



Proceedings of GLOGIFT 08
June 14-16, 2008
Stevens Institute of Technology
Hoboken, NJ, pp. 226-238

SALES FORCE AUTOMATION: SALES PERSON'S AND MANAGEMENT'S PERCEPTION: A STUDY IN INDIAN CONTEXT

Deepali Singh*, Mahim Sagar and D. P Agrawal*****

ABSTRACT

The nature of sales has changed dramatically over the past 15 years. It undoubtedly comes as no secret to most marketers that they must listen to their customers like never before. The problem, however, is that many salespeople and consultants lack the tools and skills that allow them to know their customers' wants and needs well enough to satisfy them. And, sales force automation technology has provided help in this endeavour. This study is an outcome of an exploratory study that used the expert opinion polling method to understand the various issues of concern in SFA and the possible measures and also a survey conducted to examine the Sales Person's and Management's Perception about Sales force Automation technologies.

Introduction

Salespeople have always used some kind of technology to help them manage the knowledge necessary to do their jobs. In the last few decades, sales automation technology was in the form of telephone logs, portable recording machines, card files, and three-ring binders. Nowadays the technology encompasses contact management systems, personal organizers, proposal generation tools, and product configurators. With the rapid increase in computing capability available to companies and individuals, and the equally dramatic decline in the price of this computer technology, more and more sales forces are being equipped with tools that are intended to make them more successful. Companies are investing significant amounts of money in information systems technologies to be used in activities related to the sales and marketing efforts of company personnel. The application of information systems technologies to sales and marketing activities has given rise to the term Sales Force Automation.

SFA systems consist of centralized database systems that can be accessed through a modem by remote laptop computers using special SFA software (which is often company specific). The modem can be connected to either a conventional phone line or a cellular phone line. Thus, in an SFA system, a salesperson can access a centralized database system at any time through their laptop computer to get constantly refreshed information regarding various facets of the job, e.g. contact information, inventory and shipping statistics, customer service information, transportation logistics, and even immediate access to commission figures (Blodgett, 1995a). An SFA system also enables a salesperson to file regular reports electronically without having

* Associate Professor, Indian Institute of Information Technology and Management Gwalior (IIITM-G)

** Assistant Professor, Department of Management Studies
Indian Institute of Technology Delhi(IITD), New Delhi

*** Founder Director Indian Institute of Information Technology and
Management Gwalior (IIITM-G) and at present Member Union Public Service Commission (UPSC)

to travel to the central office in person. The result is greatly improved efficiency and productivity (Colombo, 1993; McLachlan, 1992; Swenson and Parrella, 1992; Taylor, 1993a, 1994).

Literature Review

The difference between a successful or unsuccessful experience has far reaching consequences. Estimates of the cost for adding technology in the sales process range from between \$5,000 and \$15,000 per salesperson (Hanaman, 2000; McCrea 1998), depending upon the levels of technology implemented. Reports on the outcome of success have varied greatly. Early reports on sales force automation (SFA) cited its success in decreasing costs (Taylor 1993a) or showing positive short-term returns on investment (Taylor 1993b). The writings of SFA advocates, such as Virtual Selling authors Siebel and Malone (1996) and Rethinking the Sales Force authors Rackham and DeVincentis (1999), have helped foster the notion that the impact on sales as a result of SFA implementation will be deemed successful. However, these reports contrast sharply with that of Blodgett (1995), who found that nearly 75 percent of SFA efforts are considered failures. More recently, Schafer (1997) noted only a slight improvement; the failure rate had dropped to 60 percent. Clearly, sales force automation is a strategic issue for company management. There are both benefits and risks involved.

An increasing number of companies are adopting SFA systems in order to gain an edge in the highly competitive global marketplace. Yet, very little attention has been focussed on SFA in the academic literature. This is of especial concern because there is evidence that a substantial proportion (almost 75 percent) of SFA projects end in failure (Blodgett, 1995b)

Several authors have noted that corporate marketing departments have generally been the last area where information technologies have been adopted (Goslar 1987; Rivers and Dart 1999). While there have been a host of anecdotal SFA articles written in the popular press, the number of empirical studies researching automation of the sales process has been limited. A review of articles published in the Journal of Personal Selling and Sales Management indicates that the first articles on the subject were, in fact, published over 20 years ago (e.g., Klompmaker 1980, 1981; Comer 1981-82). The early articles focused on adoption of the personal computer (Collins 1984, 1985) while the later ones have focused on the application of other individual technologies such as cellular phones (Swenson and Parrella 1992), LANS (Taylor 1993a, 1993b), use of laptops (Collins 1988), software programs (e.g., Chonko, Tanner and Smith 1991), electronic data interchange (Hill and Swenson 1994), and group support system software (Dishman and Aytes 1996). None examined the impact of implementing all the technologies concurrently.

