ALIGNMENT OF WEB SITES TO CUSTOMER PROCESSES

A Study in the Banking Industry

Nicole Kahmer

Fidelity Investment Services GmbH, Kastanienhöhe 1, 61476 Kronberg i.Ts, Germany

Juergen Moormann

HfB – Business School of Finance and Management, 60003 Frankfurt/M., Germany

Keywords: Banking industry, Customer processes, Internet banking, Web site ranking

Abstract:

Banks continually claim to supply customer-orientated services. However, banking services are still focused on purely delivering financial products. Customers will usually receive financial products but often no specific solution to their true problem. In that way, customers' perception of banking services is often far from satisfaction. In addition, important targets of marketing strategy (e.g., customer loyalty, cross- and upselling) do not get achieved. Therefore, the consistent alignment of financial services to customer processes becomes increasingly important and will significantly enhance the competitiveness of banks. This paper investigates the extent of customer support provided by banks with respect to the customers' problem solving process. The study focuses on the Internet as one of several customer interfaces within a multichannel approach. The paper delivers the theoretical framework of customer processes and provides an empirical identification of customer processes. The main part of the study is represented by the evaluation of 100 Web sites of banks. As a result, the paper reveals that most of the analyzed Web sites fail to assist customers within their processes. However, the idea of supporting customer processes is spreading. It will become a major challenge to transform the banks' traditional product-driven view into a consequent customer-driven approach.

1 INTRODUCTION

With only a few exceptions, almost all banks operate in the field of "sales and distribution". Within this part of the value chain the majority of banks focus on private customers as one of their most relevant clientèle. Today, the competition on these clients is getting more and more intense and, at the same time, the behavior of private customers is constantly changing: They are increasingly better informed, they claim an appropriate price-performance ratio, and their loyalty towards traditional banks is diminishing. Search engines (e.g., Google, Yahoo!, as well as intermediaries financescout24, mortgageforless) support the comparison of various offerings and consequently the willingness to pick cherries.

In order to differentiate themselves from their competitors, many banks try to create the customer/bank relationship actively. A popular attempt is to put the customer 'into the center of all

banking activities'. Up to now, these efforts run out by offering efficient and obliging customer services while disregarding an important aspect of customer orientation: During a banking transaction, a client finds himself amidst a certain customer process and in need of a variety of products and services. Unfortunately, the customer usually has to compose the respective elements by himself. There is no doubt that the degree of customer orientation will become a major success factor in the future. Hammer (2002, p. 15) describes this trend as the "customer economy". A promising emerging approach to improve customer orientation is the consequent alignment of all banking services to the processes running at the customers, regardless which distribution channel the customers use (Schmid, R., Bach, V., and Oesterle, H., 2000, p. 3).

This paper shows whether and to what extent banks actually support their customers' processes. Basically, all access points (branch, Web, call center etc.) to the customers are relevant. However, it can be assumed that the Internet – as the latest and most innovative distribution channel – is the most likely channel to really support customer processes today. For this reason, our study focuses on the reflection of customer processes in the banks' Web sites.

2 LITERATURE REVIEW

2.1 Definition of customer processes

A customer process can be characterized as the entire procedure customers pass through to meet a desire or to solve a problem. Such a process comprises every single step until a specific wish has been fulfilled or the solution for a problem has been found. During this process, the customer needs a multitude of information, services, and financial products which usually will be acquired from different suppliers. Typically, customers have to get in touch with all different suppliers instead of dealing with just one partner leading the customer through the process (Buehler, W., 2004; Moormann, J. and Wilkerling, C., 2003; Schmid, R., Bach, V., and Oesterle, H., 2000).

The following example illustrates the actual procedure: A customer approaches a bank to apply for a loan for her housebuilding project. This demand has been derived from the original desire "Housing" which can be seen as a customer process (Niemeyer, V., 2003, p. 144; Winter, R., 2002, p. 42). There are several ways to fulfill this desire. One might be the acquisition of a new home (Fey, B. et al., 2000, p. 261). In most cases, banks offer only a few interfaces to the client along this exemplary customer process. The main - and often the only interface within this process is financing of the new home. But the customer depends on a number of further services from other providers, e.g. architect, building contractor, insurance company et cetera. Thus, banks do not support the whole customer process. They are rather the supplier of a singular separate service within a comprehensive and complex problem solving process (Niemeyer, V. and Thymian, M., 2002, p. 14).

