales managers of the very near future. As such, this study is designed to investigate the following question: "How do students enrolled in college/university sales related courses feel about information technology as it is applied to their careers in the world of professional selling?"

Information Technology in Business

While discussion with university leaders revealed that the college of business was specifically planned to provide students with a technologically advanced learning environment, the design is also consistent with

the growing use of information technology (IT) in the world of business and commerce. King and Teo (1996), Palvia (1997), Ritter and Walter (2006), Ledingham, Kovac, and Simon (2006) and others have noted the importance of IT to organizational growth and success. Zablah, Johnston and Bellenger (2005) wrote of the importance of technology adoption in channel relationships. MacDonald and Smith (2004) investigated the significant investment industrial suppliers are making in video conferencing systems, cellular phones, web sites, and other cost-controlling IT elements. Gounaris, Panigyrakis and Chatzipanagiotou (2007) developed an instrument to assess the effectiveness of a marketing intelligence system. Curran and Meuter (2007) investigated consumer adoption of technology in service settings.

A specific area of business that has attracted the interest of researchers – and which serves as the focal point of this study -- is the relationship between technology and professional selling. Hunter and Perreault Jr. (2007), define sales technology as “ITs [information technologies] that can facilitate or enable the performance of sales tasks”, and state that the various tools of sales technology include “spreadsheets, relational database programs, Nielson/Information Resources Inc. scanner database programs, sales forecasting tools, inventory management systems, contact management programs, multimedia hardware, cell phones, graphics software, image projectors, computer-based presentations, e-mail, Web browsers, and so forth” (p. 17). They concluded through a field study that sales technology, when appropriately applied, led to both efficiency and effectiveness of sales people measured across a variety of dimensions.

This research continues an impressive stream of work in the areas of sales force automation (SFA), where sales people incorporate

technology as part of their work routine, and information technology (IT) in professional selling. Leigh and Marshall (2001) identified information technology as one of the research priorities in sales strategy and performance and their call for additional research in the area of IT and professional selling resulted in a proliferation of work. For the purpose of this study, SFA and sales person IT were used interchangeably. Shoemaker (2001) discussed several key business information technology areas: customer relationship management, sales force automation, partner relationship management, customer interaction centers, computer-telephone integration, collaboration server software, voice over internet protocol, and more. Honeycutt (2005) noted that “firms around the globe are rushing to invest in sales force technology or sales force automation” (pg. 1) and Good and Schultz (2005) called for the sales organization, in light of emerging technologies, to “identify, explore, adjust to, and exploit the needs of the marketplace in highly competitive situations” (pg. 1). Buehrer (2005) and his colleagues examined the results of SFA adoption and the perceptions salespeople held regarding SFA. Gohmann, Guan, Barker and Faulds (2005) investigated differences between sales force and management perceptions of SFA. Hunter and Perreault (2006, 2007) and Dong-Gil Ko and Dennis (2004) investigated the impact of sales force automation (SFA) on sales performance. Bush, Moore and Rocco (2005) suggested firms may be attempting to use SFA to strengthen their customer orientation. Cotteleer, Inderrieden, and Lee (2006) studied the relationship between a firm’s investment and commitment to SFA and the barriers to sales force adoption of such programs. Rangarajan, Jones and Chin (2005) examined the role of task complexity and negative repercussions of SFA technology on the adopter. Buehrer, Seneca, and Pullins

(2005) also looked at perceived barriers to the adoption of SFA by a sales force and later examined the impact of technology adoption on sales people (Senecal, Pullins, and Buehrer 2007).

Perhaps the writings of Anderson, Dubinsky, and Mehta (2007), coupled with the observation of Honeycutt (2005) provide the best summary of the importance of information technology in professional selling as well as the most compelling reason for the current study:

"Probably the most obvious and dramatic influences on personal selling today are technological innovations, especially in telecommunications. Today's most successful sales people are those who make skillful and efficient use of technology to increase their productivity in serving customers."(Anderson, Dubinsky and Mehta 2007, p. 41).

While the technology gurus are pushing sales force automation, CRM, and wireless communication/Internet access, the average salesperson appears to be overwhelmed sorting out role expectations and maintaining currency with an ever-changing set of technological tools. (Honeycutt 2005, p. 301).

With these statements in mind, the authors of this manuscript designed a study to empirically investigate how students enrolled in college-level professional selling courses – the selling professionals of tomorrow – perceive the role of IT as a tool to aid professional salespeople in the field. As businesses continue to incorporate and expand the role of technology in selling, it is important to further our understanding of how the salespeople of the future view those technologies as they prepare to embark upon their selling careers.

