

Customer Relationship Management in the era of Network Competition

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Abstract

Competitive pressure has forced companies to carefully examine customer relationships in the search for more valuable deployment of their assets and implementations of retention building programs. Due to the rise of value networks customer information has become a decisive asset influencing the strategic position of a company. In this article we develop a framework for the value based approach to the Customer Relationship Management (CRM) process.

This contribution outlines a process framework conducive to maximization of the incremental value generated in the course of the customer-company interaction. We discuss an integration of relevant value measures enabling a company to manage its portfolio of customer relationships conducive to dynamic value creation resulting from the interaction of customer needs and company's resource allocation. Two core processes are identified which enable a company to add value by its customer interactions in terms of relationship quality, business opportunity and the orchestration of the customer portfolio. An integration of the current state of CRM research is presented. This is a critical step to the evolution of CRM from a domain of research to a coherent marketing discipline improving marketing productivity and strategic leverage of customer relationships. Despite the large body of research the majority of contributions to network competition resides on the building of core competencies. The relationship portfolio is conceived as the strategic asset conducive to value maximization in a network context. A process framework is developed which supports the identification of business opportunities and implementation of dynamic programs which is not reflected in most of the core competency focused research.

Customer Relationship Management in the era of Network Competition

Introduction

Competitive pressure has altered dramatically the conditions for value generation in the context of modern markets. Access to customers has become the critical resource that enables a company to navigate its assets into value adding uses (Economist 2005a). This process has transformed interaction between companies and consumers, forcing companies to design more interactive interfaces and adapt organizational structures in order to generate orders and cash-flows (Tzokas and Saren 1997). Also in many markets customers have changed their mode of buying behaviour and have developed relationships with preferred suppliers. This tendency is predominant in many industrial markets, where reduced levels of vertical integration have created room for a reduced base of preferred suppliers getting a bigger share of the customers purse (Anderson and Narus 2004, VDA 2003, Jap 1999, Dyer and Singh 1998). But also many consumer markets show signs of customers' active interest in relationships with trusted suppliers (Bolton and Lemon 1999, Payne and Holt 2001). These changes have also altered the mode of economic organization, by substituting the role model of the traditional vertically integrated industrial giant by a flexible network of companies relying on core competencies orchestrated by a front-end company (Hagel and Singer 1999, Pepper and Rogers 2000, Engardio and Einhorn 2005). Increasingly such value network integrators act as marketing agents on behalf of consumers and restrict market-access to suppliers who provide superior value (Achrol and Kotler 1999). Based on their exclusive access to customers, companies as Dell (Lawton and Michaels, Peppers and Rogers 2001) or Nike (Anderson and Narus 2004) have managed to position themselves as network integrators providing superior value to their customers and extraordinary profits for their shareholders.

These tendencies have been echoed in the realm of marketing by attempts to adapt marketing theory, research, and practice. Marketing theory has called for a better foundation of our

understanding of the context constituting market transactions. Researchers started to investigate the impact of relationships on exchange. Marketing research has shifted its focus from aggregated mass-market or segment based data to individual customer data based on one-to-one interactions. Powered by information technology and pushed by companies competing for superior customer access the share of customer centred research and data-analysis has been rising dramatically. On the strategic level the need of companies to navigate their resources into valuable uses has raised interest in a better understanding of market based assets. More and more, customer portfolios are treated as equity generating future cash-flows for the company. As a consequence customer related expenditures are increasingly viewed as an investment which has to be managed in accordance with future profits rather than as mere costs.

The decisive potential attributed to CRM is an improvement of the strategic resource allocation of the firm by identifying the most promising customers, creating value offerings for customer and guide the market based development of the company's competencies (Venkatesan and Kumar 2004).

To a growing extent companies are implementing CRM-processes in order to become customer-centered enterprises. However, despite visible successes the value contributed by CRM-programs is not always clear. While vendors of relationship technology claim that CRM projects provide extraordinary short pay-off periods and above average Returns on Investment (ROI, Swift 2001, pp. 295-318), industry analysts and academic researchers are more cautious providing mixed reports on the outcomes of CRM implementation (Gartner Group 2003, Reinartz; Krafft/ Hoyer 2004). These contradictory perceptions indicate that companies are still exploring the potential offered by CRM. Academic research has yet to develop a coherent framework for investigating, evaluating and designing CRM processes. In short, it seems CRM still is rather in the state of a domain of activities than a discipline. As Paravatiyar and Sheth (2001, p. 21) stated in order to become a discipline a domain has to

move beyond description by providing hypotheses, theory and cultivate the methodological rigor of scientific investigation.

