Achieving Customer Knowledge Competence: Managing Customer Relationship Management Programs Strategically

Alexandra Campbell
Associate Professor, Marketing
Schulich Business School
York University
4700 Keele Street
Toronto, Ontario
M3J 1P3
CANADA
tel: (416) 736-2100 ext 77956
fax: (416) 736-5687
email: acampbel@schulich.yorku.ca

Achieving Customer Knowledge Competencies:
Managing Customer Relationship Management Programs Strategically

Abstract

One of the major challenges faced by contemporary organizations is the development of internal processes to assist organization-wide learning about a firm's customer base**.** While increasingly demanding customers have prompted many firms to implement customer relationship management programs, little is known about whether and how such programs help firms achieve customer knowledge competencies to create strategic advantages. This research proposes a conceptual framework to provide guidance to firms about how to manage their customer relationship management programs to achieve strategic benefits. This framework is then validated based on a series of seven case studies with Canadian firms which have implemented customer relationship programs.

Introduction

Customer Relationship Management (CRM) has become the latest buzzword in the academic and managerial press. While CRM has been defined in numerous ways (Morgan and Hunt 1994; Berry and Parasuraman 1993; Gronroos 1995), elements common to all definitions include leveraging technology to engage individual customers in a meaningful dialogue so that firms can customize their products and services to attract, develop and retain customers. CRM initiatives have grown rapidly over the past few years due to the great strides made in information technology. Modern CRM software packages include front-office applications that access customer and product information as well as back-end systems including financials, inventory and ERP (Enterprise Resource Planning).

Various researchers have extolled the benefits of CRM in enabling more effective marketing (Grant and Schlesinger 1995) by creating intelligent opportunities for cross selling (Hill 1998) and faster new product introductions (Ruediger, Grant-Thompson, Harrington and Singer 1997). But implementing a new technology alone, to customize products and services, does not guaranteed such results. From a managerial perspective, many firms now know quite a lot about the behavior of their customers but little about how management should make good use of this knowledge. There has been little guidance provided to firms about how to manage CRM to fulfill its promise of enabling firms to realize strategic benefits aimed at improving their competitive advantages.

In the academic literature, a customer knowledge process has been demonstrated to enhance a firm's competitive advantage in new products (Cooper 1992; 1998) by enabling firms to explore profitable innovation opportunities created by emerging customer demand and reducing potential risks of misfitting customer needs. What remains unexplored is whether customer knowledge processes in the context of customer relationship management are helping firms achieve similar superior results.

This paper suggests that the true strategic value of CRM lies in developing a customer knowledge competence which becomes an opportunity for value transformation in the firm and an avenue for competitive advantage. The intent is to help managers take a more strategic approach to managing CRM programs in their organizations by providing a framework to guide managerial decision-making. Drawing on work in organizational learning (Huber 1991; Sinkula 1994) strategy (Day 1994; Day and Wensley 1983) and new product development (Cooper 1992;1998), a conceptual framework is developed and tested using case studies of seven Canadian firms in both the manufacturing and service sectors who have implemented CRM programs.

Conceptual Framework

Customer Knowledge Competence

Firm competences are generally thought of as "complex bundles of skills and collective learning, exercised through organizational processes" (Day 1994, p.38). The importance to firms of harnessing knowledge-based competences which yield a competitive advantage is well established in both the marketing (Day 1994) and strategy (Pralahad and Hamel 1990) literature. While the importance to a firm's competitive advantage of the organizational processes that generate and integrate market knowledge has been acknowledged conceptually (Glazer 1991; Day 1994; Hunt and Morgan 1995) with the notable exception of Li and Calantone (1998), there has been little empirical work on market knowledge competence and no explicit attention to customer knowledge competence.

Market knowledge competence and customer knowledge competence are two related yet separate concepts. Market knowledge competence refers to the processes that generate and integrate market knowledge *in aggregate* which include both customer and competitive knowledge (Li and Calantone 1998), whereas a customer knowledge competence refers to the processes that generate and integrate knowledge about *specific* customers.