Customer processes which aim to buy a product or to sign a contract correspond to multi-step approaches like the Customer Buying Cycle (CBC). This basic concept comprises four phases, i.e. stimulation, evaluation, purchase, and after-sales phase (see the overview in Reichmayr, C., 2003). First of all, the customer collects and assesses all necessary information (stimulation phase and evaluation phase). Later the customer gets to her purchase decision and conducts the transaction (purchase phase). At the end of the product's life

cycle the contract expires, the product has to be disposed of or the customer needs further services associated with the initial purchase (after-sales phase). The steps largely depend on the respective customer process and the specific needs of the customer (Muther, A., 2002, p. 14; Winter, R., 2002, p. 42). Piller and Moeslein (2002, p. 10) describe this approach as "integrating the customer into value creation".

2.2 Current situation in the banking industry

As an impact of modern information and communication technologies, customers raised their demands to the banks' services and products considerably. It is not decisive to cover the whole value chain, but for the majority of banks it is rather a question of having the most intense customer contact and thus having the chance to make full use of the information on customer needs and desires (Oesterle, H., 2000, p. 23). Due to the rising percentage of electronic transactions, it becomes possible for banks to gather and evaluate large quantities of customer data and, as a consequence, to develop individual product offerings and to actively design customer relationships.

Since the emergence of digital distribution channels, the dependence of banks on physical presence is decreasing. According to this fact, access barriers to the banking sector are falling and new financial services providers with more favorable cost structures and superior price-performance ratios penetrate the market. Near banks like insurance companies (e.g., Allianz, Prudential) as well as non banks (e.g., DaimlerChrysler, Tesco, Volkswagen, Woolworths) more and more intrude into traditional banking reservations.

The banks' situation gets even more difficult because customers tend towards holding accounts at several banks at the same time. They compose favorable products and services from different institutions integrating them into a comprehensive problem solving portfolio. Thus, a customer is quasi isolated in her customer process and tries to manage the integration of different partners.

2.3 The Internet as a touch point to the customer

To evaluate which financial products will succeed in the age of Internet, it is essential to consider the different specifications of a transaction from a customer's point of view. Important parameters in this context are complexity, frequency, and the perceived importance of a transaction. For instance, the majority of customers would prefer signing a mortgage contract with some sort of support by their bank adviser rather than doing the same by themselves via the Web.

Within the context of multi-channel banking, the distribution of products and services via the Web does not constitute a stand-alone solution because many trans-actions touch several distribution channels successively. E.g., a customer can obtain information from her bank adviser, via the call center or the company's Web site. The closing of a contract and further service demands can also be conducted via different channels. Therefore, the Internet presents (just) one of several "customer touch points" (Schwanitz, J., Rathsmann, T., and Levermann, V., 2002, p. 331).

The distribution of banking products via the Internet will only be successful if the provided information offers the customer an added value compared to traditional distribution channels. The added value can be derived from the interactivity, the geographical and temporal independence as well as the Web's potential for graphical representation (Lange, A. and Waeschle, A., 1998, p. 98). Value added services support conducting customer processes and increase customer loyalty (Moormann, J. and Wilkerling, C., 2003). Hence, appropriate criteria had to be integrated in our evaluation of Web sites.

3 IDENTIFICATION OF CUSTOMER PROCESSES

Although current literature shows a number of definitions and examples of customer processes (e.g., Oesterle, H., Fleisch, E., and Alt, R., 2001; Hagel, J. and Singer, M., 2000, p. 86), it is hard to find an explicit and consistent list of customer processes or to find even an appropriate classification. This section (chap 3) provides an empirical identification and categorization of customer processes. This investigation will be the basis for the second part of our study, the evaluation of the banks' Web sites (chap 4).