Despite visible progress in terms of richness of concepts, analytical rigour and provided insights CRM hardly lives up to these criteria. One basic problem impeding the further development of CRM is caused in the vast array of different sometimes contradictory definitions of the CRM domain (Zablah, Bellenger & Johnston 2004). This has impeded measurement and improvement of core CRM activities offering strategic leverage for the company. Recently significant progress has been achieved by the identification of certain moderating factors influencing the value added by CRM activities (Reinartz, Krafft & Hoyer 2004). The basic implications are that CRM processes have to be adapted to different contexts and strategic goals and structural factors conducive to the incremental value added by CRM activities. Such findings open up a promising road for CRM research and practice, as soon as core processes are defined, influencing factors are identified and results in terms of value added are measured.

With our contribution we develop a coherent framework for CRM conducive to maximize the incremental value added by customer relationships according to different market situations. We start with an investigation of significant relationship approaches and integrate literature on the economic value of customer relationships. Next, we outline how CRM processes affect the customer value of the firm. Then we propose a framework and two core processes enabling a company to manage the value of its customer portfolio. Finally we sum up the managerial implications and directions for further research.

Economic Implications of Relationships for the definition of a CRM-Process

The current spectrum of relationship based marketing approaches

At present we hardly can identify a unique concept of Customer Relationship Management but a field containing a wide spectrum of approaches developed in different contexts. The

least common denominator of customer relationships to be found in the literature is to conceive them as specific approaches for relating a company to its market environment.

Currently we can identify at least three significant different approaches on how a company can relate to the market:

- The relationship-technology based approach tries to exploit the benefits offered by the dramatic cost reduction of customized communication and collaboration offered by databases, computer networks and information technology and CRM-software (Kelly 1999, Swift 2001). One of the most significant developments is the implementation of customer centric processes in industrial production with the help of concepts like mass-customization or one-to-one marketing (Pine 1993, Peppers & Rogers 1993).
- The relationship marketing approach was built on attempts to understand the role of customer relationships as the context for the value created in market transactions (Arndt 1979, MacNeil 1978). One central contribution of this research stream is the understanding of relationships between customers and companies as decisive contexts and antecedents to the value created in market transactions (Morgan & Hunt 1994).
- The customer specific approach confines itself on close relationships with a high level of commitment and trust often found in buyer-seller relationships on industrial markets. This approach highlights the value of customer specific investments. It focuses to a large extent on the downside of close relationships provided by potential opportunistic behaviour of the partners. Thereby it aims at identifying ways to safeguard relationship specific investments and develop frameworks for transaction cost efficient relationships.

In this section we discuss the economic value of customer relationships as the common denominator of relationship based approaches in order to delimit the domain of CRM, define a core process and key metrics.

Recently, significant results of research indicated that it would be worth pursuing such an integrative approach. Research about the application of different approaches showed, that pure relationship-based concepts are rarely identified but that nearly all companies use some sort of relationship-approach in order to adapt to their environment (Coviello et al. 2002). Also, research about the success of relationship-based concepts indicated the influence of moderating variables influencing the outcome of relationship-based programs (Reinartz Krafft, Hoyer 2004; Niraj, Gupta and Narasimhan 2001; Reinartz and Kumar 2000). Those results call for the study on how companies use relationships in order to add incremental value to their customer-company interactions. Furthermore results of studies on the market orientation of the firm (Kohli and Jaworski 1990; Narver and Slater 1990) call for a general investigation of customer relationships providing insights on how companies can use relationships in order to better align their processes with the market environment.

Customer Value in the economic perspective

The phenomenon of customer relationships is treated to a large extent as a consequence of structural economic changes from a manufacturing centred industrial society to a service or knowledge based post-industrial society (Quinn 1992). As this process is taking place economic performance tends to rely less on products and more on customized offerings. One consequence of marketing theory was to move attention to relationships as an antecedent and context for transactions. Social exchange theory treated transactions as an outcome of social relationships (Arndt 1979, Thibaut and Kelly 1959, Macneil 1978). This research stream focuses on qualities of relationships favouring the acquisition or the retention of customers. Relationship quality is treated as the decisive factor influencing the value created within a relationship. Trust soon was discovered as an essential antecedent for customers to engage in a relationship (Morgan and Hunt 1994). Especially in service markets, where economic

performance usually can only be evaluated after the transaction is finished, trust is the central entry ticket to the customer base.