Li and Calantone (1998) distinguish between market knowledge and market knowledge competence in the following way. Market knowledge is defined as "organized and structured information about the market as the result of systematic processing" whereas market knowledge competence is "the processes that generate and integrate market knowledge" (p.14). In this research, a similar distinction is adopted between customer knowledge (or systematic information) and a customer knowledge competence. Unlike customer knowledge which is readily available through existing database software packages, a customer knowledge competence is inimitable because processes of generating customer knowledge are embedded in organizational cognitive activities not observed readily from outside (Day 1994; Prahalad and Hamel 1990); and immobile because these processes are created within the firm and cannot be purchased in the market (Day 1994).

Previous research on the impact of market knowledge competence on new product advantage (Li and Calantone 1998) is adapted to operationalize customer knowledge competence. This paper proposes that customer knowledge competence is composed of four organizational processes: (1) a customer knowledge process; (2) the Marketing-IT (information technology) interface; (3) top management involvement; and (4) the employee evaluation and reward systems. A customer knowledge process refers to the set of behavioural activities that generate and integrate customer knowledge into the firm's marketing activities. The Marketing-IT interface refers to the process in which marketing and IT communicate and cooperate with each other. Top management involvement refers to the process by which top management signals its support for the generation and integration of customer knowledge within the firm. The employee evaluation and reward system refers to the process by which employee behaviour is aligned to the goals of generating and integrating customer knowledge into the firm's marketing strategies.

The proposed relationships between the implementation of CRM programs and the four components of customer knowledge competence is discussed next.

Managing CRM programs for Customer Knowledge Competence

Customer Knowledge Process. Consistent with organizational learning theory (Huber 1991; Sinkula 1994) a customer knowledge process is conceptualized to consist of three sequential aspects: customer information acquisition, interpretation and integration. In practice, information about customer needs can be easily acquired through the variety of customer relationship management (CRM) software packages currently available on the market. Obtained information is then be interpreted through various analytical procedures such as identifying, structuring and prioritizing needs (Griffin and Hauser 1991).

Integrating the analyzed information into an organization's marketing and selling efforts, however, demands a new set of organizational skills. Analyzed information needs to be communicated to other functional areas in the firm and to be integrated with a variety of delivery mechanisms which enable cross selling opportunities. Sophisticated multi-channel customer contact strategies need to be associated with a deep knowledge of enterprise wide computing architectures and allied to new marketing campaigns.

Although many firms realize the importance of customer knowledge, there is a tendency among managers to overemphasize one process while ignoring others (Day and Wensley 1988). Such an imbalanced practice results in fragmentary customer knowledge and weakens the effectiveness of a knowledge generation system. The integration aspect of a customer knowledge process is likely to be critical to the development of customer knowledge competence through CRM. This is because, in order to be effective, CRM programs need to re-focus the whole organization around customer profitability.

Marketing-IT Interface. Interface theory (Griffin and Hauser 1992; Gupta, Raj and Wilemon

1986; Song and Dyer 1995; Song and Parry 1997), proposes that a higher level of synergy between marketing and other functional areas enhances a firm's overall performance whereas a higher level of disintegration between marketing and other functions increases the degree of mismatch between what is needed by customers and what is offered by the firm. The necessity for marketing and other functional areas to work together to achieve success has been validated in empirical work on successful new product development. The link between a strong marketing-R&D interface and new product success has consistently been found across a variety of research methodologies (Griffin and Hauser 1991).

Since investment in CRM software packages cannot be justified unless it results in new customer value propositions that increase share, revenue and profitability, a strong Marketing-IT interface is critical to the success of CRM programs. Such an interface, however, may be difficult to achieve. While Marketing requires the development of external capabilities to link a firm with its customers; technology development is an internal capability that sustains a firm's market position (Day 1994).

Top Management Involvement. Given the significant capital expense involved in purchasing and implementing CRM programs into existing systems, it is likely that there is top management support in any firm which has implemented CRM. However, how that support is communicated throughout the organization affects employees' perception of the perceived importance of customer knowledge. Unless top managers understand and communicate to employees the value of customer knowledge, the organization is unlikely to pursue vigorously those activities necessary to generate a customer knowledge competence.