Within the past three years this void has started to be addressed as several authors have reported their findings on automation of the sales process. Parthasarathy and Sohi (1997) proposed a two-stage model outlining the myriad of variables involved with planning, purchasing, training, and use of information technology by salespeople. The first stage of the model identifies the theoretical impact of organizational issues that influence the decision to adopt an SFA system. The second stage of the model explores the factors that potentially influence the adoption of a SFA system by individual salespeople. The authors identified future research, which should include identification of the costs and benefits of SFA. Additional research should be done from the perspective that automating the sales force is just one part of the organization's computing systems.

Keillor, Bashaw and Pettijohn's (1997) research examined the impact of SFA on a more micro-level, that of the individual salesperson. Using sales representatives from a professional association they explored the relationship between attitudes towards technology, experience, and productivity. Results from their survey of 126 respondents indicated that firms with a more

experienced sales force might have the greatest difficulty in successfully implementing a technology-based sales program.

This paper focuses on importance of Sales force Automation in Sales Management and selling process, discusses the adoption factors influencing the organisational adoption of SFA Systems and presents the finding of the study conducted to examine the sales Person's attitude towards technology applications and Management's expectations, Critical Issues and outcomes of automating the sales process.

Need for SFA

Need for Adoption of SFA technologies may be attributed to the following: The key challenges companies face with their sales organizations today can only be solved by better information sharing. That's the conclusion of a recent study by the Boston Consulting Group, which analyzed the challenges faced by sales organizations in interviews with 75 senior executives. Among their findings

Complexity: It is getting more and more difficult to make a sale. Products themselves are getting more complicated

Re-engineering: the new corporation is the increasingly flat organizational structure. Many of the layers of middle management, whose historical role was to condense raw information flowing upward to top management and to elaborate on instructions flowing downward to line employees, have been stripped away. Replacing this hierarchy of managers are information networks, which automatically download new information to salespeople or present summaries to them the next time they log on to the automated information system

Global Competition: In this age of increased international competition from nations with high levels of automation or low levels of employee pay, the need to cut costs is paramount. Agile corporations are lean corporations, with greater resources being shifted to product development (to remain ahead of the competition), manufacturing (to meet rapidly shifting demand), and customer service (to keep customers for the multiple generations it will now take to show a profit on product development Sales professionals spend too much time reinventing the wheel. With experiential information unavailable or difficult to access, sales teams stop asking, "Who has faced this situation before?" and put their heads down to solve the problem themselves.

Low performers lag far behind top performers, dragging down the performance of the entire organization. Typically, top performers get and stay that way because they actively seek out new ways to improve their effectiveness.

High turnover is a continual drain on knowledge and experience, and new hires can never ramp up fast enough. If it takes 18 months to ramp up a representative, and average tenure is 19 months, there's a problem.

Cross selling is rarely optimized. It's often impossible for sales professionals to stay current on the broad product lines that market leaders find they must offer. If only sales teams could pack up the relevant product experts in a bus to take on every sales call.

Sales cycles have extended, due only in part to customer hesitancy. Too often, vendors themselves are to blame, as sales professionals can't find relevant expertise within their Organization to address customer questions or objections properly.

Customer insight flows in from the field in a slow trickle, filtered many times over. There's no fast pipeline from the reps in the field that highlights key customer challenges.

Productivity: Though rarely mentioned, productivity will provide the most important impetus for re-engineering sales. In fact, so overwhelming is the leverage that results from increasing the productivity of sales that most companies will embrace sales automation for this reason alone.,

SFA technologies are needed for

- Managing Lead Generation
- Reducing the Cost of Sales
- Eliminating Revenue Surprises
- Simplifying the Relationship Management Process
- Doing It from Anywhere and at Anytime

Factors Influencing Organizational Adoption of SFA Systems

The decision to automate the sales force can be quite difficult because the investments are high, the technology rapidly become obsolete very quickly and there are no short term gains to justify it. SFA innovation will benefit certain firms more than others. The characteristics include the competitive environment, communication patterns within the industry, organizational characteristics and other factors.