3.1 Methodological approach

Banks should only support those customer processes which are assumed as relevant and important to them. Furthermore, there should be a certain desire of customers to be supported by their bank. Accordingly, there is no need for banks to support

entire processes for which customers do not feel the need for assistance.

have conducted a comprehensive questionnaire to identify and classify relevant customer processes. 373 students of HfB – Business School of Finance & Management, Germany, have been asked to participate in this study. The respondents major in business adminis-tration and work in the banking industry. Owing to their compulsory employment contract, it is guaranteed that all respondents maintain at least a checking account. By virtue of this background, it can be assumed that the respondents show a basic understanding for the topic of the questionnaire. However, it must be taken into account that the students could be biased regarding their expectations of the support of customer processes - compared to private clients who do not have an employ-ment relationship with a bank.

The main focus of the survey is an assortment of 30 activities or events with tangible and intangible character which we suggested as possible customer processes. These activities have been analyzed by means of different questions concerning the classification as a customer process, as relevant for banks and as important to be supported by banks. We received 264 completed questionnaires which corresponds to a return rate of 70.8 per cent.

3.2 Survey results

A central issue was how important certain customer needs are within the scope of a financial decision. It came out that all needs have been regarded as at least "neutral", "important", or "very important" for the respondents. The results indicate that to some extent customer needs during the stimulation and after-sales phase seem to be more important than customer needs during the purchase phase. This highlights the necessity for banks to support their customers during all phases of the CBC and not to focus on contract closures only.

Table 1: Classification of identified customer processes

Class A	Class B	Class C
retirement	buying or selling	buying and
(90,5%)	a car (54,9%)	administrating of
desire for support	desire for support	IT (58,7%)
97,4%	= 53,0%	no desire for
		support = 75,8%
buying or selling	Buying and	travel planning
a house (79,9%)	protection of	(55,3%)
desire for support	household goods	no desire for
= 53,0%	(59,5%)	support = 78,0%
	desire for support	
	= 68,9%	
pension coverage	private adminis-	further
(80,3%)	tration (58,3%)	(professional)
desire for support	desire for support	education
= 96,2%	= 84,5%	(46,2%)
		no desire for
		support = 52,3%
covering risks	renting and	renovation/
(81,4%)	furbishing an	home improve-
desire for support	apartment	ment (44,7%)
= 97,4%	(55,3%)	no desire for
	desire for support	support = 58,3%
	= 51,1%	
processing event		
of death and		
inheritance		
(51,5%)		
desire for support		
= 85,3%		
asset		
building/financial		
planning (96,4%)		
desire for support		
= 96,2%		

Those activities or events which have been identified as a "total or predominant" customer process are shown in Table 1. Furthermore, we linked them with the respective wish of the respondents to be supported by banks. The processes have been classified into three classes, depending on their banking affinity. The numbers in brackets show the degree of the proximity of each customer process to the respective class. The desire for assistance by banks is also given in percentages.

Processes attached to Class A represent issues of the traditional core business of banks. All processes but "Processing event of death and inheritance" are assumed as banking affine with at least 80 per cent. Class A is also characterized by the respondents' strong desire for support by banks and their cooperating partners.

Customer processes of Class B just get limited or even no support by banks. Here, opportunities arise

to help customers much more within their processes. This is based on the confidence customers put into banks and on the knowledge banks have gathered on their customers. For all processes of Class B the interviewees show the demand for assistance. This indicates that the offering of products and services which exceed the traditional core competences of banks could gain hugh importance in the future.

The processes allocated in Class C feature a truly intangible character. Banks and their co-operating partners just have little knowledge on these activities. Therefore, it seems rather difficult for banks to offer sufficient support here. This is confirmed by the fact that the majority of respondents does not want any assistance within these processes anyway.

In summary, it may be said that the respondents wish further assistance from their banks, but only regarding customer processes for which they expect the banks' competence. Obviously, the interviewees were not aware of or did not consider the possibility that banks could also possess knowledge on nontraditional respective non-financial issues. Thus, banks should not focus on the support of these customer processes but rather concentrate on more classical banking topics and care for a support of the entire processes. It will be a real challenge to align all business processes to the customers' needs and to deliver all relevant interfaces concerning customer processes of Class A. After achieving this goal banks may have further potential to support additional customer processes.