In mature markets the attention of management moves to defensive marketing addressing the existing customer base rather than offensive marketing aiming at new customers becomes essential (Johnson and Selnes 2004). The need for improved customer retention has increased the interest in factors influencing the commitment of a customer (Reinartz and Kumar 2005). Trust and commitment have become central constructs of a research stream focusing on relationship quality (Morgan and Hunt 1994). Investments in the building of trust and commitment were seen as the building blocks of transactions and profit creation.

Theory building on relationships was motivated by the notion that such a process takes time. Therefore, theories have focused on dynamic processes of relationship evolution (Dwyer, Schurr and Oh 1987). As a consequence relationships were increasingly conceived as an investment, implying eventually negative cash-flows at the early stages of the relationship which can be cultivated to profits in later phases.

Transaction cost economics shed some light relationship value by focusing on the downside of relationship specific investments (Rokkan, Heide, Wathne 2004). Specific investments cause opportunity costs and expose partners to risks as a consequence of opportunistic behaviour of their partners.

Applications of the resource based view as e.g. resource advantage theory (Hunt and Morgan 1996) have highlighted how relationships enable a company to apply their assets to value creation processes (Dyer 2000). The resource based view treats customers as an essential resource providing a company with business opportunities for the profitable use of its assets. Moreover, resource-advantage theory has highlighted the circular nature of the relationship process, where positive outcomes of a relationship provide resources which can be used for the further promotion of the relationship.

One approach highlighting the value of customer relationships is aspect is market process theory (Kirzner 1973, Dickson 1992). This approach states, that the ultimate source of value creation is rooted in the consumer process. As soon as a company addresses a specific need more efficient than the consumer a market for its offerings arises. This enables a company to deploy its capital in a way not reflected by actual market prices and thereby create extraordinary profit (Lachmann 1978, Lewin 1998, Lewin 1999). This approach is also consistent with the increasing need to understand the customer portfolio as a market based asset enabling the company to create profit. To sum up our theoretical overview: to date we lack a comprehensive theory highlighting all relevant aspects of CRM. We can extract three basic areas which are part of the domain of CRM:

- Relationships enable the identification of business opportunities and customer solutions: Customer relationships provide companies with valuable information about customer needs enabling companies to design solutions. As products provided the entry ticket to traditional mass markets, relationships provide the entry ticket to modern value networks. In the context of value networks access to customers supersedes the importance of access to resources, as relationships tend to determine how resources are used. This has been highlighted by social exchange theories.
- Relationships enable companies to deploy resources on the basis of customer related business opportunities: Based on the increased customization options companies' transactions become dramatically more interactive compared to traditional transaction based marketing, where product definition was merely exclusively happening in the realm of the firm. Customer-company interaction enables customers to express needs and identify solutions and companies to deploy their assets to the profitable solution of customers' problems. Approaches like Transaction Cost Economics, Resource based view or market process theory highlight relationships as the impact of customer-company-interaction on value creation processes.

- **Rising significance of the Customer Portfolio:** As soon as the pre-defined product ceases to be the central trigger for the transformation of companies assets to value added cash-flows, customer relationships become the decisive market-based assets of the company. With the help of relationships companies identify profitable uses of their assets. The customer portfolio therefore becomes the central proxy for the relationships capital enabling a company to bank on its assets. This has been highlighted by resource advantage and market process theory.

The Value of Customer Relationships

From a strategic perspective customer relationships enable a company to apply its resources to value adding uses in the value network (Dyer and Singh 1998). In the context of a buyer's market gaining access to customers becomes the critical factor for the identification of business opportunities and the implementation of appropriate programs. The basic challenges are caused in the dynamic nature of customer relationships. Cultivating relationships consumes time and resources. Customer Equity has become the key metric for the allocation of the company's resources and the evaluation of marketing productivity (Rust, Lemon & Zeithaml 1994; Rust et al. 2004, Gupta/ Lehman & Stuart 2004). These investments are directed to the acquisition of new and the retention of existing customers. A key implication of customer equity for the firm is to prioritize its investments to customers providing the best prospects for value adding uses of the company's resources. The basic element for evaluating customer equity is the estimation of the discounted cash flow of each customer of a company's portfolio:

$$LV = \sum_{t=0}^{\infty} \frac{m_t}{(1+i)^t}$$

where m_t is the margin for each period t and the i is the discount rate (see Gupta, Lehmann & Stuart). In the simplest case the value of a customer portfolio can be calculated by simply

adding up the individual values of each customer. In that form customer equity can be used for customer selection, as investments are directed exclusively to customers providing incremental value to the customer portfolio.