Competitive environment

Industry Type: The adaptation of technological innovation is likely to be greatest in industries operating in oligopolistic environment because, under oligopoly, benefits of adoption increase when competition decreases. The reasons for adaptation of SFA innovation in oligopolistic environment may be two fold. If the industry is such that each firm is offering similar product at similar price and using similar marketing strategies, SFA provides the firm with the competitive edge to the firm by reducing cost, increasing information responsiveness, enhancing customer retention, and by equipping the firm with the ability to react more quickly to environmental changes. Second, the adoption of technological innovations may also be used to maintain barriers of entry.

Demand Uncertainty: Higher uncertainty is related to greater need of changing technology and a faster rate of adoption in order to survive. So one can expect firms in an industry characterized by considerable demand uncertainty to adopt SFA related innovation more quickly than firms operating in a relatively stable environment.

Communication Links within and Between Industries: The organization that have communication links that look outward from their own industry to other industries for information are more likely to be innovators within their own industry with respect to adoption of new technologies. Because for these changes the message may not be confined to the industry itself but may come from large number of sources outside the industry. Also the more competitive is the industry; more are the chances of firms turning to outside sources for information. The sources may include suppliers, customers, consultants or industry groups.

Organizational Characteristics: Centralization facilitates the acceptance of innovations that require organizational standardization for their complete and proper adoption. SFA systems depend on organizational standardization in order to earn productivity gains. Therefore large centralized organizations are more likely to adopt technological innovations, including SFA than small non-centralized ones. Organization complexity may also promote the adoption of innovation, because complex organizations are more likely to have specialized wings dealing with specific areas.

Other Factors: Several other factors may also influence a firm's propensity to adopt new

innovations for sales force. These factors include marketing system of firm, individual adoption, previous experience etc. If firm has a well coordinated vertical marketing system that permits information flow between the channel members the adoption of SFA will be facilitated because SFA will provide information that can enhance the performance of entire vertical system. Similarly if organization has successfully adopted computer technology for other purposes and employees are computer literate it will facilitate adoption of SFA because employees and decision makers will be exposed to the benefits of computerization. Further the firm may also save cost if it already has a centralized database oriented management system in place, and if an SFA module can be developed for such a system.

SFA: Sales Person's and Management's Perception

A study was conducted at Indian Institute of Information Technology and Management, Gwalior with the aim to gain insights into means for successfully implementing new technologies in the sales force and process management. The study had the specific objectives to measure the sales person's attitude towards the use of technology and applications in sales process management and explore the expectations, practices and outcomes of companies involved in automating sales practices

Two sets of questionnaires were administered one to Sales people and another to Top management of companies. The respondents firms had annual sales that ranged from Rs50 lakhs to Rs 4.68 billion. More or less, all the respondents had national sales forces. The size of the companies ranged from 20 sales persons to 800 sales persons with an average figure of 250. Majority of the sales persons had experience above five years

A. Sales Person's Attitude towards Technology Applications

For measurement of sales person's attitude towards technology applications the respondents were asked to indicate the extent to which they agreed or disagreed with each item based on the likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Table 1:

I would like to see part or all of my job done by a computer	3.75
Computerizing part of my job would make me more competitive	5.75
Using a computer would (has) significantly increase(d) my sales Productivity	3
Using a computer would (has) significantly increase(d) my satisfaction with my job	4.5
I like the idea of learning new ways to use a computer	4.25
I would discourage anyone from allowing a computer to become an active part of the selling process	1.75
I am concerned that I might lose my job because of the increasing emphasis on computer technology in sales	2.5
I think the introduction of computer technology will result in a loss of employees' privacy	3.25
I would not feel comfortable using a computer to interact with customers	2.5

≥ 3 as disagree

≤ 5 as agree

$3 < \geq 5$ as neutral

All analysis is done based on these conventions

Some of the **meaningful derivations** made out of the analysis are:

- Salesmen were very undecided about the impact of this technology on their productivity and output.
- They however agree that computerizing a part of their job would make them more productive.
- They are again undecided on letting computer do their entire job.
- They don't agree that computer has significantly increased their sales.
- They are neutral on whether the computer has increased their satisfaction.
- Sales persons are willing to undergo training or learn the ways of working with the computer.
- They are neutral on whether this system will result in loss of their privacy or not.
- They want computer to be a part of their selling process and also say that they would not feel uncomfortable while using a computer to interact with customers.