Many previous conceptual articles have discussed the importance of a strong value system in place to guide the implementation of CRM programs. The extent to which top management is involved in CRM emits a strong signal to employees about the perceived importance to the firm of customer knowledge. Top management plays a key role in shaping an organization's behavioural activities (Deshpande, Farley and Webster 1993; Kohli and Jaworski 1990) and in providing an environment that is either conducive or inhibitory to behavioural processes of customer knowledge generation (Gupta, Raj and Wilemon 1986).

Employee Evaluation and Reward Systems. It is increasingly being acknowledged that the challenge of realigning employee behaviour closely parallels the challenge of realigning customer behavior. (Grant and Schlesinger 1995). Engaging in dialogue with a diverse and evolving customer base in multiple channels places a high premium on organizational flexibility. But the creation of a flexible organization imposes psychological and emotional trauma on the organization's employees (Prahalad and Ramaswamy 2000). The importance of incentive and reward systems to help employees meet these new challenges has recently been recognized. Gordon (1998 p.36) outlines four levels of customer learning for employees that need to be explicitly considered in reward and recognition programs: individual learning; team learning within the enterprise; team learning between the company and other firms with which it does business such as suppliers and distribution channel intermediaries and team learning with customers.

Based on this conceptual framework, the next section compares the expressed value system in companies who have invested heavily in CRM programs to the actual organizational processes firms have implemented to generate and integrate customer knowledge into their marketing strategies. Field interviews were conducted with seven firms in the manufacturing and service sectors all of whom had recently invested heavily in CRM programs. Data collection procedures and interview results are discussed next.

Method

To provide some external validity to the four proposed components of customer knowledge competence, it was important to tap a wide range experiences and perspectives in the course of the data collection. The field research consisted of in-depth interviews of 7 large Canadian firms who had implemented CRM programs. Industries represented in the sample include financial services (2 firms), resort travel (1 firm), transportation and logistics (2 firms) and components manufacturing (2 firms). Each firm interview typically lasted between four to six hours and involved multiple interviews with senior and middle managers in the Marketing and IT departments. The interviews followed a guideline that was presented to the informants beforehand. After a brief description of the research project, the informants were encouraged to speak freely about the interview topics. Additional questions were used to probe deeper to elicit examples, illustrations and other insights.

Results

Assessing the Strategic Value of CRM Programs

All seven firms in the sample had made (and continued to make) huge investments in customer relationship management which included both front-end sophisticated data warehousing systems and software packages as well as back-end applications. Only one firm (a financial services institution) however, felt that the increased customer information resulting from their CRM program had helped their firm develop superior customer knowledge capable of generating new customer insights. For the other firms in the sample, CRM programs had, to date, resulted in very little co-value creation. Customer relationships were mostly one-way in which firms tried to create value for rather than with their customers.

Both of the banks in the sample were full service financial institutions which provide a wide range of banking services to consumers, independent business and corporate clients through retail branches, automated banking machines and on-line services. The Canadian financial industry is experiencing an unprecedented restructuring and a strategy transition in response to challenges such as substitute financial service providers, new global competition, and more powerful buyers and suppliers. As a result, virtually every major financial institution in Canada has made investments in CRM. As illustrated by the following quote by a senior bank Vice President, customer relationship management is perceived in this industry as a way to help firms differentiate their services in an increasingly crowded marketplace, “Obviously relationship marketing efforts are very important... And for marketing to large numbers of customers, it’s even more important. You really have to cherish that customer base so relationship marketing is a very important competitive tool”. However, at this bank, CRM was used mostly for data collection and analysis. Not surprising, managers at this bank felt that although the CRM systems are running fine, the desired information is not getting out of the system to improve customer knowledge in the rest of the organization.

In contrast, at the other bank, the CRM program was viewed not merely as a data collection and analysis tool but also as an opportunity for the organization to learn from experiences and practices which can contribute to the overall system. At this bank, managers felt that CRM had greatly contributed to improving organizational effectiveness in acquiring and maintaining its customers.