However, financial data do not always provide the appropriate information for such a decision, as future cash-flows and value streams are the outcomes of past customer-company interaction. First of all, research on customer relationships has noted early on, that the value generated in a relationship is not static but a dynamic variable influenced by customer-company interaction. In that respect the retention Rate “r” reflects a decisive influence on customer equity not reflected in financial data (Gupta, Lehman and Stuart 2004):

$$LV = \sum_{t=0}^{\infty} m_t \frac{r^t}{(1+i)^t}$$

This decision of a customer to stay in or leave a relationship is influenced by the perceived relationship quality. The retention rate is a variable that can be influenced by a suppliers’ investments directed towards a customer (see Reinartz, Thomas and Kumar 2005). Customer relationships also show different levels of relationship quality and relationship-specific investments. Research has identified dynamics which change the relationships qualities (Dwyer, Schurr and Oh 1987) as e.g. from acquaintances to friends and from friends to partners over time (Johnson and Selnes 2004). Typically, at the beginning relationships require specific investments in the building of the appropriate relationship quality, before profitable business opportunities are identified and exploited. Eventually such profitable relationships become more intensive and valuable. The strategic positioning of a company’s assets requires a sound portfolio consisting of relationships at all different stages. Selnes and Johnson (2004) account for three types of relationships: “Acquaintances” at initial relationship stages which may be developed to “friends” or even “partners”. The value of the customer portfolio then can be represented as follows:

$$CPLV = \sum_{t=1}^n A_t + F_t + P_t$$

where CPLV denotes Customer Portfolio Lifetime Value, A_t the discounted value contributed by acquaintances, F_t that by friends and P_t that by partners by periods 1 to n . For an appropriate calculation of the CPLV factors as the retention rate and the transformation rates from acquaintances to friends and from friends to partners have to be taken in to account.

Therefore, the maximization of the CPLV rests on the steady proliferation of new relationships and a continuous augmentation of existing relationships.

The other challenge identified by recent research on customer portfolios is caused by the notion, that often times the value of a specific customer portfolio is higher than the sums of individual customer lifetime values. Especially in young high growth markets, where customers tend to rely not only on their own experiences but also the word of mouth spread by adopters, the negative effect of a lost customer can exceed the lost cash-flow by impeding diffusion. In that case conventional calculation based on CLV leads to under-investment in customer retention (Hogan, Lemon, Libai 2003).

One aspect which research is only beginning to address are much more intensive interactions not only based on imitation effects but on network effects of customer value. E.g. Gupta et al. proposed the network-effect which buyers are causing on the E-bay marketplace. Potential buyers augment the value of E-bay not by direct payments of fees but by offering a market potential for potential traders, who are charged by E-Bay (Gupta, Lehman and Stuart 2004).

In the presence of network effects relationships can be identified which are considered as best practice in terms of individual customer relationship management but who got the supplier trapped in an unfavourable network position (Ehret 2004, Christensen 1993, Christensen 1997). Therefore the network position of a company has to be reflect by metrics indicating the strategic value of the relationship portfolio of the firm.

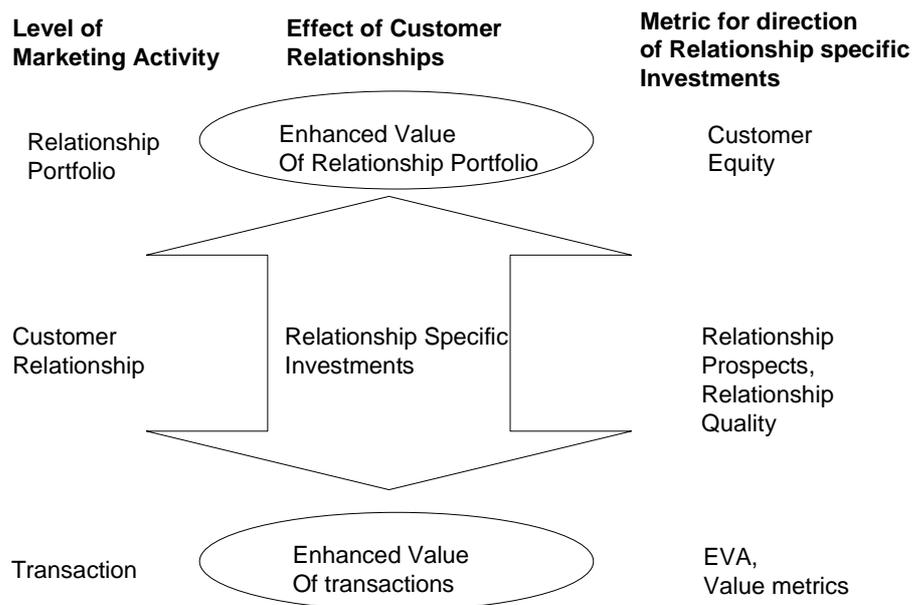


Figure 1: Customer Relationship Management and its impact on marketing activities

