

Collaborative Customer Management in Financial Services Alliances

Malte Geib

University of St Gallen
malte.geib@unisg.ch

Lutz Kolbe

University of St Gallen
lutz.kolbe@unisg.ch

Walter Brenner

University of St Gallen
walter.brenner@unisg.ch

ABSTRACT

The integration of the financial services industry and many financial services companies' focus on core competencies have led to the emergence of financial services alliances. These alliances face a variety of challenges regarding an integrated approach to customer relationship management (CRM) by the partner companies. In this paper we describe the challenges derived from an analysis of five financial services companies that formed different financial services alliances. The main inhibitors of a consistent approach towards customers are found in business processes and information systems that are not sufficiently integrated. Some partner companies' customer-oriented business processes only have an incomplete knowledge of their customers, which is especially conspicuous in after-sales service management and complaint management processes. The limitations of the information systems infrastructure are the source of most challenges in collaborative CRM processes. The partial standardization of CRM systems in financial services alliances inhibits the exploitation of economies of scale as well as the integration of systems. Consequently, obtaining a comprehensive view of a customer relationship becomes complicated if the integration of systems containing knowledge of customers, such as operational and analytical CRM systems as well as transaction systems, is limited. An increased integration of these systems has the potential not only to improve the quality of customer consultancy, but also to foster the exploitation of a customer's potential.

Keywords

Customer Relationship Management, Knowledge Management, Business Networks, Financial Services

INTRODUCTION

During the last few years we have witnessed a continuing trend towards integration of the financial services industry. To offer customers a complete range of financial services, many banks and insurance companies merge, or launch collaborations for the joint distribution of their products. Examples of this development in German-speaking countries are the mergers of Dresdner Bank and Allianz insurance as well as that of Credit Suisse and Winterthur insurance.

On the other hand, the financial services industry is in the middle of a structural change, a "deconstruction" of the value chain. Increasing competition and customer demands require companies to focus on core competencies in order to deliver better value for their customers.

Moreover, many companies are embarking on the concept of Customer Relationship Management (CRM) that has the potential for a positive impact on the cost-revenue ratio by aligning the company with its customers and focusing resources on high-value customers.¹ Although many companies have successfully implemented certain aspects of CRM, an integrated approach to CRM in financial services alliances remains to be developed. Most alliances confine themselves to the joint distribution of products without an intensive exchange of knowledge on customers or the performance of sales, service, and marketing activities. According to 'The Economist', "many CRM systems used by financial conglomerates cannot even tell whether a banking customer also has, say, a mortgage or a stock broking account with its various subsidiaries." (Economist, 2003)

¹ For an assessment of current research on CRM, see Romano and Fjermestad (Romano and Fjermestad, 2003).

The research questions we want to answer with this paper are

1. What are the current challenges faced by CRM in financial services alliances and what are the reasons for these challenges?

Having discovered that the challenges largely stem from the supporting information systems infrastructure, we want to answer the question

2. How can these challenges be addressed by focusing on the support of information systems?

Using case study research, we analyzed five financial services companies that are part of different financial services alliances.²

The next section introduces the theoretical background to financial services alliances and Customer Relationship Management. We also introduce the concept of Business Engineering as the analytical framework of our research. The third section delineates our research methodology, with the fourth section presenting the results. Finally, we derive recommendations for the improvement of CRM in financial services alliances, summarize our findings, and present further research opportunities.

THEORETICAL BACKGROUND

The Emergence of Financial Services Alliances

Three major trends have led to the emergence of financial services alliances. First, customers increasingly demand a comprehensive coverage of their financial requirements. This forces financial services companies to offer customer support for every financial requirement, ranging from account management to life insurance and the granting of a home loan, realizing the idea of “one-stop finance”, which is also termed “bancassurance”. The integration of different financial services is often realized by specialized companies (*relationship managers*) that have direct contact to customers as distribution intermediaries (Figure 1) (Lehmann, 2000).

Secondly, threats from new and aggressive market entrants (Knights, Murray and Willmott, 1993) as well as constantly growing customer requirements force financial services companies to focus on core competencies (cf. Prahalad and Hamel, 1990) to remain competitive. This development has given rise to a deconstruction of the industry with specialized companies or business divisions (*product providers*) focusing on the delivery of specific products and services.

