Strategic integration of knowledge management and customer relationship management

Chor-Beng Anthony Liew

Abstract

Purpose – The purpose of this paper is to introduce the concept of strategic integration of knowledge management (KM) and customer relationship management (CRM). The integration is a strategic issue that has strong ramifications in the long-term competitiveness of organizations. It is not limited to CRM; the concept can also be applied to supply chain management (SCM), product development management (PDM), enterprise resource planning (ERP) and retail network management (RNM) that offer different perspectives into knowledge management adoption.

Design/methodology/approach – Through literature review and establishing new perspectives with examples, the components of knowledge management, customer relationship management, and strategic planning are amalgamated.

Findings – Findings include crucial details in the various components of knowledge management, customer relationship management, and strategic planning, i.e. strategic planning process, value formula, intellectual capital measure, different levels of CRM and their core competencies.

Practical implications – Although the strategic integration of knowledge management and customer relationship management is highly conceptual, a case example has been provided where the concept is applied. The same concept could also be applied to other industries that focus on customer service.

Originality/value – The concept of strategic integration of knowledge management and customer relationship management is new. There are other areas, yet to be explored in terms of additional integration such as SCM, PDM, ERP, and RNM. The concept of integration would be useful for future research as well as for KM and CRM practitioners.

Keywords Knowledge management, Customer relations, Integration, Intellectual capital, Asset valuation, Measurement

Paper type Viewpoint

Introduction

The third wave, the digital age, and/or knowledge economy are terms used to describe a new era of significant change, just like the second wave of turning an agricultural society to an industrial economy. The knowledge economy is fueled by the rampant development of information technology that facilitates data processing, information usage, and hence knowledge application. In turn, many new developments of scientific knowledge and discoveries began to take place such as new technology, alternative energy and fuel source, and biotechnology etc. Advancement in the digital arena includes integration of information technology and communication technology, virtual reality, artificial intelligence, robotics, and OLED (organic light-emitting diode), just to name a few.

Knowledge management is one of the major driving forces of organizational change and value creation since the early 1990. As with any evolving managerial concept, knowledge management has indelibly and increasingly become more and more complex. There is a convergence of related concepts that tie in with knowledge management, such topics include intellectual capital, organizational learning and various learning theories, intangible assets, social network, neural network, community of practice, market or competitive
intelligence, competitive strategy, change management, corporate culture, creativity and innovation, information technologies (such as artificial intelligence application, decision support system, and expert system), and, not to forget, performance management.

Although the knowledge economy is still in its infancy, it promises to advance human understanding and knowledge. Advancement of human knowledge may lead to improved problem-solving skills, decision-making skills, analytical thinking, conceptual thinking, strategic thinking skills, human intelligence (IQ, EQ, AQ, and MQ etc.), inter-personal communication skills etc. Educational programs would also advance to meet the knowledge demands of the new era.

While industries continue to upgrade from intensive data processing operations to information-based operations to knowledge-based businesses, the need to understand knowledge management will also grow. The need to integrate major functions within the entire supply chain and not just within the enterprise would also begin to surface. The major functions within the supply chain include supply chain management (SCM), product development management (PDM), enterprise resource planning (ERP), customer relationship management (CRM), and retail network management (RNM).

For an enterprise that already manages its customers as its core business, CRM is its core competency, and, most likely, also its competitive advantage. CRM system was born out of necessity; from sales transactions (such as call centers) and customer complaint handling. Only when marketing and customer orientation concepts began to take hold of the organization did customer relationship management begin to emphasize customer value added and customized services and customer relationship building. There are three levels of CRM that progress in sophistication with each level up. They are transaction-based data processing customer services; informed decision based customized services, and knowledge-based customer and value driven relationship management. In order for an enterprise to achieve the third level of CRM sophistication by upgrading its core competency and competitiveness, knowledge management must be introduced into the organization as a strategic change. To accomplish that effect to its full potential, the key lies in the strategic intent of the enterprise must be explored. The enterprise must therefore identify the intermediate and ultimate goal of developing its sustainable competitive advantage and core competency. Here, we must assume that customer service is the focal point of the business strategy for the enterprise.