All the other firms in the sample felt that the results from CRM were disappointing. While the intent of all 7 firms had been to invest in technology as a way to differentiate their offerings from competitors and provide superior service, most firms had not achieved these benefits. Technology, rather than being an enabler of relationship marketing, had turned out to be a barrier. In one manufacturing firm, the VP of Operations stated that rather than improving the firm's performance, their investment in database warehousing and electronic data interchange (EDI) to assist in better product planning, had actually resulted in a drop on the average on-time fill rate for customers.

Despite their heavy technology investment, six of the seven firms in the sample continue to struggle to maintain consistent communication across departments and to develop a model of co-value creation that is meaningful both to the company and to its customers. These findings are related to the four components of customer knowledge competence in the next section.

The impact of CRM programs on Customer Knowledge Competence

Customer Knowledge Process. Firms were asked how the customer knowledge process was managed in terms of the acquisition, interpretation and integration of customer information across the organization. Firms typically followed a standard process for the acquisition of customer information. Both quantitative and qualitative customer information was acquired through trade shows, word of mouth, parent and sister company relationships, direct customer contact, networking and secondary data.

At all firms, customer information was then input into a database. Firms used a variety of proprietary and off the shelf software packages to organize this data according to both “data-driven” (actual revenue; profitability; customer business/product segment; longevity of the account, strategic importance, etc) and qualitative (potential customer revenue; quality/intensity of the relationship, etc) parameters. Often customer information was also cross referenced with other information such as business type, vendor activity and market size to construct models to help the firm predict future customer behaviour. One manager at a logistics firm felt that data collection represented the bulk of the firm’s priority for managing a customer knowledge process “As we get better on data collecting, we will start to tailor messages to individual customers and try to make our relationships with them as one to one as possible”.

For most firms the major problems experienced in managing the customer knowledge process related to the interpretation and integration of customer information. One manager in the travel industry stated that because customer information was fragmented it was not always easy to interpret meaningfully.

The intranet was seen as being integral to creating better understanding between departments and better integration of customer information. Several managers commented that “the intranet is an important first step towards creating better internal relations to help the overall external relationships with customers” As one manager (in transportation) put it “Our data warehouse contains all kinds of quantitative stats - but you have to know how to use it and interpret what you are seeing. We put in place various marketing type databases like Lotus Notes and FAST to try to distribute the qualitative data, but still people don’t use them. If these items were put on an intranet, they would be accessible from anywhere and used more. However, the political hassle of getting something on the web makes it too much of a pain”. At another firm, a manager stated “There is very limited customer contact from Operations. Information flow should be improved from department to department to better serve customers. This information should include revenue figures so that we can get the biggest bang for our buck when choices have to be made between customers”.

However, having an intranet did not automatically produce an integration of customer information. In fact even when firms did have an intranet, quite often there were no formal business processes in place to integrate customer information. A manager working at the bank where CRM initiatives had yielded disappointing results, stated that while his firm “has been good at stockpiling “private content” information about customers in data warehouses and using it for basic demographic and research purposes, our firm has largely failed to link this information in any meaningful way to their delivery channels where customer interaction and sales occur”. One Operations manager (from a firm in transportation services) felt that despite the firm’s intranet, their firm had made no progress at all in integrating customer information. “It’s just like the old days .....Marketing promises something that Operations cannot provide at a reasonable cost or with the assets available...then the customer doesn’t get the service they are expecting.”

Integrating customer information across the organization tended to be most challenging when the technology had been grafted onto the firm’s existing way of doing business. For example, the two manufacturing firms in the sample both operated in “silos” with minimal inter-departmental communication. At one of these firms this was not only a product of the corporate culture but also of the busy nature of the workplace environment. As one manager commented “Effectively it is impossible to inform another department every time something happens which has lead to poor decisions that adversely affect customers. Sales and inventory information are not integrated in a timely fashion. When a customer places an order, the customer service representative does not always have up to date information on inventory levels and may misinform the customer about available inventory. Orders are then shipped incomplete and contribute to poor order fill rates and frustration for customers”. This problem was exacerbated when there multiple points of contact in the firm for the customer. Firms tended to expect that because the technology was in place to allow access to this information by different departments, the information was being communicated. But as one manager put it, “how can this (ie. CRM) be improving communication when there are different models for each separate function such as Marketing, Operations and so on?”.