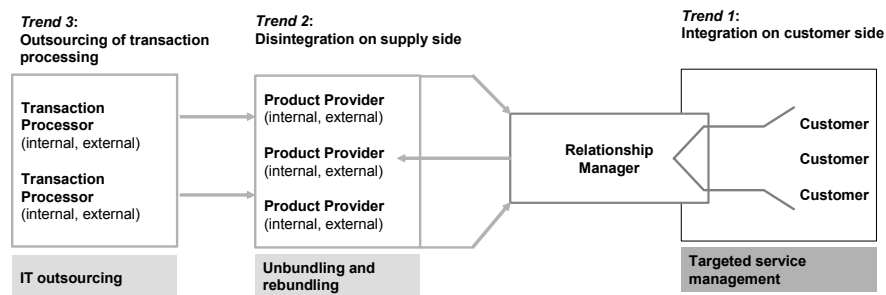


Figure 1. Trends in the Development of Value Chains in the Financial Services Industry (cf. Lehmann, 2000, p. 27).

Thirdly, financial services companies increasingly outsource transaction processing to external *transaction processors* in order to focus on their core competencies (Economist, 2003).

All of these trends have resulted in the emergence of networks consisting of relationship managers, product providers and transaction processors (Lehmann, 2000, p. 26; Heinrich and Leist, 2002, p. 336; Hagel and Singer, 1999). While each network company can focus on the delivery of a specific product or service, the objective of the entire network is to support customers in their specific *customer processes* (Österle, 2001), e.g., building a house, receiving an inheritance, moving, or vacationing. These customer processes often require several financial services as well as additional non-financial services.

² We are aware that, especially in Europe, data privacy protection laws play an important role in the exchange of customer data between different partner companies. Nevertheless, in this paper we do not contribute to this discussion as this topic has been extensively covered. For a detailed discussion see (Fjetland, 2002; Klosek, 2000; Smith, 2001; Bennett, 1997).

For example, moving may require finding an appropriate house, a home loan to buy the house, and household insurance. The ultimate objective is to support customers in every single step of a customer process to ensure a true “one-stop” experience.

In this paper, we focus on the coordination challenges faced by relationship managers and product providers.

An Analytical Framework based on Business Engineering

To structure our analysis of existing challenges in these networks, we use concepts from Business Engineering (BE) as our analytical framework. Business Engineering is the transformation of enterprises from the Industrial Age into the Information Age by means of procedure models, methods, and tools (Österle, 1995, p. 13). To control the transformation complexity, a division into several levels is often suggested (Ferstl and Sinz, 1998; Scheer, 1995). Österle et al. (Österle and Blessing, 2002) propose three levels of Business Engineering: *strategy*, *process*, and *system*, each of which deals with different business questions:

- On the *strategy* level, decisions regarding the long-term development of an enterprise have to be made. This comprises decisions on strategic alliances, company structure, market services offered, customer segments addressed, and distribution channels.
- Within *processes*, strategic decisions are implemented. A process produces a company’s services through the execution of a number of tasks with defined inputs and outputs. Questions to be answered in process development are on the planned process outputs, the optimal sequence and distribution of tasks, and on process management.
- The execution of processes is supported by information *systems* (IS) in the form of application software. The foundation for information systems is information technology (IT), consisting of hardware, networks, and operating systems software.

In this paper, we describe the challenges facing CRM in financial services alliances on each Business Engineering level.

Customer Relationship Management in the Financial Services Industry

Customer Relationship Management emerged as a response to decreasing customer loyalty in different industries. The reasons for decreasing customer loyalty in the financial services industry are manifold and closely interconnected. Three fundamental factors can be identified (cf. Walter, 2000, p. 10; Körner and Zimmermann, 2000; Krishnan, Ramaswamy, Meyer and Damien, 1999):

- *New technological opportunities*: The conceptual nature of financial services makes them ideal for distribution through electronic channels, e.g., the internet, which then makes it easier for competitors to enter a market.
- *Increasing competition by new market entrants*: Supported by new technological opportunities and deregulation, the market for financial services is being transformed into a globally-connected emporium. Non- and near-banks, e.g., telecommunication providers and financial consultancies, especially constitute a growing threat to established banks.
- *Customers’ changing behavior*: Financial services customers are increasingly self-confident, better informed about products and services, and increasingly demand services, also as a result of technological possibilities.