Table 1. Information Technology Questionnaire Items

Item Number	Statement
1	Salespeople can use information technology to gain more control over their professional lives
2	Salespeople can use information technology to add convenience to their selling activities
3	Salespeople can use information technology to become more efficient in completing sales related activities
4	Salespeople can use information technology to become more effective in selling products and services
5	Salespeople can use information technology to add flexibility to their selling activities
6	Salespeople can use information technology to better satisfy the needs of their customers
7	Salespeople can use information technology to learn more about their competitors
8	Salespeople can use information technology to become better informed about the products/services they sell

The Study

The survey research method was used in the study and data were collected from students enrolled in introductory professional selling courses in AACSB accredited schools of business. Students at two universities – one located in the upper Midwest and the other in the southeastern region of the United States – participated in the study. The survey instrument included eight items (see Table 1) related to student perceptions of how information technology might impact the career activities of a professional salesperson. The items were written based upon Erffmeyer and Johnson's (2001) robust definition of technology in professional selling: technology in the form of cellular phones, faxes, personal computers, databases, the Internet, and electronic data interchange systems. The paper-and-pencil instrument, which also included several demographic questions, was distributed by the primary researchers during regularly scheduled classroom sessions. The

data were collected prior to the lectures and/or discussions of sales force automation topics in the course. All participants were informed that their participation in the study was voluntary and that their individual anonymity would be preserved.

Participants

Participants in the study were volunteer university students enrolled in university level introductory professional selling classes. A total of 123 students participated in the study. Slightly more than 47% of the participants were female and 73% currently held part-time jobs while another 12% held full-time jobs. Slightly more than 15% of the participants indicated that they had at some time held a professional selling job. (It should be noted that the authors did not define professional selling for this item. Participant responses indicated a range of selling jobs, from retail sales to industrial selling). Table 2 presents a more detailed profile of the participants.

Table 2 Demographic Profile of Participants*

Demographic Variable	N	%
Gender		
Female	57	47.1%
Male	58	47.9%
Job Status		
no job	13	10.7%
part-time job	88	72.7%
full-time job	14	11.6%
Professional Selling Experience		
Yes	31	25.6%
No	83	68.6%
*Note: Due to non response on some items, totals and category responses may differ		

Findings and Discussion

The primary research question in the study was straightforward: “How do students enrolled in university level professional selling courses view information technology in terms of impacting professional sales people?” In order to empirically investigate this research question, participants responded to a series of 8 statements (See Table 1) using a 5-point Likert scale with endpoints of disagree completely (1) and agree completely (5). Factor analysis revealed that the 8 statements loaded, as predicted, on two separate dimensions. Items 1 – 5 loaded consistently on a single dimension which the authors labeled as “Selling Activity Items.” Items 6 -8 formed a second dimension labeled as “Peripheral Elements of Selling.”

Descriptive statistics revealed that, for the most part, students at both universities held strongly positive attitudes towards IT and professional selling. As shown in Table 3, 81% of the participants agreed (53.7% of participants agreed somewhat, 27.3% agreed

completely) that IT would help salespeople gain more control over their professional lives. Interestingly, only 2.5% of the respondents indicated disagreement with the statement that IT would provide salespeople with more control over their profession (slightly more than 13% of the respondents indicated neutrality to this item by circling a “3” on the 5-point Likert scale). Over 94% of the respondents, with nearly 43% signifying complete agreement that IT would add convenience to selling activities. More than 87% of the participants agreed (37.2% indicated complete agreement) with the statement that IT would make the salesperson more efficient in his/her selling activities, while 88% agreed that salespeople could use IT to increase their selling effectiveness (nearly 35% indicated complete agreement and less than 1% indicated disagreement). Slightly more than 82% of the participants agreed that IT would add flexibility to a salesperson’s selling activities.

The final three information technology items on the instrument focused not on activities directly related to professional selling but rather on more peripheral elements of selling.

Table 3 Student Responses to Information Technology Items

Item Number	Scale Response Categories					Item Mean
	Disagree Completely 1	Disagree Somewhat	Neutral	Agree Somewhat	Agree Completely 5	
1	0%	2.5%	13.2%	53.7%	27.3%	4.09
2	0%	0%	2.5%	50.4%	43.8%	4.43
3	0%	0%	9.1%	50.4%	37.2%	4.29
4	0%	.8%	7.4%	53.7%	34.7%	4.26
5	0%	0%	11.6%	53.7%	31.4%	4.21
6	0%	.8%	10.7%	49.6%	35.5%	4.24
7	0%	0%	2.5%	45.5%	48.8%	4.48
8	0%	0%	4.1%	39.7%	52.9%	4.50

Descriptive statistics showed that slightly more than 85% of the participants agreed that IT could be used to better satisfy customer needs, with 35.5% of the respondents indicating complete agreement with the statement and less than 1% indicating disagreement. Almost 95% of the participants agreed that salespeople could use IT to learn about their competitors, with 49% indicating complete agreement with the statement. Finally, nearly 93% of the participants – with almost 53% indicating complete agreement -- concurred that IT could be used by salespeople to become better informed about the products/services they sold.