While CRM programs had resulted in some communications improvement, it did not reach far enough down in the organization. As one manager in transportation said “I see more communication at higher levels in regards to what can and can’t be achieved but it has to drive down further to get more realistic costing estimates and frequency of switch availability”. This manager felt that more than technology was needed to improve information flows. “Many of these initiatives are aimed at giving the customer more information about their shipment but not about providing information to Operations about how the work can be done more efficiently and effectively. It will take time to figure out how we should be interacting internally to develop methods of communication to help us meet customer priorities.”

Marketing-IT Interface. Both the strength of the Marketing-IT interface and whether or not this interface had changed as a result of implementing CRM were investigated. Only two firms had realigned how their marketing and IT departments interacted. In one manufacturing firm there were regular “coordination meetings” between these two departments where employees talked about CRM implementation issues. The VP of Sales and Marketing at one of these firms commented “We’ve found this cooperative approach reduces implementation time and cost”. A senior manager at a bank (where CRM was judged effective) said that the Marketing-IT interface was aligned with the bank’s strong belief in building strong relationships with all stakeholders. He described the Marketing-IT interface as a strong working relationship in which “the IT group works on keeping its customers happy”.

Such a recognition was not apparent at the other 5 firms in the sample. In the other bank, the Marketing-IT interface was described as being “not strong... The results of marketing campaigns do not become inputs to the data system quickly enough to utilize the new findings without any delay. The same issue occurs with information from other departments within the company”. The lack of a strong Marketing-IT interface tended to create three 3 major problems: 1) complex technology that did not integrate customer data and allow access to information by all departments; 2) poor data exchange when employees switched responsibilities from one customer account to another; and 3) the lack of comprehensive customer-related business processes to drive relationship building.

As one manager put it, “it might be nice to think data warehouse is helping us communicate about customers and this is probably true to some extent. However, too often the files become unwieldy and there is too much time spent moving large files between Access/Excel, etc.” The lack of a strong Marketing-IT interface had meant that several firms had invested in technology in a piece-meal fashion. In one manufacturing firm, this meant that their information system only had the capability to run reports based on products and sales representatives, not on customers. While the firm was in the process of adopting new technology, the limitations of the current system “reinforces a product vs a customer-centric orientation in the company....the efficiency problems that are created as a by-product of poor technology choices are at the root of the problems that diminish customer value”.

For another firm (in transportation), solving the problems of inadequate or inappropriate technology had led to a situation where no one was using any system. When asked how the information obtained from customers flows through the various areas of the firm to ensure that customers are treated equitable from department to department, one manager admitted, “frankly... it doesn’t. When we were using a centralized Lotus Notes Database to store total customer information, only a limited number of people (basically customer contact personnel) had access to this data base. Now another system is supposed to be coming into effect which is supposed to a one-stop shopping system, but the result is that the Lotus Noes system is no longer being updated and not many people have access to the new system, so for now, there’s no information flow.”

Top Management Involvement. Not surprisingly, all firms in the sample felt that their senior management team (the President and Vice Presidents) was committed to providing the necessary funds and resources to support CRM projects. In all but one case, the stated objective of CRM was to understand the firm’s customers better in an effort to serve them better. One firm in stated that the strategic vision which supported CRM was based on cost reduction rather than on customer value creation. Although the stated priority at one of the banks was “to increase shareholder value in a sustained and significant way", the focus of the CRM technology was on cost saving through automation. In practice, this orientation by senior management meant that the majority of CRM technology utilized by this bank had been acquired by purchasing off the shelf equipment and software – there was no development of proprietary technology to meet the unique challenges of their particular business.

For the rest of the firms, the vision behind CRM was on value creation. This vision was described in different ways such as "giving our customers more than they expect" or "moving from a product centric organization to a customer centric organization by building and maintaining a base of committed customers profitable for our firm". However, with only two exceptions (a bank and a manufacturing firm), top management was not involved in any way in ensuring that this vision was realized within the organization.