Strategic planning process

Introducing knowledge management into an organization is a strategic issue, and thus warrants a proper strategic plan. This plan should involve the CRM function and other supporting functions and processes. The supporting functions and processes must also be upgraded or strengthened for the potential of knowledge-based CRM to be fully realized.

Adopting knowledge management also requires a strategic review of the enterprise business model to deduce its effects and challenges of implementation. Viewing knowledge management just on an operational level would not be sufficient as it involves issues of change management, corporate culture, leadership, and competency development, all of which would have major impact on the business model and competitiveness of the enterprise.

Strategic planning process includes the following steps:

- situation analysis;
- scenario planning;
- strategic options;
- implementation;
- performance management; and
- review and adjustment.
Situation analysis entails review of the current situation including internal strengths and weaknesses, and external threads and opportunities (SWOT analysis) that extends to the business environment, social trends, government polices, and trading countries etc. In addition, analysis of organizational potential strengths can be used to assess future competitive advantage and potential competency development of the organization. Analysis may also include supplier relationships, strategic alliance relationship, customer relationship and potential target market, and encroachment of potential competitors.

Scenario planning evaluates the various possible or likely outcomes of foreseeable future after brainstorming those possibilities. These possibilities include outcomes derived from the situation analysis and new ideas of actions generated from the brainstorming sessions. Scenario planning may also include risk analysis of various threads probable or improbable. The enterprise may have to devise contingency plans for certain risks that may be high or where the negative impact is too big to bear no matter how small the risks are. Sophisticated simulation, forecasting, and statistical software can assist the process of scenario planning and its analysis.

Next, the organization must generate strategic options and review their feasibilities and value for final decisions. Such strategic options would impact the business model, core competencies, and competitive advantage of the enterprise for the future. The senior management of the company usually has the final say in these decisions, and such decisions are based on the collective wisdom of corporate leadership. There are no hard rules on strategic decisions.

After the strategic decisions are made, the enterprise can mobilize all its relevant resources to implement the strategic plan to make it a reality. Project leaders are then assigned and execution plans are drawn under the guidelines of the overall strategic plan. The enterprise must fully understand the impact and implication of the strategic options. If the scenario analysis is conducted with due diligence, there would be less guess work in the decision-making process.

Implementation is a critical step that involves generating detail projects and programs for execution. Projects and programs may include the development of new strategic assets, upgrading competencies, new marketing activities, new management techniques, new business processes with IT support, and research and development in products and services etc. Supporting programs such as job rotation, recruitment, training, and internal communication etc. would also be a part of the strategy implementation.

Once implementation of the strategic plan is underway, performance management then becomes a crucial element in controlling, modifying, and improving the direction and activities of the projects and programs, as well as the final desired business results. Performance management's most common and effective monitoring tool is the Balanced Scorecard (Kaplan and Norton, 1996) as it offers a balanced view of financial v. non-financial, and current v. future performance. There are four quadrants in Balanced Scorecard: Customer, Process, Financials, and Renewal and Development. This tracks performance in the front line, production line, bottom line, and the timeline (future development). However, with the advent of knowledge management introduction, the balance scorecard should be modified to reflect the performance of strategic knowledge assets such that of intellectual capital. The fourth category therefore should be split into two to reflect organizational vis-à-vis individual development to correspond to structural capital vis-à-vis human capital or individual competency. This would reflect the different operational

“Knowledge management is one of the major driving forces of organizational change and value creation since the early 1990s.”
effects and business impacts on the standpoint of individual and/or group performance and their progress. Organization development for example may include an additional R&D unit, or a new distribution and retail network in a country where the enterprise does not have presence there previously. In addition, individual development for instance may include new core competency required for future strategic alignment with a new business unit, or for upgrading organizational competitiveness in a particular business operation. These developments are knowledge-based strategic assets.