To sum up, relationship specific investments have to be managed in accordance with three marketing activity stages. Investments in each activity should be guided by appropriate metrics (see fig. 1):

- On the transaction level relationships help to identify business opportunities for the profitable deployment of the company's resources. On that level CRM needs data on customer needs and financial data are needed which indicate the Economic Value Added (EVA) by a transaction. These data help to direct a process of the identification of business opportunities based on customer-company interaction, which CRM literature describes as knowledge management.
- On the Customer Relationship Level customers and companies manage relationship specific investments in accordance with the expected lifetime value contributed by the partner. On that level financial data should reflect the expected Customer Lifetime Value as well as the relationship quality e.g. in terms of commitment and trust. CRM

literature has tended to depict the process directed to relationship quality as “interaction management”.

- The strategic dimension of CRM is reflected by the value of the relationship portfolio which is measured as customer equity. The strategic dimension of CRM is reflected by the process of customer portfolio management.

In the following section we investigate each of the core processes with respect to its orchestration to a value adding proposition. Thereby we discuss how core CRM processes and key metrics interact.

A Framework of core CRM processes

The dynamic nature of CRM requires us to conceive it as a process. Based on the critical value dimensions as discussed above we are now able to discuss core processes of CRM (See Fig. 2). Process inputs consist of resources, knowledge and needs of the customer as well as the company. The relationship parties deploy the investments to maximize the value of relationship outcomes. The company intends to maximize the value of its customer portfolio, measured as customer equity. Customers intend to maximize their perceived value accruing from the relationship. This can affect negatively the economic performance of the company as soon as “adverse selection” of unprofitable customers takes place. CRM can help companies to contain such problems by translating customer information into business intelligence. While CRM software and data-bases have been implemented and provide sufficient amounts of data, research and management have substantial work to do in order to improve our understanding of the business effects of customer relationship and design and implement the appropriate policies..

Based on the literature on CRM processes we are able to define two essential sub-processes. In the knowledge management process the company identifies business opportunities based on customer needs and companies resources and capabilities. The customers aim at getting

information about offerings catering to their needs. The outcome of this process is information about business opportunities on the company and solution offerings for the customer. This information enters the second sub-process, interaction management. Here company's resources are deployed on the basis of the business opportunities identified in the knowledge management process. Customer information is obtained in order to implement a customer solution. Customer equity of the firm is influenced by financial outcomes of the transaction as well as by effects of the transactions on relationship quality and thereby future cash-flows. Transaction outcomes measured as customer perceived value on behalf of the customer and customer equity on behalf of the firm. Based on relationship outcomes customers and companies prioritize their investments in their relationship portfolios.

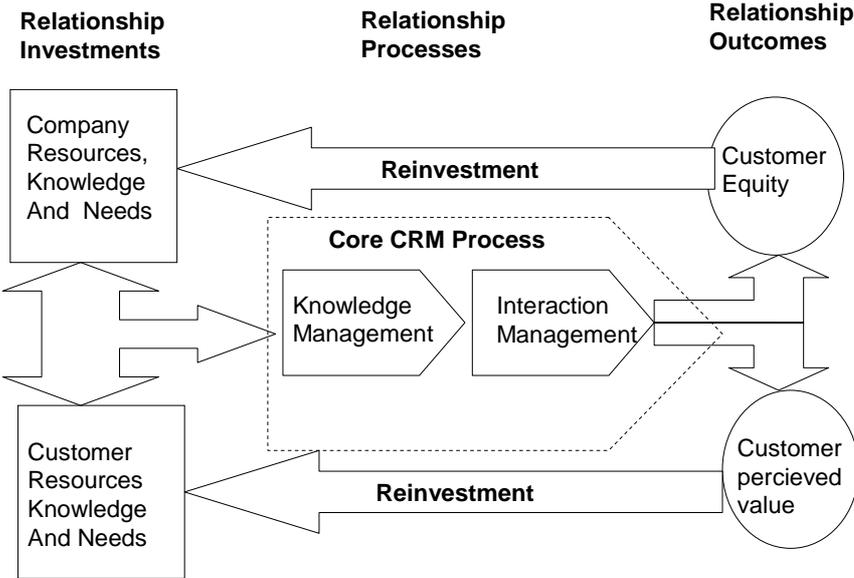


Fig. 2: The CRM Process in the course of customer-company interaction

The following sections describe the core processes addressing the basic tasks of CRM identified by marketing theory and research. The knowledge management process is concerned with the identification of customer based profit opportunities. The interaction

management process is directed towards the customer centred deployment of the companies resources and ensuring the desired level of relationship quality.