These factors have led to the emergence of concepts that focus on the nurturing of customer relationships (Payne and Ryals, 2001; Peppard, 2000). Customer Relationship Management emerged as an amalgamation of different management and information system approaches, in particular Relationship Marketing (e.g. Sheth and Parvatiyar, 2000), and technology-oriented approaches such as Computer Aided Selling (CAS) and Sales Force Automation (SFA) (Gebert, Geib, Kolbe and Brenner, 2003). Following Shaw and Reed (Shaw and Reed, 1999), we define CRM as an interactive approach that achieves an optimum balance between corporate investments and the satisfaction of customer needs in order to generate maximum profits. It entails:

- acquiring and continuously updating knowledge on customer needs, motivations, and behavior over the lifetime of the relationship.
- applying customer knowledge to continuously improve performance through a process of learning from successes and failures.
- integrating marketing, sales, and service activities to achieve a common goal.
- the implementation of appropriate systems to support customer knowledge acquisition, sharing, and the measurement of CRM effectiveness.

To integrate marketing, sales, and service activities, CRM requires business processes that involve customers to be fully integrated. These customer-oriented CRM processes are mostly semi-structured, and their performance is predominantly influenced by the underlying supply of knowledge on products, markets, and customers (Day, 2000; Schulze, Thiesse, Bach and Österle, 2001; Garcia-Murillo and Annabi, 2002). Gebert et al. (Gebert et al., 2003) identified six CRM macro-processes: campaign management, lead management, offer management, contract management, complaint management, and service management (Figure 2).

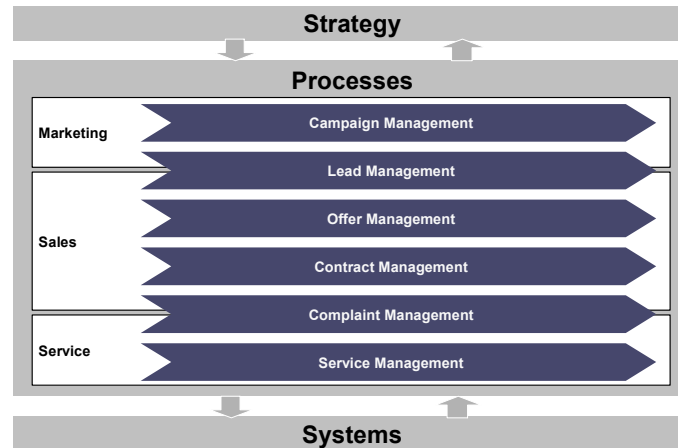


Figure 2. CRM Processes in a Business Engineering Context (cf. Gebert et al., 2003)

Campaign management is the planning, realization, control, and monitoring of marketing activities aimed at known recipients who are either current or prospective customers. The objective of campaign management is to generate valuable opportunities or “leads”, which can be further qualified by *lead management*.

Lead management is the consolidation, qualification, and prioritization of contacts with prospective or current customers. Contacts may be received from *campaign management* or other sources, e.g., the *service management* process. The objective is to provide sales staff with a qualified and prioritized list of presumably valuable customers to make the offer management process more precise and effective.

The objective of *offer management* is the consistent creation and delivery of individualized offers. An offer management process may be triggered by a customer inquiry, a qualified lead, or an otherwise discovered opportunity.

Contract management is the creation and maintenance of contracts for the supply of a product or service.

Within the scope of *complaint management*, customers’ complaints are received, processed, and communicated within the enterprise. The objectives are to improve customer satisfaction in the short-run by directly addressing problems that led to complaints, and to feed a continuous improvement process to avoid complaints in the long-run.

Service management is the planning, realization, and control of measures for the provision of services in the after-sales phase.

We used the three levels of Business Engineering and the six CRM processes as a priori specifications to shape the design of our case study research. Our objective was to obtain a more accurate deconstruction of the problem domain (cf. Eisenhardt, 1989, p. 536).

RESEARCH METHODOLOGY

Since the objective of our research was to analyze CRM challenges and opportunities in current financial services alliances, we adopted an exploratory case-study approach, which is described in this section. Our approach is based on a case study method by Senger and Österle for Business Engineering transformation projects (Senger and Österle, 2002), which is an adaptation of Yin’s methodology (2002).