Supplier and strategic alliance relationships should be added to the list as well since they can become strategic assets to the organization. Enterprise can monitor and manage their contributions or value created, innovative ideas, and cooperativeness etc. Enterprise can join-develop products and services with its suppliers and strategic alliances. Last but not least, social capital is the individual access to various human relationship resources usually outside of the organization. Social capital is basically a neural network of information access and capabilities mediated by human relationships. Social capital can be a strategic knowledge asset if one has the proper intent, skills and methodology to manage it. Enterprise could use social capital resources in market intelligence program, access and then build certain relationships with government agencies, potential alliances, suppliers and customers etc., and even to the extend with competitors to form “coopetition”. In short, the potential for social capital to become an enterprise’s strategic knowledge asset is yet to be fully realized, nevertheless, the potential is real.

Finally, given the information on performance, enterprise should conduct a strategic review of entire organization to ensure that the corporate strategy is on the right track, or determine if adjustment is needed for whatever the cause. In order for a business strategy to be effective, enterprise must be informed in order to have the right vision as well as right decision; implementation must also be committed and carried out. In addition, enterprise should reserve a degree of flexibility as contingency in case changes and adjustments are required to set the organization on the desired course.

Objectives of knowledge management
The objectives of knowledge management according to Andriessen (2004a, b) are:

- to avoid re-inventing of the wheel in organizations or reduce duplication of knowledge-based activities. Basically the intent is full knowledge utilization;
- to facilitate continuous innovation that can be capitalized; and
- to increase people competencies and thus organizational competencies that would eventually lead to greater competitiveness.

Knowledge utilization
Knowledge management program can facilitate knowledge transfer or knowledge flow within as well as between business units. Such a program can be designed to encourage healthy competition and collaboration between business units in terms of knowledge creation, sharing and application. Certain facilities would be required such as knowledge repository, internal community of practice using intranet, document management system, communication, collaboration and workflow software. But more importantly the knowledge management adopting organization must also manage change by encouraging a knowledge sharing and collaborative corporate culture.

Innovation and value chain
Continuous knowledge creation and application on product/service development and/or operational process development creates greater value and competitiveness whether they are in incremental benefits or in major innovative breakthroughs. The business value chain can be viewed in four segments i.e. Product R&D, Production/Operation, Marketing/Distribution, and Customer Services. These are value creating or value adding business activities that once supported by continuous innovation would have a better opportunity in sustaining the organizational competitive advantage(s).
Competency development

New knowledge created, shared, and applied within the business operations would also build organizational intellectual capital, i.e. human capital, structural capital, and relationship capital through the development of competencies (skills, knowledge and experience) of the people in the organization. Human resource management would play a major role in competency development such as job rotation, job enrichment, e-training/e-learning, cross functional projects, experimentation, leadership development, and team building etc. Collective individual competencies can be organized and converted into structural capital and relationship capital creating greater financial value and competitiveness. Due to the strategic nature of the relationship, organization must have a performance monitoring system to ensure continuous attention being applied:

Competency can be defined as the capability or capacity to perform, and it is comprised of knowledge (explicit know-what and know-why), skills (abilities and know-how), and experience (routine and/or past experimentation).

There are various measurements of knowledge management activities depending on the focus of the knowledge management program. These measures may include:

- amount of knowledge codification;
- usage of knowledge repository;
- benefits derived from usage of knowledge repository;
- currency and relevancy of repository;
- intensity of collaboration, interaction and discussion;
- number of knowledge sharing activities;
- number of suggestions and experiments within the community;
- number of new products, services, and/or practices introduction;
- number of problems solved through knowledge or best practices shared; and
- measurement of intellectual capital and intangible assets.

The purpose of intellectual capital measure

Andriessen (2004b) has categorized the reasons for measuring intellectual capital into three main groupings i.e. improving internal management, improving external reporting, and statutory requirement and transactional concern.