The Knowledge Management Sub-Process: Identifying Business Opportunities

One central economic motivation for the management of relationships is that company's resources have to be applied to customers processes in the course of customer-company interaction in order to produce value. Relationships gain significance when value adding resources are not given in the form of pre-defined products but have to be identified in the course of customer-company interaction. Customer induced learning processes are an important element of a wide range of business models. Customer based knowledge is the source of "lead user innovations", can spur the "diffusion of innovations" and provide crucial knowledge for the configuration of mass-customized products. Customer based knowledge can also be used as a resource for the efficient application of capital in accordance with customer orders, and for the strategic control of access to a value network by a network coordinating firm as e.g. Dell or Nike (see Achrol and Kotler 1999, Pepper and Rogers 1993, Anderson and Narus 2004). CRM literature proposes knowledge management as the core process for the building of customer based knowledge about the following fields (Zablah, Bellenger and Johnston 2004): (1) desirability of prospects, (2) customer defection intentions, (3) needs and preferences of customers, (4) likely profitability of current and prospective customers, and (5) emergence of threats.

In the CRM literature three core processes can be identified for the knowledge management process: (1) data collection, (2) intelligence generation, (3) intelligence dissemination (Zablah, Bellenger, Johnston 2004, Alavi and Lediner 2001, Fahey et al. 2001)

The basic purpose of those sub-processes is to identify business opportunities on the basis of customer needs and resource use, create relevant business intelligence and provide the

relevant information for the implementation and management of according programs and processes (see fig. 3).

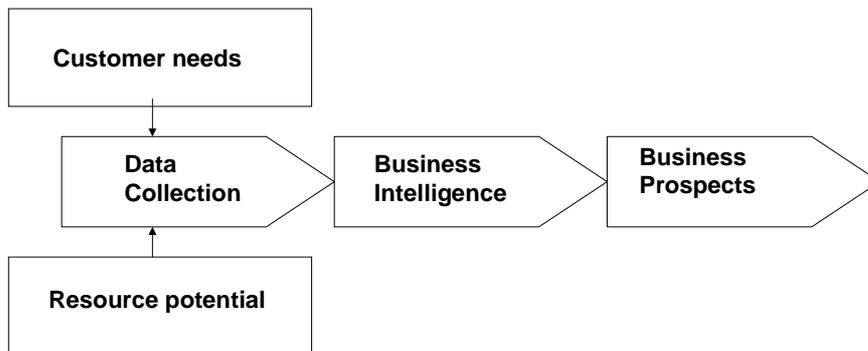


Figure 3: The knowledge management sub-processes

CRM management systems provide companies with valuable customer knowledge and also information for superior supply chain integration. This implies that customer knowledge and its use for the integration of a supply chain improve the ability of a company to back its network position by benefiting both its customers and its suppliers with superior value. The purpose of the knowledge management process from the perspective of the firm is to generate useful information for the value adding application of resource use and thereby generate profit for the firm. Ryals (2005) shows that customer managers become more value focused once provided with information about the lifetime value of their customers. As a consequence organizational learning about the lifetime value of a customer might be the starting point for the development of value generating policies. A sound implementation of CRM based processes enables a company to rely on observed rather than assumed behaviour of customers. Thereby programs as pricing or promotion can use customer specific

information in order to adapt programs to specific customers or segments in accordance with their expected lifetime value and their actual behaviour.

This process can be applied to three different levels:

- On the transaction level knowledge management resides on customer specifications (data about customer needs and resource use) which are translated into orders (business intelligence). This enables the company to offer competitive solutions to its customers and synchronize the deployment of its resources with customer orders..
- On the relationship level, customer learning can provide the company with a deeper understanding of the customer's needs. The intelligence created by a customer centric approach resides in the evaluation of customer value and the identification of cross-selling and up-selling opportunities. As a consequence based on customer related intelligence customer interaction can be prioritized. CRM systems provide companies with a huge amount of data to evaluate channel data. Also in the context of multi-channel management the difference between distribution and communication policy seems to vanish, forcing companies to align the communication via different channels with their customer base. In general the focus of customer centric learning moves from market share to the share of the customers wallet. Therefore, customer profitability is also a central issue on that stage.
- On the portfolio level the strategic positioning of the company's assets in the context of the value network is of a central concern. Customer information can be used to orchestrate a customer portfolio. Also customer information enables a company to create options for suppliers and other business partners and thereby enter a gate keeping position in the value network.