Implications for Managers and Educators

As indicated in the preceding sections, students enrolled in professional selling courses exhibited strong agreement with statements that outlined positive effects for salespersons that utilize information technology tools. These students belong to a segment of population that has grown up with technology, is familiar with various representations of the same, and is accustomed to using information technology tools in education, and elsewhere. This group of students, accordingly, has the capability of adopting and using information technology in sales and sales management more readily than any previous generation. A primary task for sales organizations in the near future, then, may not involve facilitating sales technology adoption by its salespeople so much as it would entail training these information-technology-savvy salespeople on how best to use available technology to develop long term relationships with customers. This change in emphasis would be a substantial departure for sales organizations as they have struggled over the past two decades to convince salespeople to adopt sales force automation tools. Of

course, sales organizations would still face the task of convincing salespeople that they are not being “policed” through SFA tools.

Our sales students (and other current students, as well) are familiar with several of the information technology tools previously mentioned and view that information technology as a salesperson’s friend. Our task as sales educators, then, is to identify and then familiarize these students with technology tools that they have not been exposed to yet, thus enhancing sales students’ readiness for careers in sales and sales management.

The results of the current study, if generalized across students undertaking sales courses in various universities, suggests that we have a group of potential salespeople who are comfortable with several sales technology tools, and who will readily use these tools in their selling professions. This could be an opportunity for interested sales organizations and educational institutions to enter into partnerships wherein students in selling courses are exposed to and learn about integrated sales force automation tools. The participating firms gain by having a more tech-savvy pool of candidates for future sales positions and the involved universities gain by being able to offer an important educational component to future salespeople.

Limitations and Future Research

While the findings reported in this paper are interesting, and do provide a glimpse of how the professional sales people of the future perceive the role of information technology in professional selling, the results must be interpreted with prudence. For example, the data in the study were collected at only two universities and involved a relatively small number of students. As such, the findings should not be generalized to a larger, more diverse sample of students. It would be

interesting to replicate and extend this study with students enrolled at not only additional universities, but also with students enrolled in a variety of sales related courses. The sales curriculum at the universities in the Sales Center Alliance (SCA) would offer such diversity of courses and, if data could be collected in those courses, would subsequently offer a more detailed and in-depth view of student perceptions of and attitudes towards information technology. It would be important to include a sample of courses taught at schools belonging to the SCA and also from schools NOT belonging to the SCA.

Another avenue for future research would involve a longitudinal study of attitudes towards IT in professional selling. More specifically, it would be enlightening if in addition to measuring student perceptions while those students are enrolled in sales related courses, researchers could re-assess the perceptions of those same students after they have embarked on a professional selling career. Such a research program could allow for more detailed statistical analyses to investigate the effect, for example, of such factors as length of time in the field, on-the-job IT training, types of IT/SFA implemented in the organization, length of time such programs have been implemented, and so forth. It would also be beneficial to survey active professional sales people and sales managers and to compare their perceptions with those of students.

It would also be interesting to explore potential generational differences in perceptions of IT in professional selling. The relevant literature suggests that generational differences in knowledge and comfort with technology and change might lead to predictable differences in the adoption of IT

in the selling world. For instance, Baby Boomers, those individuals born between 1945 and 1964, comprise some 45 percent of the workforce (Harbert and Dudley 2007). Boomers tend to have excellent social skills and are used to working long hours as they strive for success. At work, change is best accepted if that change is presented in a way that results in minimal conflict (Harbert and Dudley 2007).

Members of Generation X (generally defined as those individuals born between 1965 and 1980) make up about 30 percent of the workforce (Harbert and Dudley 2007). Gen-Xers, the children of the Boomers, have been described as having fewer social skills than did their parents and as having excellent technical skills (Eisner 2005; Fancis-Smith 2004; McGuire, Todnem and Hutchings 2007). Gen-Xers have also been depicted as being independent and eager to embrace change and to adapt to new technologies (Harbert and Dudley 2007). X-ers also believe that workplace security can be achieved by keeping their skills up-to-date (Eisner 2005). Further, Gen-Xers seek to accomplish tasks in ways that are smart and fast (Tulgan 2004) and possess technical skills which allow them to move into management positions relatively quickly.

People born between the years of 1981 and 2000, members of Generation Y, make up some 15 percent of the workforce and share some characteristics with the Gen-Xers. Gen-Yers were literally raised in a world of rapidly expanding and evolving technology. Y-ers have been described as the most technologically literate and capable generation in history (Dayan 2005) and are accustomed to and comfortable with the internet and rapid access to information (Harbert and Dudley 2007). They seamlessly integrate technology into the workplace and take advantage of technology in their jobs (Strombom 2009;

Throckmorton and Gravett 2007). Members of this generation are, in many ways, the drivers of technological progress and innovation and as such, might be expected to introduce ground-breaking electronic tools in the workplace.

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