The first group of motives includes:

- what gets measured gets managed;
- improving management of intangible resources;
- creating resource-based strategies;
- monitoring effects from actions;
- translating business strategy into action;
- weighing possible courses of action; and
- enhancing management of business as a whole.

The second group of motives includes:

- closing the value gap between book value and market value;
- improving information to stakeholders about the real value and future performance of the enterprise;
- reducing information asymmetry;
- increasing the ability to raise financial capital; and
- embracing corporate reputation and affecting stock price.
The third group of motives includes:
- transactional valuation of intangible assets;
- securitization and collateralization for financing;
- bankruptcy and reorganization assessment;
- litigation support and dispute resolution; and

There are various measures of intellectual capital such as from ICM group study (1998) value extraction, customer capital, structural capital, value creation, human capital; Roos et al. (1998) human capital, structural capital; CMA (1999) draft report on measuring knowledge assets; Universal Intellectual Capital report by Edvinsson and Malone (1997), financial focus, customer focus, process focus, renewal and development focus, human focus (Liebowitz and Suen, 2000). What is interesting is the corresponding coincidence between Balanced Scorecard model and components of intellectual capital. This means integration of the various measures is not out of reach. However, what may be missing are the connections between the measures of the main components.

The modified and integrated intellectual capital measure

Customer capital
- customer base;
- customer lifetime value (average sales per customer, profit per customer, frequency of (re)-purchase, duration of relationship);
- customer loyalty index (retention, related purchase, referral, and "share of wallet” or percentage of customer’s business);
- customer satisfaction index (number of complaints, financial lost ratio, customer attrition, lawsuits etc.);
- customer acquisition rate;
- market share;
- consumer perception and brand image;
- customer service (contact frequency, contact duration, response time, contacts per sales, duration between sales, number of service activities between sales);
- new customer to loyal customer ratio; and
- corporate reputation index (i.e. first time buying due to reputation effect).

Structural capital
1. Process:
   - TQM productivity;
   - concurrent engineering;
   - R&D productivity;
   - number of new products;
   - time to market; and
   - cost reduction rate.
2. Organization:
   - access to distribution channels;
   - rate of retail network development;
virtual teamwork, collaboration;
community of practice;
globalization;
IT infrastructure;
marketing program;
brand management;
e-learning; and
corporate university.

3. Intangible assets:
brand equity;
trademarks;
patents;
copyrights;
software;
corporate culture; and
corporate reputation and image.

Relationship capital

1. Supplier:
supplier base;
supplier response rate;
satisfaction on cooperation;
strength of supply chain;
satisfaction on meeting requests; and
continuous value adding activities (continuous improvement in cost reduction, quality improvement, and speed).

2. Strategic alliance:
number of partners;
satisfaction on meeting requests;
satisfaction on cooperation;
strength of competitiveness in cooperation; and
continuous value adding activities.

3. Social capital:
influence on and relationship with government agencies, interest groups, trade association, and other social groups; and
extent of contacts and referrals.
Human capital
- core competencies (communication, problem solving, conceptual thinking, strategic orientation, analytical thinking etc.);
- basic skills index;
- domain knowledge;
- expert base;
- productive employee ratio;
- value creating staff vis-à-vis value maintaining staff ratio;
- employee turnover;
- new employees recruitment rate;
- quality of new recruitment;
- staff to manager ratio;
- average years of service;
- average age of employee;
- advance degree ratio;
- training expense per employee;
- training time per employee;
- leadership index;
- motivation/loyalty/commitment index;
- employee satisfaction index;
- teamwork index;
- creativity index;
- participation in community of practice/interest;
- additional learning activities;
- private experimentation;
- publications;
- suggestions offered or new ideas;
- suggestions adopted by organization;
- empowerment index;
- knowledge sharing practice;
- number of best practice cases recorded and rate of growth;
- rate of intangible asset creation;
- number of mentor-protégé relationships;
- mentor to protégé ratio;
- interactions with external experts, scholars, consultants, advisors etc.; and
- individual social capital index.