One manager described his firm's marketing strategy in the following way: "we need to move away from the past where relationship development was done solely by the sales force". However, this new strategy not been communicated to either the sales force or to any other departments in the firm. In both the bank where CRM was judged effective and in one manufacturing firm, senior management described their role in making sure that top managment support for CRM was communicated throughout the organization. The VP of Marketing and Sales in the manufacturing firm explained his role in making sure the vision behind CRM was realized in the following way, "we want a tailored full team interface where various departments are talking to our customers' various departments — this is fully understanding the customers' needs and their business.... Such a vision has required a huge investment and a lot of support and coaching from top management. I have regular update meetings to remind and reinforce to our people how important the team spirit is to our success".

Employee Evaluation and Reward Systems. All the firms acknowledged the difficulties in providing incentives for employees to improve their customer-focused performance. The variety of problems caused by lack of proper employee evaluation and reward systems ranged from inadequate and outdated customer database information to changing employee mindsets about their role in customer satisfaction to employees bypassing the new technology all together.

Many of these issues stemmed from difficulties in overcoming employee resistance to change. Several firms had given up on getting their field personnel to regularly update the information in the database and had resorted to outsourcing telemarketing to keep their customer information current. In one firm, a senior account executive continued to use a separate personal Rolodex to record personal information about customers such as anniversary dates, number and names of their children, etc. In her words, “Technology does not replace personal contact. I feel more comfortable using a manual system that I know I can rely on”.

Employee support for CRM programs was far from widespread in most of the firms. At one manufacturing firm, employee support for CRM was described as being “a downward spiral in which there is full support at the executive level, 50% support at the managerial level and only 25% at the employee level. Another manager at this firm confirmed that “one important problem is to obtain full buy-in and support for the program. At this point we do have the support of the President and all the VP’s. All are committed to providing the necessary funds and resources to support the project. The next challenge is to obtain full manager and employee support”.

Although most of the managers interviewed complained that employees were reluctant to learn new procedures, especially when it initially seems more complicated and tedious, few firms had instituted any kind of comprehensive training to encourage employees to change their existing ways of doing business. As one manager commented, “while our core technology systems are some of the best in the industry, the training for our operational staff is far from sufficient”.

Even in those companies which had instituted comprehensive training programs, managers complained that employees were not motivated enough to practice the new behaviours. One firm (in transportation) had implemented an extensive training program for employees in which employees were encouraged to look at customers’ processes and make recommendations that can save the customer money and increase their loyalty to the firm. This training program, however, had not been reinforced with an adequate evaluation and reward system. As the manager commented, “It’s obvious from our experience that training alone is not sufficient to promote systemic organizational change”.

Another related problem was described as changing employees’ “mindsets”. A big issue was the need to make product and sales managers recognize that customers may well have much broader relationships with the firm and to remind employees of the need to deal with customers in that context. The VP of Sales and Marketing at one firm admitted that “we are strong in building customer relationships, but weaker in starting them. We are starting to move toward teaching our salespeople how to develop long term relationships with customers by understanding not only their wants and needs, but their motivations and business.” At a manufacturing firm, one manager commented that “Changing a sales price oriented approach to one that recognizes customer value and service will be a challenge. Our sales people have to begin identifying the needs of our customers as well as understanding their business. Putting measurements in place to drive salespeople’s behaviour is probably our biggest challenge”.

Four firms had introduced some sort of incremental reward system whereby superior employees were provided with a performance bonus. In two firms, however, the performance bonus was restricted only to sales personnel and was revenue-driven rather than behaviour-driven. At one firm, salespeople were rewarded for their actions through a bonus structure based on goals set by both the company and the employee. The bonus could be up to 21% of salary - 6% based on achieving corporate objectives and 15% based on achieving personal objectives. It was recognized that this bonus structure was more beneficial to some employees than to others depending on which business unit they were in. “If you were serving customers in an industry which is not growing, your objectives would be less ambitious than if you are serving customers in an industry where there is more opportunity to grow the business”.