4 EVALUATION OF WEB SITES

The aim of the following research was to analyze to what degree the Web sites of banks support processes of their customers. For this purpose, we selected three relevant customer processes based on the survey shown in chapter 3. We evaluated the alignment to customer processes by means of a catalogue of specific criteria.

Our investigation comprises a total of 100 Web sites from banks in Austria, Germany, Switzerland, UK, and USA. Due to the accent on banks in Germany, the criteria focus primarily on German customers' needs. However, the criteria catalogue also includes country specific needs of customers in Austria, Switzerland, UK, and USA. The empirical data collection follows strictly the customer's perspective and uses information and content from publicly accessible banking Web sites only. The data have been collected from Q4 2002 to Q2 2003.

4.1 Definition of the sample

The objects of our investigation are the following six national banking groups: *Germany* (58 banks), *Austria* (6 banks), *Switzerland* (6 banks), *UK* (5 banks), and *USA* (25 banks). In the case of Germany we selected the 50 largest banks (measured by total assets) with an explicit focus on private customers. In addition, the investigation includes 8 online banks because it can be assumed that they are privileged to support customer processes online due to their specialization on the Internet. The banks of the other groups, i.e. Austria, Switzerland, UK, and USA, have also been selected by the criterion of total assets and a minimum degree of private clients focus

4.2 Evaluation categories

The Web site evaluation has been divided into two categories: content and structure. Our emphasis lay on the category "Content" and referred to the offering of information by the included banks during all phases of the CBC. In our investigation we analyzed three customer processes (all out of Class A). The customer desire buying or selling a house is specified as the customer process "Housing". The issues retirement care, pension coverage, and covering risks have been included in the process "Caring for one's old age" which covers all three customer needs. "Asset building/financial planning" is the third customer process we selected for our evaluation. These three customer processes have been assessed from our respondents as highly affine to banking. Additionally, the participants expressed a strong desire to get support on these processes from banks and there partners.

The category "Structure" is the second group of evaluation criteria. The Internet provides access to almost all necessary information. Thus, in the future, it will be highly relevant for banks to assist customers within the information overload. According to this, the category "Structure" comes up to the customer's desire for transparency to simplify their processes.

4.3 List of criteria

The resulting list of criteria comprised a total of 64 aspects (the list of criteria can be obtained from the authors). The criteria of the category "Structure" (11) serve to investigate the logical concept of the banks' Web sites. However, most of our criteria (53) deal with "Content" concerning the three selected customer processes:

- The customer process "Housing" represents the desire for acquiring a home ownership which can mean building, buying, or renting a house respectively purchasing or renting an apartment. Many aspects have to be taken into consideration to support this process appropriately.
- Since the pension level will further decline in the future and life expectation is rising, the customer process "Caring for one's old age" is of enormous importance for private customers.
- The customer process "Asset building/financial planning" comprises all activities to invest money in a structured manner concerning one's individual financial experience, willingness to take risk, and the respective financial and family situation. The term *asset* comprises monetary values like checking account balances, savings, fixed-interest securities, and claims on endowment insurance contracts as well as stocks, real estate, property funds, and other values.

We refrained from constructing different catalogues for each national banking group because most of the criteria correspond to the customer needs of private clients in general. Hence, in some cases we modified the criteria into country specific ones to ensure a fair comparison of the Web sites. In some cases criteria have been excluded from our investigation.

4.4 Data collection

The Web sites of all banks in our sample have been evaluated regarding every single criterion. We especially investigated the appropriate order of supportive activities to the respective phase of the CBC. For example, aspects of the stimulation phase should be reflected on the Web site at the beginning of the customer process.

The 64 criteria have not been weighted because they should reflect the support of customer processes entirely. For this reason, all criteria are assumed to be of equal relevance. Additionally, potential customers have different needs and desires and therefore the criteria can be of different importance for individual clients.