Renewal and development
- R&D budget;
- training budget;
- tangible asset investment;
- IT investment;
knowledge management investment;
customer relationship management investment;
PR budget; and
marketing budget.

**Valuation**

- market value: EVA, MVA, NPV, APV etc.;
- return of net assets, equity, and investment;
- revenue and profit growth;
- revenue and profit per employee;
- revenue and profit per customer; and
- Z-Score model to determine financial health (Altman and Hotchkiss, 2005).

**Value creation**

Profit creation is but a small part of the concept of value creation. The common perception of "value" is monetary value. However, there are several meanings of value that apply to the overall business process of value creation. Besides the meaning of monetary or quantitative value, Merriam Webster’s collegiate dictionary definition of value includes meaning of “relative worth” as in “value for money”, “appraise or appreciate” as in “value one’s contribution”, and “judgment call of good and bad” as in “values and beliefs”. Andriessen (2004a) citing Trompenaars and Hampden-Turner (1997) defines value as degree of usefulness or desirability of something. Andriessen (2004a) also cited Rescher’s (1969) Value Theory which states that “values are inherently benefit oriented”, which also depends on one’s view of usefulness and/or desirability, and therefore, “value is in the eye of the beholder”. This value concept also aligns with microeconomic theory of propensity to consume. In essence, value is the personal or collective judgment of the worth of exchange between expected benefits and “costs”.

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\text{Value} = \frac{\text{Benefit}}{\text{Cost}}
\]

In the collective sense, the concept would be “supply and demand” in economic theory. Different products and services provide various benefits or utility to meet demand (all sorts of needs, wants, and desires). Nevertheless, we can measure the benefit indirectly using proxies that would be the bridge between supply (R&D, Production, Marketing, and Services) and demand. The benefit proxy measures (supply side) include:

- **Quality**: Functionality, duration, consistency, and aesthetics.
- **Timing/speed**: Real time or on time delivery.
- **Information**: Benefit pointer.
- **Option (real or financial)**: Creates greater opportunity to meet demand.
- **Convenience**: Ease of access.
- **Brand image**: Realization of perceptual identity, presentation of social standing, implied promise or contract of expected benefit (reputation effect), representation of feelings or aesthetics.

“Cost” measures (demand side) include:

- money ($ £ ¥ . . .);
- time (waiting);
- effort and inconvenience;
- pain and suffering endured;
opportunity cost (sacrifice of alternate benefit); and
favor owed (non-financial obligatory debt).

There is still the flipside of the Value Formula. The benefit proxy measures (demand side) include:

- financial payment (sales revenue, profit);
- referral (word-of-mouth, reputation effect);
- feedback (suggestions and participation to improve); and
- moral support.

The cost measures (supply side) include:

- financial investment and expenditure; and
- time and effort.

The simplicity of the Value Formula is prescribed by the relationship where the greater the benefit and/or the lesser the total costs, the greater the perceived value. The Value Formula concept provides a basis for cost-and-benefit analysis on both the supply side and demand side perspectives that also includes non-monetary independent variables or factors.

Knowledge management adoption

When enterprise considers introducing knowledge management into its organization, the enterprise must also consider it under the perspective of strategic change. Otherwise, we are not doing justice to the potential of knowledge management. Knowledge management also requires a process of review (similar to that of situation analysis and scenario analysis), generating of alternatives, strategic alignment, implementation, performance management, and post review and adjustment. The knowledge management introduction process is similar to that of strategic planning except for certain details.

One, knowledge management introduction has an additional step, i.e. strategic alignment where the knowledge management program or project must fit the corporate strategy or at least it should compliment or support the current business processes. A renegade program without majority support of the employees would have limited effect or contribution to the organization as a whole.