Implications

- The more educated, venturesome, groups of people are naturally likely to make full use of the SFA system. It is a good idea to target these individuals and give them special training to make sure that they are comfortable, happy and think highly of the new system.
- SFA systems are invariably complex and require considerable learning. Training programmes is a great way in enhancing its full use.
- To make the sales people feel that they are not bound by the management the SFA implementation should be flexible at least in the initial implementation phase. Make more use of the sales people in all decision making issues relating to SFA planning and implementations.

B. Management's Expectation, Critical Issues and Outcomes of automating the sales process

Legend for Chart:

A - Questions/Responses

B - Percent of Cases

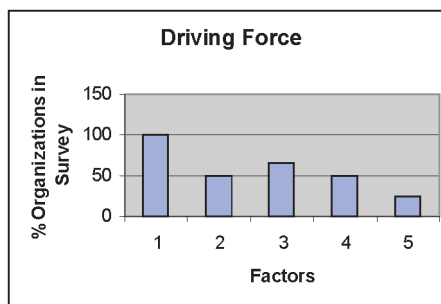
• **What were the organization's goals in automating the sales force?**

A	1	2	3	4	5
Improve efficiencies	100	0	0	0	0
Improve customer contact	0	0	50	0	0
Increase sales	0	66	0	25	0
Decrease costs	0	0	0	0	50
Improve accuracy	0	25	25	25	0



Who or what was the primary driving force behind the SFA effort?

A	B
Management	50
Sales representatives	0
Combination of above	25
Competition	25
Clients	0



Implementation Issues

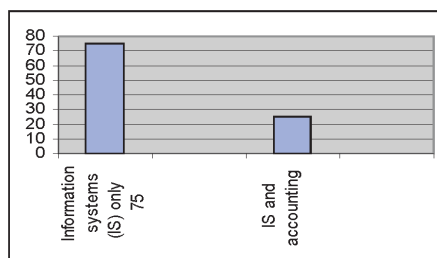
Legend for Chart:

A - Questions/Responses

B - Cumulative Percent

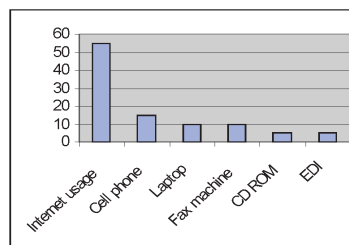
• What other units accepted responsibility for the SFA efforts?

A	B
Information systems (IS) only	75
Internal team	0
IS and accounting	25
Vendor	0
Total Percent	100



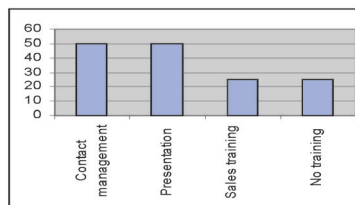
• What technologies were used in your SFA effort?

Internet usage	55
Cell phone	15
Laptop	10
Fax machine	10
CD ROM (i.e., data storage and retrieval)	5
EDI	5



• What type of training was incorporated in the SFA effort?

Database and contact management software	50
Presentation software (i.e., PowerPoint)	50
Sales training (i.e specific to SFA)	25
No training was conducted	25



After Automation Activities

• After automation how do you perform prospecting activities, client communication and record keeping activities?

Legend for Chart:

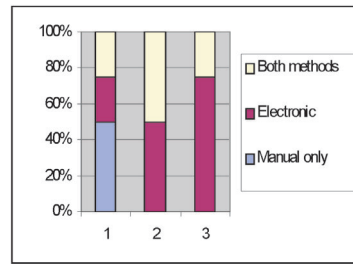
A - Questions/Responses

B - Cumulative Percent Prospecting

B - Cumulative Percent Communication

B - Cumulative Percent Record keeping

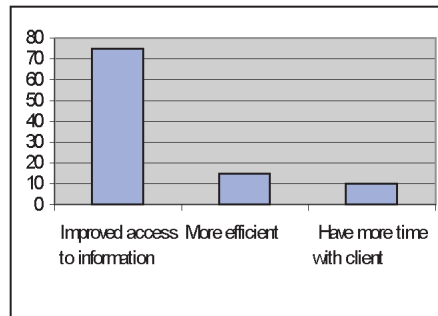
A	B	C	D
Manual only	50	0	0
Electronic only	25	50	75
Both methods	25	50	25
Total Percent	100	100	100