Case Sites

The research data was collected in a study of five Swiss and German financial services companies (Table 1) from April to September 2003. These sites were chosen for theoretical rather than statistical reasons and selection was based on two criteria: purposeful sampling (different roles in the value chain, see Figure 1) and a willingness to cooperate (Yin, 2002). Two of the companies are product providers, one is a relationship manager, and two universal banks assume both roles.

Analyzing the different roles, we discerned different viewpoints and consequently gained a more complete picture of the possible challenges (cf. Eisenhardt, 1989, p. 537). Table 1 provides a brief overview of the case sites.

Company Characteristic	UBS Global Asset Management (UBS GAM)	HomeLoan-Bank ¹ (HLB)	Investment-Bank ² (IB)	Lucerne Cantonal Bank (LCB)	Universal-Bank ² (UB)
<i>Description</i>	Business unit of UBS, a Swiss universal bank	German home loan bank in a cooperative financial alliance with other product providers and banks (as distributors)	German fund managing company in a cooperative financial alliance with other product providers and banks (as distributors)	Independent Swiss cantonal bank cooperating with other cantonal banks and product providers	Swiss universal bank with legally independent business units (banking & insurance)
<i>Value chain position</i>	Product provider and relationship manager	Product provider	Product provider	Relationship manager	Product provider and relationship manager
<i>Business segments</i>	Asset management	Home loan funding	Investment funds, asset management	Retail and private banking, asset management	Corporate/ retail/ private banking, insurance
<i>Total assets</i>	€ 340 billion	€ 30 billion	€ 100 billion	€ 11 billion	€ 640 billion
<i>Employees</i>	ca. 3,000	ca. 3,000	ca. 2,000	ca. 1,000	ca. 75,000
<i>Customers</i>	ca. 1,000 institutional investors	ca. 6 million private investors	ca. 4 million private and institutional investors	ca. 590,000 private and institutional customers	ca. 3 million private and institutional customers
<i>Analyzed relationships</i>	Cooperation with other UBS business units focusing on institutional investors	Cooperation with other product providers and banks within the alliance	Cooperation with other product providers and banks within the alliance	Cooperation with other cantonal banks and product providers	Cooperation between banking & insurance business units

Table 1. Overview of Case Sites

Data Collection

In all five cases, data was collected through semi-structured interviews with key informants and a document analysis of annual reports, organizational charts, and system charts. The structure for the central semi-structured interviews was provided by Senger and Österle's case study method (Senger and Österle, 2002). The interview questions were based on the classification of the Business Engineering levels *strategy*, *process* and *system* and may be summarized as follows:

- *Strategy*: Why and how do you cooperate with partner companies in a financial alliance?
- *Process*: How do you cooperate in the CRM processes of marketing, sales and service and in product development?
- *System*: How is this cooperation supported by information systems?
- *CRM challenges*: What are the challenges and opportunities in the area of CRM collaboration (on the strategy, process, and system levels)? How do you address them?

To clarify and elaborate on the case descriptions, they were reconciled with the interview partners, and sometimes required further interviews.

Data Analysis

We used a two-stage strategy for data analysis (Yin, 2002). During the first stage, the *within-case* analysis of the data from each case study site was undertaken. The objective was to build an explanation of the case, using a cycle of deduction and induction. The validity of the data was ensured through multiple sources of evidence, reviews of case interpretations by interviewees and a chain of evidence provided by the case data.

The second stage involved the *cross-case* analysis of the data, thus locating and examining similarities and differences across the five cases. In the process, the companies' different roles in the financial services value chain had to be taken into account. The objective was to generalize beyond the data and, through this, discover the challenges that play an important role in financial services alliances. These challenges are described in the following section.

ANALYSIS AND DISCUSSION OF CRM IN FINANCIAL SERVICES ALLIANCES

Strategy Level

On the strategy level, we observed that all of the companies cooperate *horizontally* with other financial services companies or divisions offering complementary products. Except for the two universal banks, the companies are part of financial services alliances with *vertical* cooperation, i.e., between product providers and relationship managers (mainly banks). In contrast, the universal banks have their own product-oriented divisions and distribution organizations.