Two, the review step in knowledge management introduction process includes two important tasks; knowledge audit and knowledge map. The objective of knowledge audit is to review the organization in four major categories, i.e. people, process, technology, and content while keeping in mind of intangible assets and intellectual capital. The audit is also used to identify the strengths and weaknesses of organizational and individual knowledge; where and how knowledge is created, stored, embedded, applied, transferred, and renewed; the knowledge content and flow are then mapped out visually as a reference for future changes or development. It also serves as a reference for what is required in the strategic alignment task. In other words, the independent knowledge audit and knowledge map is a separate exercise that would be later integrated into the situation and scenario analysis of the strategic planning process. This is a crucial endeavor since the integration is fundamentally recognition of knowledge management concepts having strategic impact. And, here strategic impact we mean impact on strengthening competitiveness or development of new competencies or assets that has the potential of becoming new competitive advantage.

Knowledge management sub-systems

There are various sub-systems that can aid the implementation of knowledge management concepts:

- collaboration system;
- virtual community of practice, and/or virtual community of interest;
- document management system;
- digital library;
- expert system (ES);
- decision support system (DSS);
- best practice database;
- e-learning and/or e-training system;
- simulation system (including scenario and forecasting);
- mentorship program; and
- enterprise information portal (EIP).

Collaboration system is fundamentally a virtual project management system where project team members are located all over the geographical map or work for various independent cooperating organizations. Collaboration system pulls talent and expertise together for a particular project that otherwise would not be cost effective.

Virtual community of practice and/or interest also pulls people of common expertise or interest to share experience, knowledge, ideas, and insights. The virtual community system is based mainly on internet technology, and it can exist within an organization, between companies, or simply in the public domain. The biggest benefit of virtual community is the access of experience, knowledge, ideas and insights external to the organization.

Document management system focuses on managing the storage, access, and flow of various types of electronic documents. Types of document include text, image, sound, and video that are the embodiment of organizational explicit knowledge and intangible assets.

Similar to a traditional library, a digital library contains explicit knowledge of various subjects and expertise in digital form. Hence, it gives enterprise greater ease of access compared to traditional library.

Expert system is usually a system developed with assistance from experts to solve structured but complex problems in a particular field. The system therefore contains explicit knowledge and collective experience of a team of field experts.

Decision support system, on the other hand, is usually a system developed for semi-structured and/or unstructured problems. Unlike expert system, decision support system is an information intensive system rather than a knowledge intensive system. Nevertheless, decision support system provides a basis for knowledge and experience in better decision-making.

Best practice database is fundamentally a digital collection of industry best practices in various processes and operations. It offers benchmarks for future operational improvements.

E-training system is a supplement to overall training program in human resource management designed for greater usage and cost effectiveness particularly for large organizations. E-training system is usually accessed via enterprise information portal based on internet technology. Although e-learning system in many ways is similar to e-training system, the main difference is that e-learning system encourages self-training or self-disciplined learning related to work and career development.

Simulation systems are used for simulating complex scenarios of operations or strategic options as reference for decision making. Forecasting is another form of simulation, i.e. time

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series or future possibilities. Assuming the system outcome is valid; the results would provide valuable knowledge and insights in operations and/or strategic thinking.

Mentorship program is designed to assist transfer of certain tacit knowledge and expertise between mentor and apprentice. Certain tacit knowledge and expertise is difficult to transform into explicit knowledge. However, it can be transferred through human interaction such that of mentoring and learning.

Enterprise information portal is a gateway that allows employees access to organization's rich source of data, information and knowledge. A well-organized portal would direct employees to relevant information and knowledge quickly and with ease, thus facilitate effectiveness of work.

Customer relationship management

For the consideration of this paper, we can assume that customer relationship management is identified as the core competency and a major competitive advantage of a particular enterprise. And, we are attempting to introduce knowledge management concepts, systems, and tools into the organization to turbo charge their customer relationship management competency, as well as supercharging the secondary or supporting processes or competencies in order to substantially improve corporate competitiveness. There are two major areas to consider in terms of strengthening the customer relationship management competencies i.e. customer relationship management function or competency upgrade, and supporting process competency development.