We evaluated the existence of each criterion and recorded the results with "0" for "criterion available" or "1" for "criterion not available". This nominal scaling is suitable for investigations with a high number of objects or criteria (Chung, W. and Paynter, J., 2002). The study comprised a total of 6,400 observations.

4.5 Results

The Web site ranking shown in the following section has been calculated by the achieved performance in per cent. The assessment of the data has been conducted on the basis of four performance classes (Table 2).

Table 2: Performance classes for Web site ranking

≥ 80 per cent	A fulfillment of <i>at least 80 per cent</i> of the evaluated criteria reflects an excellent		
	orientation on customer processes		
50 to 79,9	An accomplishment from 50 to 79,9 per		
per cent	cent indicates a good orientation on		
	customer processes. However, further		
	potential exists for improvement.		
30 to 49.9	Criteria are fulfilled at a degree of 30 to		
per cent	49,9 per cent which reflects at most a		
	satisfying orientation on customer		
	processes. Partly, clear deficits exist.		
< 30 per cent	A performance of less than 30 per cent is		
	characteristic for an insufficient orienta-		
	tion on customer processes.		

Figure 1 delivers a first overview on the support of customer processes based on the analyzed banking Web sites. It can be noted that none of the 100 banks features an explicit orientation on customer processes (i.e., performance of at least 80 per cent). The graphic shows that the majority of banks offer just a rudimentary orientation on customer processes with a result of only 30 to 49.9 per cent which reflects the existence of clear deficits.

The banks which are ranked best show results in a range between 50 to 79.9 per cent. It is astonishing that the banks of Austria and Switzerland are not represented within this performance class (with the exception of Erste Bank, Austria). Apart from the UK banks, banks of all nationalities are represented within the lowest performance class (less than 30 per cent).

4.6 Web site ranking

Table 3 presents the ranking of the Top 15 banks. Banks with the same overall result are placed at the same position within the ranking.

Nassauische Sparkasse (Naspa) which is one of the major savings banks in Germany attained the best overall result of 73.4 per cent. It heads the ranking by a distance of almost 10 per cent. Naspa's Web site shows a close orientation on customer processes including a customer-driven offering structure. Potential customers of Naspa find a clearly arranged access to the three customer processes via

the sections "Home and living", "Caring for the future", and "Financial investments" as well as "Securities and stock exchange". In the category "Content" Naspa achieved 69.8 per cent of all criteria. Particularly during the stimulation phase, customers obtain all necessary information for their fields of interest. Within the category "Structure", Naspa's Web site serves all criteria except the *callback button*.

It is noticeable that German banks occupy the first positions – acknowledging that this group has been the biggest group in our sample. Interestingly, 10 German savings banks can be found among the 25 best positioned financial institutions. Only two of Germany's large banks – HypoVereinsbank (HVB) and Deutsche Bank – are among the Top Ten.

Table 3: Web site ranking (Top 15)

Position	Bank	Natio- nality	Total degree of perfor- mance in %
1	Nassauische Sparkasse	G	73,4
2	HypoVereinsbank	G	64,1
	Sparkasse Nürnberg	G	64,1
4	Stadtsparkasse München	G	62,5
5	Deutsche Postbank	G	60,9
	Hamburger Sparkasse	G	60,9
	Stadtsparkasse Hannover	G	60,9
8	Barclays	UK	60,0
9	Deutsche Bank	G	59,4
10	Erste Bank	AU	59,0
11	Stadt+Kreissparkasse Pforzheim	G	57,8
12	JP Morgan Chase	US	55,2
13	Stadtsparkasse Köln	G	54,7
	NetBank	G	54,7
15	Citicorp	US	53,4
	Wachovia	US	53,4

AU = Austria, G = Germany, UK = United Kingdom, US = United States

5 DISCUSSION

The results show that online banks do not always perform better than banks whose Web sites just represent an additional distribution channel in a multi-channel approach. Only three of the eight evaluated online banks are positioned among the top 25 banks, and NetBank, the superior bank of this group, holds just position 13. This result underlines that traditional banks are absolutely able to compete with their online offerings with pure Internet banks.