The companies mentioned four strategic objectives of cooperation with partner companies. The two most prevalent ones were 'comprehensive coverage of financial demands of customers' and 'new distribution channels and customers'. The fact that these objectives were mentioned for horizontal as well as for vertical collaboration illustrates that they can be achieved by either collaboration. They also emphasize the importance of trend 1 (integration on customer side, see Figure 1). In addition, LCB mentioned 'economies of scale' as a major objective of collaboration with other cantonal banks. This is due to the fact that, as a small relationship manager, LCB can achieve improvements in productivity by using the same CRM systems as other cantonal banks to support standardized CRM processes. Moreover, LCB sees the standardization of products and processes as a prerequisite to the standardization of systems, which itself is a prerequisite for IT outsourcing (trend 3).

Finally, UBS GAM sees the merging of customer knowledge owned by different divisions of UBS as its major goal, the aim being to create a more complete customer view to better address their needs and to identify potential customers.

Regarding challenges on the strategy level, three companies mentioned overlapping competencies in different partner companies (or business units in the case of UBS GAM) as a major challenge. This can lead to redundantly executed processes (see next section) with inconsistent results. Moreover, in alliances between legally independent companies, data privacy protection can inhibit the exchange of customer knowledge.

Process Level

On the process level, we analyzed collaboration in the CRM processes (see Figure 2) as well as in product development.

Although all companies cooperate with partners in *product development*, cooperation is often not strategic, but reactive to market demands. For example, HLB and IB offer a composite product in reaction to changing market demands as a result of changing regulations. UBS GAM jointly develops complex products with other business units to address institutional investors' demands. In contrast, LCB jointly standardizes commodity products with other cantonal banks in order to achieve economies of scale by using the same CRM processes and supporting information systems.

Strong collaboration can also be found in marketing. Most partner companies conduct joint market research activities. Some *campaign management* activities are also performed jointly, especially with respect to composite products.

The main focus of cooperation is on sales processes, particularly *lead management* and *offer management*, because in sales processes, cooperation can lead to direct results in the form of additional turnover. Regarding lead management, three companies exchanged customer information - identified only by customer numbers - with partner companies to tap the potential of the partner's customers. As far as offer management is concerned, most companies also offer their partner companies' products. There is usually a "preferred provider" status between partner companies, i.e., the partners' products are preferably sold to their own customers.

The least intensive cooperation was observed in *service management* and *complaint management* processes. These processes are mostly handled by each partner company individually for their respective products, because collaboration would require the exchange of extensive customer and product knowledge, which the underlying CRM systems do not support. Consequently, a customer of a financial alliance often has multiple contact persons in the various companies of the alliance. The most prevalent challenges on the process level were:

- *Insufficient transparency regarding customer knowledge*: Due to legal constraints and bank-focused CRM technology (see next section), product providers only have customer knowledge related to their specific product and do not, therefore, have a complete overview of their own customers, let alone customers of their partner companies. Only banks

with direct contact with customers can obtain a complete overview of a customer's characteristics and product use. Strict data privacy protection laws often prevent banks from sharing customer knowledge with their product providers.

- *Redundant tasks*: To obtain or update specific knowledge about customers, redundant tasks are sometimes undertaken by both product providers and distributors, e.g., changing a customer's address or determining a customer's estimated credit rating, financial circumstances, and external exposure.
- *Different contact persons for a financial alliance customers* (no 'single-point-of-entry'): Customers often have different contact persons - sometimes one for every product they own - in a financial alliance. This is especially prevalent in complaint and service management processes.

In conclusion we observed that all companies cooperated in CRM processes and product development, with a focus on sales processes. Nevertheless, most cooperation is reactive to market demands or confined to the development and distribution of composite products. More comprehensive cooperation, especially in service management and complaint management processes, is hindered by insufficient transparency regarding customer knowledge and redundant task distribution between partner companies.

System Level

On the system level, we observed that in most financial services alliances there is a wide variety of separate analytical and operational CRM systems as well as different transaction systems that are not standardized or seamlessly integrated.