At the other firm, senior management had started with a performance-based incentive scheme for salespeople since they felt the success of CRM was more dependent on sales than on the other functional areas. As the Process Improvement Manager said “We essentially need a behavioural change in the people who are going to use the new process. In my mind, sales people are one of the most difficult type of people to change in a company. It is going to be a challenge. The success of the program depends on it....We reward salespeople for their support and use of the CRM program. Measurement is based on which customers you are seeing and how you are maintaining the database."

Neither of these firms had any incentive or reward systems in place for the functional groups to participate in sharing information with sales account groups. While one firm recognized this as a weakness, they have been unable to develop an performance-based evaluation system to correct this problem. In contrast, both banks in the sample had more innovative employee incentive plans aimed at creating a strong culture of accountability within the bank by establishing a performance culture. Both banks had set financial benchmarks, initiated more disclosure than ever before (based on the belief that employees will feel more accountable when their performance is published externally) and tied employee's compensation tightly to their performance.

Implications for Customer Relationship Management

While several studies have pointed to the increased demand by customers for firms to implement processes which improve their ability to provide customer-specific solutions (Gupta, Raj and Wilemon 1986; Wheelwright and Clark 1992), there have been no studies suggesting what firms need to consider to reap strategic rewards. This research represents a first step in providing both academics and managers with guidance on the factors which contribute to creating a customer knowledge competence.

From an academic perspective, this research has proposed a new theoretical construct, customer knowledge competence, which links customer information to a firm's competitive advantages. Applying the construct of customer knowledge competence may provide valuable insight into firms' performance discrepancies in customer relationship management. To reap the rewards of CRM, managers need to institutionalize organizational mechanisms to complement new CRM technologies, which integrate information within Marketing and between Marketing and IT departments; establish ways to signal top management involvement; and establish organization-wide employee evaluation and recognition systems which incent employees to adopt new customer focused behaviours.

From a managerial perspective, our results suggest that a number of factors cited as being key success factors in the managerial literature are likely to be necessary but not sufficient conditions for CRM to result in customer knowledge which can be leveraged strategically. For example, despite the strategic vision provided by senior management; at almost all firms, this vision was not shared by the majority of employees. While exploratory, the results of the case studies suggest that all four components of customer knowledge competence need to be managed strategically to reap the true benefits from CRM programs.

There is no doubt that the role of marketing is changing within organizations (Webster 1992). Successful implementation of CRM will require a greater integration of knowledge between Marketing and IT departments. Customer-focused initiatives represent a new challenge for information technology and internal IT departments. In the past, IT has been heavily based towards process automation and cost reduction. This focus has created an environment where an IT project that justifies itself through increased revenue and market share is rarely taken seriously (Heygate 1997). The results from this research suggest that strong Marketing-IT linkages are becoming essential rather than discretionary. Gaps between customer requirements and the firm's product offerings can be closed only when interdepartmental functions communicate and cooperate in their information processing procedures.

It is interesting that although all managers in the sample recognized that it is a myth that online enhancement and channel integration automatically builds customer loyalty, in practice they relied on CRM technology to replace sound business practices. This study demonstrates that leveraging customer knowledge is not dependent only on employee access to customer information provided by CRM products. Although the challenge inherent in implementing a new technology are considerable, the real challenges lie in developing business processes and systems to integrate information and to motivate employees.

Finally, this research has shown that creating customer knowledge competence requires multiple skills. Many of the firms in the sample were following a split strategy where some business units remain product-driven and others follow a customer-centric strategy. Technology was grafted onto organizational structures which did not support a customer-focused culture. By allowing a meaningful dialogue with customers, CRM technologies have the capability to provide a seamless service across multiple channels which precisely controls the flow of communications essential to increasing individual customer loyalty. But in the words of one manager from a transportation firm, "Technology is just a tool...it is only as good as the people using it. When you think about it, the real reason we purchased CRM was because it was a customer focused system...but we still have a long way to go".