SFA Benefits, Experiences and Changes

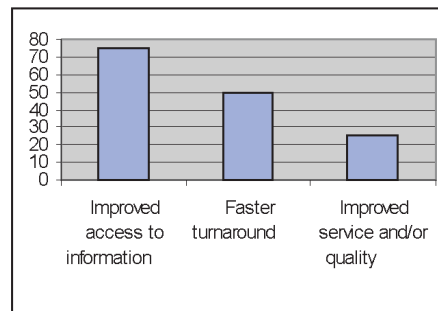
- As a result of SFA, what are some benefits experienced by the sales force?

Improved access to information	75
More efficient	25
Have more time with client	15



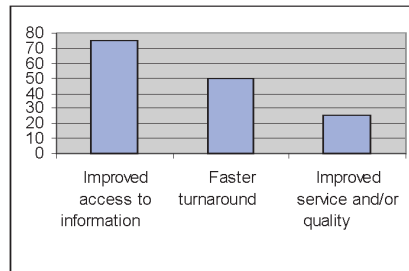
- As a result of SFA, what are some benefits experienced by the client?

Improved access to information	75
Faster turnaround	50
Improved service and/or quality	25



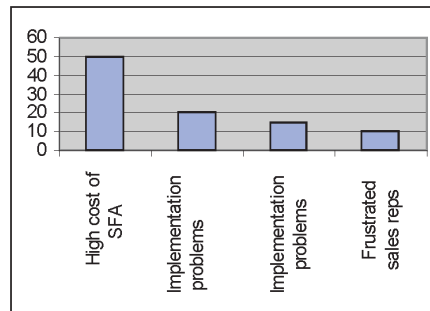
- What are some positive outcomes as a result of SFA?

Improved communication/customer	50
More efficient salesforce	20
Faster revenue generation	20
Better monitoring/forecasting of sales	10



• **What are some negative outcomes as a result of SFA?**

High cost of SFA	50
Implementation problems	20
Implementation problems	15
Frustrated sales reps	10



• **How has SFA most changed the firm?**

Increased communication/client	75
No significant changes	25
Improved turnaround times	75
More informed than competitors	0
Negatively	0

Outcome Issues

Legend for Chart:

A - Questions/Responses

B - Cumulative Percent

• **What was the biggest unexpected problem the organization encountered during the SFA process?**

A	B
No unexpected problems were encountered	50
High costs of training	50
Hardware/software problems	25
Increased turnover of reps	25
Reps resistance to change	25

SFA Satisfaction and Changes

Legend for Chart:

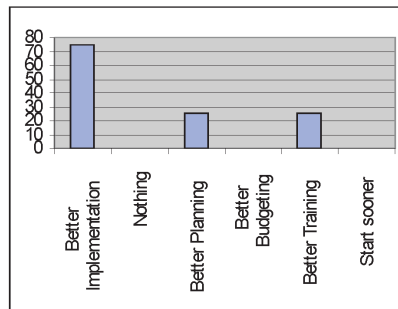
- A - Questions/Responses
- B - Cumulative Percent Management
- C - Cumulative Percent Sales force
- D - Cumulative Percent Customer

• **How satisfied are people with the SFA efforts?**

	A	B	C	D
Very satisfied		25	50	25
Somewhat satisfied		50	50	25
Neutral		25	0	50
Somewhat unsatisfied		0	0	0
Very unsatisfied		0	0	0
Total Percent		100	100	100

• **What one thing would you do differently if given a chance?**

Better Implementation	75
Nothing	0
Better Planning	25
Better Budgeting	0
Better Training	25
Start sooner	0



The results of the study are classified into three sections: **goals and expectations, implementation and outcomes** as per the objectives.

• **Goals and Expectations**

Responses clearly indicated that increasing organizations efficiencies is the most identified goal. This was confirmed by almost 100% of the respondents. The second most important point is increasing the sales .The primary driving force behind the SFA efforts is found to be the management’s initiatives and efforts.

A typical response was “**Our goal is to get as many things automates as possible**”. Management of most of the firms feel that they have achieved most of the goals. Nearly half of the respondents said that improving customer contact is their goal. But the important points like improving sales and decreasing costs were seen as the by product of the entire process.