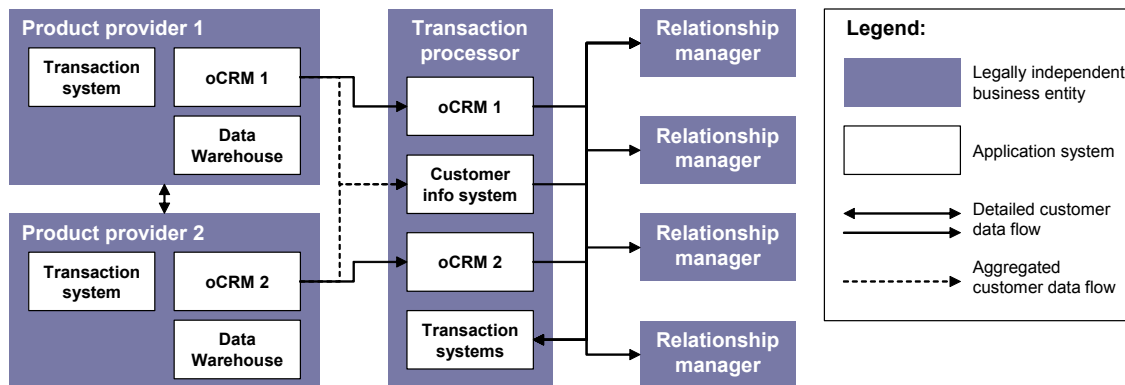


Figure 3. CRM Application Architecture of the Financial Services Alliance of One Case Site

An exemplary CRM application architecture of one financial alliance which we studied³ is shown in Figure 3: Each product provider operates its own application systems – *transaction systems* and *operational CRM* (oCRM) *systems* (cf. Gebert et al., 2003) – containing all relevant knowledge about customers (e.g., the contacts and characteristics of a customer's products). Moreover, many product providers have an infrastructure for analytical CRM, including a *data warehouse*. Various relationship managers (banks), that jointly own a transaction processor (Figure 1) in order to achieve economies of scale, are the product providers' main distributors. The transaction processor operates the *transaction systems* for all banks. Moreover, it hosts copies of the product providers' *operational CRM systems* to give the banks' customer consultants insight into the customer information owned by the product providers. In one of the financial alliances we studied, a bank's customer consultants have to cope with its product providers' approximately 30 different operational CRM systems. In addition, to provide customer consultants with an overview of the products owned by a customer, each product provider regularly transmits the most important, aggregated customer information to the transaction processor. This information is then integrated into a *customer information system*, comprising aggregated customer information from all product providers.

³ In certain instances, confidentiality rules do not allow us to specify the financial network and the details of the architecture to which we refer.

In addition to data exchange with the transaction processor, some product providers also exchange anonymous customer data between each others to support the decentralized lead management processes of each product provider (see previous section). This data exchange is usually informal and achieved via a flat file exchange.

Level	Characteristic	UBS Global Asset Management	Home Loan Bank	Investment Bank	Lucerne Cantonal Bank	Universal Bank
Strategy	Business network relationships	Horizontal (to other UBS business units)	Horizontal (to other financial product providers), vertical (to distributing banks)	Horizontal (to other product providers), vertical (to distributing banks)	Horizontal (to other cantonal banks), vertical (to product providers)	Horizontal (between banking and insurance business units)
	Objective of collaboration	Comprehensive coverage of financial demands, combination of customer knowledge to utilize customer potential	New distribution channels & new customers, comprehensive coverage of financial demands	New distribution channels & new customers	Comprehensive coverage of financial demands, economies of scale	New distribution channels & new customers, comprehensive coverage of financial demands
	Challenges	Overlapping competencies in different business units	Overlapping competencies in different partner companies, protection of data privacy hinders exchange of knowledge	Overlapping competencies in different partner companies, protection of data privacy hinders exchange of knowledge	-	Protection of data privacy hinders exchange of knowledge
Process	Product development	Joint development of complex products with other business units	Development of combined products with other product providers	Development of combined products with other product providers	Standardized commodity products for cantonal banks of an IT cooperation	Joint product development in contractual relationship
	Marketing	Joint marketing activities with other business units	Joint marketing activities with other product providers and distributing banks	Joint marketing activities with other product providers and distributing banks	Joint marketing initiatives with other cantonal banks	Joint marketing activities of banking & insurance units
	Sales	Collaborative lead management with other business units	Collaborative lead management with other product providers and distributing banks, mutual distribution of partner products (of product providers)	Collaborative lead management with distributing banks, sales support for distributing banks	Distribution of partner products (of product providers)	Mutual distribution of products between banking & insurance units, collaborative lead management
	Service	-	First-level service by banks, second-level service by product providers	First-level service by banks, second-level service by product providers	-	-
	Challenges	Insufficient customer knowledge exchange between business units	Product providers have insufficient knowledge about customers, redundant tasks in different partner companies	Unsystematic gathering of customer knowledge	Unsystematic gathering of customer knowledge, standardization opportunities in commodity products and processes	Loose sales collaboration between banking & insurance units
System	CRM applications	7 separate operational CRM systems (in different business units)	Wide variety of separate analytical and operational CRM systems for each product provider and banks (more than 30)	Wide variety of separate analytical and operational CRM systems for each product provider and banks	Standardized CRM solution for cantonal banks of an IT cooperation	Separate CRM systems of banking & insurance units
	Customer data exchange	-	Systematic data exchange with banks via processing centers, ad hoc flat file exchange with product providers	Systematic data exchange with banks via processing centers	Systematic data exchange with product providers (not with other cantonal banks)	Anonymous customer data exchange via flat files between banking & insurance units
	Challenges	Distributed CRM and transaction systems inhibit an integrated customer view	Standardization and integration of CRM systems, integration of customer data	Standardization and integration of CRM systems, integration of customer data	Further standardization of CRM systems	-