In short the knowledge management process resides on the generation of business intelligence on the basis of customer data and data about the value adding potential of resources. The output of the knowledge management process resides on information for the management of

transactions, relationships or the customer portfolio on the basis of the customer based business intelligence. The use of this intelligence in the course of programs and processes is directed by the interaction management process.

Interaction Management

Interest in the management of and research on relationships stemmed from the notion, that market exchanges are embedded in interactions between customers and companies exceeding the mere exchange of pre-defined goods versus money. Value of the relationship can be enhanced by broadening the scope to the exchange of information and intensifying the scope of social exchange. As soon as business resides on customer company interaction qualitative aspects of the customer company interaction gain significance. As a consequence exchange of information and social exchange become valuable resources which can not be measured easily in financial terms but are significant sources of the creation of value and profit. At the beginning of research on relationship stood the quest for factors favouring the willingness of customers to engage in a relationship. The two key variables influencing relationship quality discussed in the literature are trust and commitment. Trust matters as soon as direct measures of benefits and costs of a decision are not at hand. As a consequence parties can use residual information on the willingness and ability of an actor to prevent opportunism and to provide value in the course of the present and future interactions. Thereby a minimum level of trust is the essential antecedent for relationships to happen at all, while enhanced levels of trust enable higher levels of relationship quality which can be translated in higher levels of relationship benefits.

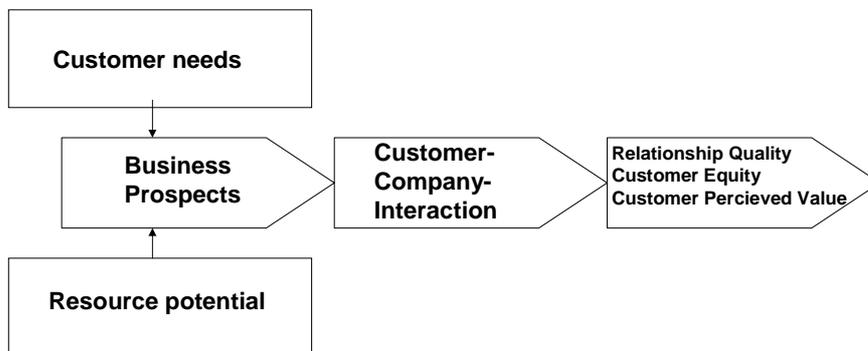


Fig. 4: The interaction management sub-process

Commitment reflects the grade of willingness to engage with a partner in a relationship.

Commitment is an important antecedent for augmenting the value of a relationship. The willingness of a customer to engage in a relationship at all resides on the level of commitment to a supplier. So the establishment of a relationship beyond a single transaction resides on minimal level of commitment. Note that re-buying may happen without being based on commitment because of the lack of alternatives. Such situations may persist as soon as monopoly-like situations can be defended but can hardly be defended as soon as competition takes place.

One puzzling question occupying many marketing researchers is how customer satisfaction affects actual customer behaviour. According to Gustafsson et al. (2005) customer satisfaction shows its effect on the calculative commitment reflecting the economic evaluation of the relationship by the customer. Faced with a sub-optimal performance during a critical incident calculative commitment is affected and eventually the relationship may be dissolved. On the contrary situational or reactional triggers not directly influenced by the company might

lead to relationship termination without affecting commitment. Therefore companies are advised to pay attention to these specific types of triggers in order to ensure the appropriate levels of relationship quality.

Interaction management is concerned with the value maximizing management of customer-company interactions. Interaction with customers has to meet customers' expectations.

Research has identified three quality dimensions determining the level of customer perceived quality of interactions (Zablah, Bellenger and Johnston 2004): (1) Interaction consistency of a sequence of buyer-seller interactions, (2) interaction relevancy, as the degree of value creation within the buyer-seller context and (3) interaction appropriateness, as the extent to which an interaction maximizes customer value and long-term return on organizational resource investments,

These conditions for interaction management pose a basic challenge for the firm which was highlighted by customer orientation literature: Central issues are the appropriate structures conducive to customer interactions, people with the capability to integrate resource streams in order with customer needs, flexible resources adaptable to customer processes and technology enabling the customer centric direction of resource streams.

Jayachandran et al. (2005) highlight that the successful management of customer relationships requires specific "relational information processes". I.e. the capture, integration, access to and use of integration implied by organizational structured has to be based on a customer centric foundation. They show that relationship technology as CRM-software or database systems provide the infrastructure enabling and promoting these processes.