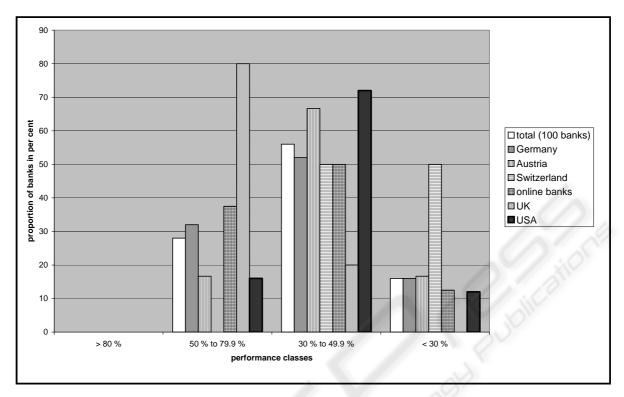


Figure 1: Overall results on the basis of four performance classes

The Web sites of Anglo-Saxon banks are, concerning their orientation towards customer processes, very similar to the Web sites of the included German banks. The highest ranked UK bank is Barclays on position 8 whereas the best ranked US bank, JP Morgan Chase, finds itself on position 12. Compared to other national banking groups Austrian and Swiss banks came off disappointing. Besides Erste Bank, which ranks tenth, there is no Austrian or Swiss bank with a higher performance than 46 per cent (Credit Suisse).

Based on our research it must be stated that most of the analyzed Web sites fail to assist customers within their processes. It is striking that the majority of Web sites still show a clear (traditional) product-driven structure. Even banks with a more customerneed oriented approach provide products on the next level of their Web site. Also, only a few banks support customers according to the time line of the respective process. In rare cases customers obtain an overview on the chronology of all necessary steps within their process.

These observations are confirmed by the fact that many of the evaluated banks distinct the customer process "Asset building/financial planning" into two separate topics: Saving and investing and Securities and stock exchange. Often both topics are treated isolated and banks do not point out that both parts

should be seen as complementary investment opportunities. This observation reflects the traditional "stovepipe thinking" in the banking industry. We observed this fact primarily at the investigated Anglo-Saxon banks. Similarly, some banks differentiate between offerings on *Mortgage financing* and *Real estate services* in the customer process "Housing", although both topics perfectly complement each other and thus, support the whole process. As a result, this stovepipe thinking approach in presenting financial services leads to the disruption of customer processes.

Apparently, banks often design their Web sites based on the assumption that customers are already equipped with a profound knowledge on various topics. In this case, banks do not provide any necessary information during the stimulation phase, but they directly confront their customers with a portfolio of products. Only seldom the customers get accompanied by their bank during the entire process. Also, the fulfillment of customer needs within the respective life cycle is hardly reflected in the Web.

The results of our study show that only a third of the evaluated banks enrich their offers by services of co-operation partners. Mostly, the much praised open product architecture can be observed in the field of investment funds only (offering of thirdparty funds). Some of the analyzed banks co-operate with insurance companies or real estate agencies (often subsidiaries of the same bank). One could criticize again the basically product-oriented focus of these co-operations, the unsatisfying process focus, and missing real partnerships with co-operating companies apart from the own group.

6 CONCLUSION

The reflection of customer processes in the Web sites of banks has been investigated at the example of three processes which have been selected on the basis of a comprehensive questionnaire survey. The results confirm a general trend to deliver customer process support by banks. Since the three exemplary processes correspond very much to the core competences of banks (these customer processes belong to Class A) they should be supported in an optimal way. Customer processes exceeding the traditional banking business have not been taken into consideration in this study. It can be assumed that customer processes of Classes B and C almost do not achieve any support by banks. Accordingly, it is necessary in the first step that banks consequently concentrate on those customer processes which correspond with their core competences.