Table 2. Characteristics and Challenges of Collaboration in Customer Relationship Management

The main challenge on the system level is that the wide variety of separate CRM systems and transactional systems inhibits an integrated view of customers. We noted the following detailed shortcomings:

- *Insufficient integration of operational CRM systems:* Relationship managers' customer consultants frequently have to cope with a large number of different operational CRM systems that are used by different product providers. This complicates the need for high quality sales and service management, because customer consultants are often unable to find and integrate required customer information.
- *Insufficient integration of customer data sources:* Each product provider often has his own separate customer database and data warehouse, complicating an analysis of a customer's overall relationship with a financial alliance.
- *Insufficient integration of qualitative (CRM systems) and quantitative (transaction systems) customer data:* The lack of integration between operational CRM systems and transaction systems leads to a separation of qualitative and quantitative customer data in these systems, which furthermore impedes an integrated customer view.

In conclusion, we observed that CRM application infrastructures in financial services alliances are largely dispersed as well as lacking integration. This leads to challenges in the collaborative processes, especially in sales and service processes.

Table 2 summarizes the findings on the strategy, process, and system levels of the case study sites.

Recommendations

As we have shown, the emergence of financial services alliances has led to challenges on the strategy, process, and system levels. In addition, we have shown evidence that challenges on the process level can largely be traced to shortcomings on the system level in the form of non-integrated CRM systems.

Based on our analysis, we derived the following recommendations for the improvement of CRM in financial services alliances:

1. **Distribute disjoint CRM competencies among partners of an alliance:** Overlapping competencies lead to task redundancy in the different companies, as well as to redundant systems, and may result in inconsistent results. To increase efficiency, each partner should focus on core competencies through which the advantages of disintegration (trend 2, Figure 1) can be exploited.
2. **Establish single-point-of-entry for customers:** To realize service integration on the customer side (trend 1, Figure 1) and to promote the concept of a relationship manager, multiple contact persons for a financial services alliance's customers have to be abandoned in favor of a single-point-of-entry. Nevertheless, relationship managers and product providers can jointly perform the execution of business processes, e.g., service management.
3. **Establish transparency regarding customer knowledge among partner companies:** To prevent task redundancy and to support collaborative CRM processes, customer knowledge has to be shared among the companies of a financial services alliance while taking data privacy protection laws into account.
4. **Integrate CRM systems of different partner companies:** To reach the above-mentioned goals, it is imperative to integrate customer data (derived from transaction systems and data warehouses) and to integrate operational CRM systems to create an integrated view on customers.

Since the integration of CRM systems across partner companies plays a crucial role as far as collaboration in CRM is concerned, we discuss the fourth recommendation in more detail.

For the integration of CRM systems, there are two alternatives: the standardization of systems (*ex ante* integration) and the integration of systems using an integration infrastructure (*ex post* integration) (Ruh, Maginnis and Brown, 2001; Linthicum, 2000). The first alternative may be practical for the business units of a universal bank, where standards can be established more easily than in an alliance with legally independent companies. *Ex post* integration using an EAI (enterprise application integration) infrastructure may be especially useful in such loosely coupled networks. In practice we expect to observe a mixture of both *ex ante* and *ex post* integration of CRM systems.⁴ Based on our research, we suggest the following application architecture for CRM in a loosely coupled financial services alliance (Figure 4).