- **Implementation Issues**

The IS department (Information systems department) is identified as the main unit for implementation. Only one fourth of the organizations surveyed incorporated a team approach in planning their SFA efforts. It was found that around 75% of the firms gave training prior implementation in full run. Out of this 55% trained on presentation software and 50% on database. Surprisingly 25% did not offer any training at all.

- **Outcome issue**

According to the respondent's communication with the client were more likely to be impacted by SFA than were prospecting activities. Respondents were asked to identify SFA experiences and negative experiences using SFA. According to respondents positive experiences reflected access to information and improved service or quality in the sales process. The negative responses reflected higher costs, lengthy training times, implementation problems and the level of frustration experienced by most of the people during SFA changeover.

Perceived satisfaction with SFA efforts was addressed from the perspective of the management. Nearly 85% of the management and sales force groups were perceived as being somewhat satisfied.

Implications

- Organizations must be as explicit as possible in defining the goal of the implementation. Elusiveness of the goal of SFA should be avoided
- SFA is a team effort. Managers must be prepared to work with other departments prior to, during implementation, and for the duration of the project. Departments should include representatives from Information Technology, telecommunications and Accounting
- Training to support SFA systems needs to become a priority and budgets need to reflect the realities of the cost of training. Immediate, thorough access to information by both client and sales representative is a necessity. This goal should be articulated and evaluated regularly.

A multi disciplinary committee should be involved in the initial planning process. Groups whose input was often overlooked including new hires should also be involved. Sales personnel should also be involved in the first planning meeting.

Conclusion

The experience of thousands of companies shows the potential of these powerful, versatile software packages. Assuming, of course, salespeople can be convinced to use them. Sales-force automation isn't just for big companies anymore. Only a few years ago, options were expensive and difficult to implement. But today, automating sales and other business processes is easily within the reach of many midsize companies. Given the pervasiveness of technology in our society, this suggests that sales-based technology applications will need to become an active part of buyer-seller interactions in the future. At the same time, rather than being viewed as an environmental threat, these new technologies should be seen as a means to increasing productivity and as a solution of some of the problems traditionally faced by sales managers

References

- Baldrige, J.V. and Burnham, R.A. (1975), "Organizational innovation: individual, organizational, and environmental impacts," *Administrative Science Quarterly*, 20, June, 165-76.
- Barnett, H.G. (1953), *Innovation: The Basis of Cultural Change*, McGrawHill, New York, NY.
- Burt, R.S. (1987), "Social contagion and innovation: cohesion versus structural Equivalence," *American Journal of Sociology*, 92, May, 1287-135.
- Blodgett, M. (1995), "Vendor Tries to Simplify Sales Force Automation," *Computerworld*, 30, 62.
- Chonko, Lawrence B., John F. Tanner, Jr. and Ellen Reid Smith (1991), "Selling and Sales Management in Action: The Sales Forces' Role in International Marketing Research and Marketing Information Systems," *Journal of Personal Selling and Sales Management*, 11 (Winter) 69-79.
- Comer, James M (1981-1982), "Invited Essay: Sales Management and the Computer: Prospects for the 1980's," *Journal of Personal Selling and Sales Management*, 2 (Fall/Winter), 6-9.
- Collins, Robert H (1984), "Microcomputer Applications in Selling and Sales Management: Portable Computers: Applications to Increase Salesforce Productivity," *Journal of Personal Selling and Sales Management*, 4 (November), 75-79.
- Collins, Robert H (1985), "Microcomputer Applications in Selling and Sales Management: Microcomputer Systems to Handle Sales Leads: A Key to Increased Productivity," *Journal of Personal Selling and Sales Management*, 5 (May), 77-83
- Collins, Robert H (1988), "Microcomputer Applications: The Perfect Travelling Companion: Increasing Sales and Marketing Executive Productivity," *Journal of Personal Selling and Sales Management*, 8 (May), 67-70.
- Colombo, G.W. (1993), "The next generation," *Sales and Marketing Management*, 67-9.
- Dishman, Paul and Gregg Aytes (1996), "Sales Technology Applications: Exploring Group Support Systems in Sales Management Applications," *Journal of Personal Selling and Sales Management*, 16 (Winter), 65-77.
- Ettlie, J.C. (1983), "Organizational policy and innovation among suppliers to the food processing sector," *Academy of Management Journal*, 26(1), 27-
- Goslar, Martin D. (1987), "Marketing and the Adoption of Microcomputer: An Application of Diffusion Theory," *Journal of the Academy of Marketing Science*, 15 (Summer), 42-48.
- Granovetter, M.S. (1973), "The strength of weak ties," *American Journal of Sociology*, 78(6), 1360-80.
- Hannaman, David W. (2000), "How Sales Automation is Changing the Organization," <http://www.c3i-inc.com/art_organization.htm>.
- Hill, Ned C. and Michael J. Swenson (1994), "Sales Technology Applications: The Impact of Electronic Data Interchange on the Sales Function," *Journal of Personal Selling and Sales Management*, 14 (Summer), 79-88.
- Keillor, Bruce D., R. Edward Bashaw and Charles E. Pettijohn (1997), "Salesforce Automation Issues Prior to Implementation: The Relationship Between Attitudes Toward Technology, Experience and Productivity," *Journal of Business and Industrial Marketing*, 12 (No. 3 / 4), 209-219.
- Kimberly, J.R. (1978), "Hospital adoption of innovation: the role of integration into external information environments," *Journal of Health and Social Behavior*, 19, December, 361-73.
- Klomp maker, Jay E. (1980-81), "Incorporating Information from Salespeople into the Marketing Planning Process," *Journal of Personal Selling and Sales Management*, 1 (Fall/Winter) 76-82.
- McCrea, Philip N. (1998), "Cost Justifying Sales Force Automation Investments" <<http://www.c3i-inc.com/news/articles/wpctben.htm>> (viewed 15 June 1998).
- Midgley, D.F., Morrison, P.D. and Roberts, J.H. (1991), "The nature of Communication networks between organizations involved in the diffusion of Technological Innovations," *Advances in Consumer Research*, Holman, R.H. and Solomon, M.R. (Eds), No. 18, Association for Consumer Research, Provo, UT, 635-43.