The fundamentals of customer relationship management grew from demand on after-sales customer service. In addition, it is based on sales transactions and intensive data processing. With further influence of marketing and customer orientation principles, customer relationship management advances to adoption of value-added problem solving and customized services. However, the ultimate customer relationship management principle is to build customer loyalty and lifetime patronization.

Core competencies of customer relationship management

As mentioned earlier, there are three levels of customer relationship management in terms of their short v. long-term effects, and functional sophistication:

1. transaction-based data processing;
2. informed decision-based value added customized product and services; and
3. knowledge-based customer and value driven relationship building.

We can assume that the given enterprise is primarily either in level one or level two of customer relationship management, and wishes to upgrade to level three of customer relationship management given that it is the conclusion drawn from strategic review. Each level of customer relationship management requires different competencies i.e. knowledge and skills. Level one requires core competency in selling skills, understanding of customer needs and wants, real-time customer data access, customer compliant handling skills, and data processing skills etc. Level two skills include anticipating customer needs and wants from extrapolated information, customization skills with given cost budget, creativity, problem-solving skills, analytical skills, creating added value, interpersonal communication skills, customer information extraction skills etc, and skills from level one. Level three skills, on the other hand, cover measuring and managing customer loyalty and customer lifetime value, customer driven process management, skills in relationship building, best practices in customer service, collaboration, effective learning and knowledge transfer etc., and skills from level one and two.

Supporting processes and competencies

In order for the strengthened or upgraded customer relationship management to be effective, supporting processes must also be strengthened as well. Supporting processes include product research and development, production management, supply chain
management, logistics, marketing, and sales management. Competency development must therefore comply with supporting processes as well. Besides the functional skills and knowledge, other supporting competencies include problem solving, interpersonal communication, leadership, teamwork, analytical thinking, conceptual thinking, strategic orientation, time management, quality management, and project management etc.

Integration of knowledge management system and customer relationship management system

The integration of knowledge management and customer relationship management must be looked at in several crucial areas.

One, the review exercise of the strategic planning process must include knowledge audit and knowledge map that would act as a reference in development of knowledge management to support customer relationship management. This includes people (individual competency), process (structural capital and intangible assets), technology (IT), and content (explicit knowledge).

Two, the various knowledge management sub-systems must be evaluated and then applied when appropriate to the customer relationship management system in the effort to upgrade to level three of customer relationship management.

Three, as part of the support for the integration of knowledge management system and customer relationship management system, the supporting processes of customer relationship management must also be strengthened or upgraded in order for the entire system to be effective.

Four, knowledge-based customer relationship management is knowledge intensive and highly dependent on talented human resource. Hence one of the crucial supporting functions of the integration is competency development, and this function is usually charged to the responsibility of human resource management.

Five, enterprise must be monitored for performance against expectation or goal for any newly implemented system. Hence, the enterprise must also redesign the performance management system that includes various metrics to fit the new strategic implementation.

The integration takes the form of a strategic change program comprising of various execution projects in given timeframe.

Issues of concern in integration

Like all strategic changes, it requires the buy-in and support of top management. Corporate leaders must understand the implications of KM and CRM and the strategic impact of their integration. Second, corporate culture may change (i.e. knowledge sharing behaviors, collaborative activities) that requires mindful and active planning and management. Third, the change agent or program champion is also required and he/she is usually designated as Chief Knowledge Officer (CKO). The CKO must understand the issues of corporate strategy, human resource management, information technology, corporate culture development, change management, leadership, team dynamics, as well as KM and CRM, and must have the persistence to carry the program through. The task is formidable, but nonetheless, achievable.