⁴ For a detailed discussion of the effects of EAI technology, see (Ruh et al., 2001; Linthicum, 2000).

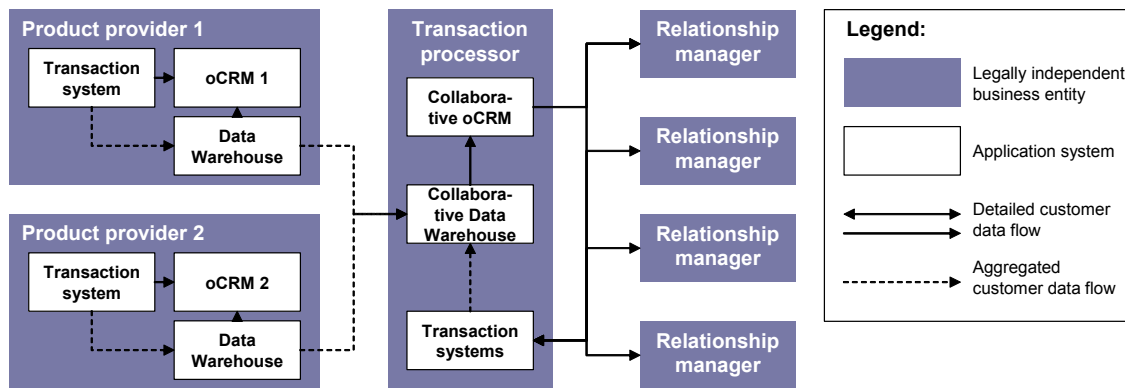


Figure 4. CRM Application Architecture for CRM in a Loosely Coupled Financial Services Alliance

The transaction processor hosts a *collaborative oCRM* system which serves as the integrated and only source of customer knowledge for customer consultants of relationship managers. The collaborative oCRM system is based on a *collaborative data warehouse* where all the customer data from product providers and relationship managers are combined and aggregated. It is particularly important that data access rights to the data warehouse are only assigned to the employees of product providers and relationship managers in compliance with existing data privacy protection laws.

The advantages of such architecture, when compared to the existing architecture of Figure 3, are a single operational CRM system for relationship managers based on a consistent data source that integrates customer data across the alliance, as well as a consistent data exchange between partners via the transaction processor's systems. The suggested architecture has to be enhanced and validated in further research.

CONCLUSION AND FURTHER RESEARCH

The emergence of financial services alliances has led to challenges related to an integrated approach to CRM among partner companies. Whereas on the strategy level, the elimination of redundant competencies among partner companies has the potential to provide opportunities for improvement, the main inhibitors of integrated CRM can be found on the process and systems level.

Both product providers and relationship managers often have customer-oriented business processes with incomplete customer knowledge. Moreover, redundant tasks are undertaken by more than one company in an alliance, e.g., the detection of a customer's external exposure. Having different contact persons for each product, some alliances have still not implemented the idea of one-stop finance for customers. This is especially evident in after-sales service management and complaint management processes.

Most challenges in inter-organizational CRM processes can be traced to the limitations of the information systems infrastructure. An incomplete standardization of the CRM processes and systems inhibits the exploitation of economies of scale as well as inhibiting systems integration. Consequently, a limited integration of systems containing customer knowledge, such as operational and analytical CRM systems as well as transaction systems, complicates the process of obtaining a comprehensive view of a customer relationship. An increased integration of these systems suggests an opportunity not only to improve the quality of customer consultancy, but also to improve the exploitation of a customer's potential. We derived the following recommendations from our analysis of financial services alliances:

- Distribute disjoint CRM competencies among partners of an alliance.
- Establish single-point-of-entry for customers.
- Establish transparency regarding customer knowledge among partner companies.
- Integrate the CRM systems of different partner companies.

Our study provides the initial basis from which CRM application architecture should be designed in financial services alliances. However, to develop detailed guidelines for such an architecture, it is necessary to conduct further research. Our objective is to analyze financial services alliances' CRM application architectures to derive guidelines in the form of a reference application architecture that can overcome the shortcomings observed. Using additional case studies and quantitative empirical research we shall try to validate the developed architecture.

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