REFERENCES

Berry, Leonard L. and A. Parasuraman (1993), "Building a New Academic Field–The Case of Services Marketing", *Journal of Retailing*, 69, (Spring) 13-60.
Cooper, Robert G. (1992), "The NewProd System: The Industry Experience", *Journal of Product Innovation Management*, 9 (2), 113-27
Cooper, Robert G. (1998), *Product Leadership: Creating and Launching Superior New Products*, New York: Harper Collins.
Day, George S. (1994), "The Capabilities of Market-Driven Organizations", *Journal of Marketing*, 58 (October), 37-52
Day, George S. and Robin Wensley (1988), "Marketing Theory with a Strategic Orientation", *Journal of Marketing*, 47 (October), 79-89.
Deshpande, Rohit, John U. Farley and Frederick E. Webster Jr. (1993), "Corporate Culture, Customer Orientation and Innovativeness in Japanese Firms: A Quadrad Analysis", *Journal of Marketing*, 57 (January), 23-37.
Gordon, Ian (1998), *Relationship Marketing*, Toronto: John Wiley & Sons.
Glazer, Rashi (1991), "Marketing in an Information-Intensive Environment: Strategic Implications of Knowledge as an Asset", *Journal of Marketing*, 59 (October) 1-16.
Grant, Alan W.H. and Leonard A. Schlesinger (1995), "Realize your Customers' Full Profit Potential", *Harvard Business Review*, (Sept/Oct), 58-72.
Griffin, Abbie and John R. Hauser (1991), "The Voice of the Customer", working paper, Sloan School of Management, MIT.
Gronroos, Christian (1995), "Relationship Marketing: The Strategy Continuum", *Journal of the Academy of Marketing Science*, 23, 4, 252-254.
Gupta, Ashok K., S.P. Raj and David Wilemon (1986), "A Model for Studying R&D-Marketing interface in the Product Innovation Process", *Journal of Marketing*, 50 (April), 7-17.
Heygate, Richard (1997), "Harnessing Technology to win Customer Loyalty", *Strategy for Business*, (November)

Hill, Daniel (1998), "Love my brand", *Brandweek*, (Jan 19), New York

Huber, George P. (1991), “Organizational Learning: The Contributing Processes and the Literatures”, *Organization Science*, 2 (February), 88-115.
Hunt and Morgan (1995), “The Comparative Advantage Theory of Competition”, *Journal of Marketing*, 50 (April), 1-15.
Kohli, Ajay K. and Bernard J. Jaworski (1990), “Market Orientation: The Construct, Research Propositions and Managerial Implications”, *Journal of Marketing*, 54 (April), 1-18.
Li, Tiger and Roger J. Calantone (1998), “The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Examination”, *Journal of Marketing*, 62 (October), 13-29
Morgan, Robert M. and Shelby D. Hunt (1994), “The Commitment-Trust Theory of Relationship Marketing”, *Journal of Marketing*, 58 (July), 20-39.
Sinkula, James M. (1994), “Market Information Processing and Organizational Learning”, *Journal of Marketing*, 58 (January), 35-45.
Pralahad, C.K. and Gary Hamel (1990), “The Core Competence of the Corporation”, *Harvard Business Review*, 68 (May/June), 79-91.
Pralahad, C.K. and Venkatram Ramaswarmy (2000), “Co-opting Customer Competence”, *Harvard Business Review* (Jan/Feb), 78-87.
Ruediger, Adolf, Stacey Grant-Thompson, Wendy Harrington and Marc Singer (1997), “What leading banks are learning about big databases and marketing”, *McKinsey Quarterly*
Song, X. Michael and Barbara Dyer (1995), “Innovation Strategy and the R&D Marketing Interface in Japanese Firms: A Contingency Perspective”, *IEEE transaction on Engineering Management*, 42 (4), 360-71.
Song, X. Michael and Mark E. Parry (1997), “The Determinants of Japanese New Product Successes”, *Journal of Marketing Research*, 34 (February), 64-76.
Webster, Frederick E. Jr. (1992), “The Changing Role of Marketing in the Corporation”, *Journal of Marketing*, 56 (October), 1-17.
Wheelwright, Steven, C. and Kim B. Clark (1992), *Revolutionizing Product Development*, New York: The Free Press.