In the future the alignment of financial products and services to customer processes will become one of the key drivers of success in the banking business. Thus, the customers' needs should become the benchmark of a bank's offering to differentiate itself from its competitors. This will also be a major challenge for those responsible for the bank's customer data bases and the front end application systems including the Web. The medium Internet as one of several customer touch points offers great potential to implement the idea of supporting customers within their processes and to shape much closer customer relationships.

The results of our study attest that the majority of the evaluated banks pursue a product-oriented offering strategy instead of a customer-driven offering strategy. Furthermore, most of them fail to assist customers adequately. In fact, many banks offer extensive supporting tools, services, and information but almost none of them is able to support all phases of the CBC. The results demonstrate the need for a stronger focus on the customer-driven approach in the banking industry and the existence of huge potential in Web site design. The bank of the future will have to ensure that IT managers fully understand the logic of customer processes. It will be their task to implement this business-driven approach into the front end applications of banks.

REFERENCES

- Buehler, W., 2004. Retailgeschäft: Ertragszuwachs durch unkonventionelles Mehrwert-Banking. In: *Die Bank*, No. 2, pp. 100-103.
- Chung, W. and Paynter, J., 2002. An Evaluation of Internet Banking in New Zealand. In: Proceedings of the 35th Hawaii International Conference on System Sciences (HICSS-35), IEEE: Los Alamitos/Cal.
- Fey, B. et al., 2000. Ein Geschäftsmodell für die Finanzindustrie im Informationszeitalter. In: Oesterle, H. and Winter, R. (eds.): *Business Engineering*, Springer: Berlin, pp. 257-270.
- Hagel, J. III and Singer, M., 2000. Net Value. Der Weg des digitalen Kunden, Gabler: Wiesbaden
- Hammer, M., 2002. Business Back to Basics, Econ: Munich.
- Lange, A. and Waeschle, A., 1998. Strategisches Marketing des Internet Banking. In: Lange, T. (ed.): *Internet-Banking. Der Bankvertrieb im Umbruch*, Gabler: Wiesbaden, pp. 81-100.
- Moormann, J. and Wilkerling, C., 2003. Value-Added-Services durch Einsatz intelligenter Dokumente. In: *BIT. Banking and Information Technology* 4, No. 3, pp. 67-78.
- Muther, A., 2002. Customer Relationship Management. Electronic Customer Care in the New Economy, Springer: Berlin.
- Niemeyer, V., 2003. Virtuelle Beratung. Kundenbegleitung im elektronischen Vertrieb der Finanzdienstleister, Physica: Heidelberg.
- Niemeyer, V. and Thymian, M., 2002. e-Improvement: Ein systemtheoretischer Vertriebsansatz. In: *Geldinstitute* 33, No. 9, pp. 14-19.
- Oesterle, H., 2000. Geschäftsmodell des Informationszeitalters. In: Oesterle, H. and Winter, R. (eds.): *Business Engineering*, Springer: Berlin, pp. 21-42.
- Oesterle, H., Fleisch, E., and Alt, R., 2001, (eds.).

 Business Networking. Shaping Collaboration Between
 Enterprises, Springer: Berlin.
- Piller, F.T. and Moeslein, K., 2002. From economies of scale towards economies of customer integration. In: Working paper No. 31, Department of General and Industrial Management, Technical University Munich.
- Reichmayr, C., 2003. *Collaboration und WebServices*, Springer: Berlin.
- Schmid, R., Bach, V., and Oesterle, H., 2000. Mit Customer Relationship Management zum Prozessportal. In: Bach, V. and Oesterle, H. (eds.): *Customer-Relationship-Management in der Praxis*, Springer: Berlin, pp. 3-55.
- Schwanitz, J., Rathsmann, T., and Levermann, V., 2002. Vom Web-Controlling zur Multi-Kanal-Vertriebssteuerung. In: *Betriebswirtschaftliche Blätter* 51, No. 7, pp. 331-334.
- Winter, R., 2002. Retail Banking im Informationszeitalter. Trends, Geschäftsarchitektur und erste Beispiele. In: Leist, S. and Winter, R. (eds.): *Retail Banking im Informationszeitalter*, Springer: Berlin, pp. 29-50.