Case example: Mercedes-Benz in Taiwan

Mercedes-Benz was distributed by Capital Motors Inc. (under Gek Poh Holdings) over three decades. Taiwan has achieved commendable economic growth since the 1970s. The income per capita is over US$12,000 with average sale of Mercedes-Benz cars about 10,000 a year ranked third in Asia after Japan and China. The import duties totaled from 70 percent to 200 percent depending on the size of engine. A Mercedes-Benz would cost twice to three times as much as in the USA. Capital Motors Inc. (CMI) maintains an effective customer base of about 80,000 prior to segregation of distributorship and dealership.
CMI initiated the customer relationship management program including call center function and various relationship building programs on an annual or ad hoc basis. One of the most successful programs is the annual Mercedes-Benz Charity Golf Tournament. The program started in the early 1990s where all Mercedes-Benz car owners were eligible to participate. Top nine players (three from each group of different handicap levels) get to participate in the Asian Mercedes-Benz tournament, and the top nine players from the Asian finals get to play in the world Mercedes-Benz tournament. Customers participated year after year, and each year the tournament is fully packed. Customers would meet other customers in a social context with shared interest in golf.

Knowledge of relationship marketing (relationship building), event management, and the sport of golf are accumulated over the years. And, since the event requires personnel support, it is basically a company-wide event were staff from various departments provide activity support. Knowledge is transferred and shared amongst employees of the company through the planning stage, and end of event debriefing and review. The whole process is documented including photos and videos.

Another successful customer care and relationship building effort include two service campaigns each year; the safety-check prior to Chinese New Year and air-con check prior to summer heat. The service checks are free, and subsequent repair services are discounted. As a token of appreciation, a gift pen is presented to each customer. At the beginning of the campaign more than a decade ago, the gift pen cost NT$100 (approx. US$3) including packaging. Today, the gift pen costs the same. However, quality wise the gift pen is perceived to worth about US$150-200. Customers have been known to participate in the service campaign just for the gift pen. Some of them even have our Mercedes-Benz gift pen collection. This is possible only because of persistence in having the same category of gift item, i.e. pen. Marketing was charged with the task of planning and execution of the campaigns in coordination with various operational departments. Marketing department has gained much expertise in sourcing the gift pen which cannot be achieved if different gift items were used for the service campaigns. In addition, customers have come to expect and appreciate such a gift item that competitors cannot come close to matching. Knowledge of gift pen, seemingly insignificant, relates to knowledge of relationship marketing, customer orientation and services, and management of customer expectation and hence customer relationship. This practice has survived a decade, even through a couple of successive marketing department heads and staff turnover.

CMI is also in the process of implementing an internal virtual “community of practice” in solving customer issues and problems through enterprise information portal. Since CMI service and retail outlets are located all over the island, common problems and issues can be solved more effectively and collaboratively where information and knowledge are shared. The problems and solutions are stored in a common database that can be used for e-learning/e-training programs to transfer that knowledge to new or other members of the organization.

Although CMI is far from completing the journey, there are positive signs of development and pockets of successes.

Conclusion

Knowledge-based customer relationship management is the highest sophistication of customer service as it deals with long term effects like building customer loyalty and value over the lifetime of the customer. As such, the move to this level of functional sophistication in customer relationship management is a strategic change that has colossal ramification in long-term organizational competitiveness. In spite of it, knowledge management introduction becomes paramount in the strategic plan. There are many details to be considered in taking such a challenging endeavor, i.e. cultural issues, leadership issues, supporting processes, and competency development. The amalgamation of knowledge management and customer relationship management is undeniably a strategic move, anything less undermines its potential.
Last but not least, such an integration concept could be just the tip of the iceberg as there are other major functions of the organization such that of SCM, PDM, ERP, and RNM. These functions have the same conditions or potential for knowledge management integration and consequent advancement in competitiveness.

References


Further reading


**About the author**

Chor–Beng Anthony Liew is a Walden University PhD candidate majoring in knowledge management. Anthony also has extensive experience in luxury automobile marketing, and process management. He can be contacted at: anthonylautw@yahoo.com