Interaction management connects customers' and companies' processes on three levels:

- On the transaction level business prospects and customer needs are translated into orders. Here the resource stream is directed in order to fulfil customer requirements and assure the economic return on behalf of the company. Output of the process consists of customer value provided by the interaction.

- On the relationship level customer related business intelligence is translated into customer interactions with respect to their outcome on the perceived relationship quality. Thereby the desired level of relationship quality is in the focus of interaction management. On the relationship level consistency, relevancy and appropriateness have to be maintained. This enforces the implementation of customer centric processes conducive to the quality levels according to the customer prospects according to customer related business intelligence. Outcomes are the perceived levels of relationship quality. On both side these reside in data reflecting relationship satisfaction, commitment and trust.
- On the portfolio level external effects of the interaction are in focus. Again the main input is business intelligence generated in the knowledge management process which identifies prospects for developing customer portfolios and possible interactions on behalf of customer relationships. On the level of the segment relationships are managed with respect to their effects on the relationship portfolio. The output of that process is the quality of the customer portfolio. The financial dimension is measured in terms of customer equity. Qualitative aspects are measured in the reference potential of the customer base or the value of market relevant information captured by the customer portfolio.

Managerial implications

Customer Relationships provide a market based asset which is an essential prerequisite for the integration of a company's resources in value adding processes. The strategic leverage is spurred by conditions of network competition. There increased competitive pressure forces companies to interact with customers and adapt their program and processes. Superior capabilities in relationship management enable a company to establish itself as a network gatekeeper which controls access to customer orders and superior influence in the direction of

resource use. It gains the clout to identify business opportunities, promising customers and promising portfolios of relationships. The value of customer relationships can be influenced by the CRM process, which aims at the value maximizing management of the customer portfolio. The two core processes are knowledge management and interaction management. Knowledge management is the process which transforms information in business intelligence in form of promising transaction offerings, profitable customers and promising customer portfolios. Interaction management focuses on the implementation of appropriate programs to capture the value of identified business opportunities. One central implication is that these core processes have to be adapted to the position of the company in the value network. E.g. in markets characterized by a small customer base placing orders for complex transactions as construction projects, the CRM process is focusing the transaction and tries to generate market intelligence in the course of the interaction conducive to the generation of follow-up orders and the establishment of ongoing relationships.

In the case of lead-user partnerships relationships are managed with respect to developing markets. Thereby business opportunities on the segment level become more relevant than customer based cash-flows.

Our framework provides companies with options for a CRM based business model compatible with the specific needs of their business. However, important issues have to be addressed by future research.

Directions for further research

Our ambition to integrate the divergent streams of relationship research has identified several empty spaces opening up promising opportunities for future research. One general implication is that compared to the always present focus on core competencies as a strategic resource for the firm, the relationship portfolio seems to be a neglected area of research. Best practice cases as well as research on the financial implications of relationships indicate that

the relationship-portfolio as well as the ability to manage the relationship process enables companies to promote its strategic position within the value network. If that is indeed the case then research opportunities are provided by relationship specific capabilities and their potential for the generation of customer value and strategic positioning of the firm.

Traditionally relationship marketing and Customer Relationship Management have been considered as two distinctive even though somehow related fields of research. In the context of network competition a promising road lies in combining the relationship marketing approach which encompasses a much broader spectrum of relationships with the process-focus of CRM traditionally confined to customer specific processes. By the moment channel members or complementors exert significant influence on the relationship value, they should be included in the analysis.

Research has primarily focused on the relationship quality aspect prevalent in the interaction management process issues. In that respect relationship quality as commitment and trust can be conceived as the best understood phenomena. The call for a better allocation of marketing resources has also increased dramatically the level of research on the knowledge management level. E.g. in the financial services industry the potential created for cross-selling and up-selling leveraged by customer interaction is well studied. Building on information technologies in the marketing process research has a vast growing pool of information at hand which provides a strong source for analysis. One puzzling question is, how these data can be used to better align organizational structures conducive to a customer centred knowledge management process.

Also on the strategic level research has started investigation. Even though this has been a traditional domain of marketing, only recently investigation of the interaction between relationships and networks has been started (Ehret 2004).

Research on relationship buying focuses mainly on industrial buying behaviour and was motivated by the increased attempts of companies to implement strategic sourcing processes.

As only few contributions address directly relationship buying behaviour in consumer markets (one exception is Bolton and Lemon 1998), promising research fields seems to consist in the identification of structural factors leading consumers to enter a relationship.

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