Deepali Singh, Mahim Sagar and D. P Agrawal

- Parthasarathy, Madhavan and Ravipreet S. Sohi (1997), "Salesforce Automation and the Adoption of Technological Innovations by Salespeople: Theory and Implications," *Journal of Business and Industrial Marketing*, 12 (No. 3 / 4), 196-20
- Porter, M.E. (1979), "How competitive forces shape strategy," *Harvard Business Review*, 57, March-April, 137-45.
- Porter, M.E. (1980), *Competitive Strategy*, The Free Press, New York, NY.
- Rackham, Neil and John DeVincentis (1999), *Rethinking the Sales Force: Redefining Selling to Create and Capture Customer Value*, New York: McGraw Hill
- Reinganum, J.F. (1981), "Market structure and the diffusion of new technology," *Bell Journal of Economics*, 12, Autumn, 618-24
- Rivers, L. Mark and Jack Dart (1999), "Sales Technology Applications: The Acquisitions and Use of Sales Force Automation by Mid-Sized Manufacturers," *Journal of Personal Selling and Sales Management*, 19 (Spring) 59-73.
- Robertson, T.S. and Gatignon, H. (1986), "Competitive effects on technology diffusion," *Journal of Marketing*, 50, July, 1-12.
- Rogers, E.M. (1983), *Diffusion of Innovations*, The Free Press, New York, NY.
- Siebel, Thomas and Michael Malone (1996), *Virtual Selling. Going Beyond the Automated Sales Force to Achieve Total Sales Quality*, New York: The Free Press.
- Schafer, Sarah (1997), "Supercharged Sell," Inc., *Technology Supplement*, 19 (June 17) 42-51.
- Slater, D. (1993), "Payback is difficult to quantify," *Computerworld*, 27, September 20, 129.
- Swenson, Michael J. and Adilson Parrellan (1992), "Sales Technology Applications: Cellular Telephones and the National Sales Force," *Journal of Personal Selling and Sales Management*, 12 (Fall) 67-74.
- Taylor, Thayer C. (1993a), "Getting in Step with the Computer Age," *Sales and Marketing Management*, 145 (March), 52-9.
- Taylor, Thayer C. (1993b), "Computers Bring Quick Return," *Sales and Marketing Management*, 145 (March), 52-9.
- Khandpur, Navtej (kay) and Weavers, Jasmine (1998), "Sales Force Automation using web technologies".
- www.gartner.com
- www.crmcommunity.com
- www.crmguru.com