CREATING VALUE-ADDED SERVICES FOR BANK CUSTOMERS USING INTELLIGENT DOCUMENTS

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Abstract

Most processes in banks are usually carried out product-driven and less customer-centered. With neglecting a consistent alignment of the bank's business processes with the processes of their customers, most banks forgo the opportunity to gain competitive advantages. By providing Value-Added Services (VAS) to customers banks can differentiate themselves from their competitors. This paper presents and examines a new approach for developing value-adding services. These services are based on customer processes and the usage of intelligent documents to provide added value to the customers. The concept of intelligent documents is analyzed in detail and presented in conjunction with the customer process 'Death and inheritance'. We find that intelligent documents highly improve the alignment of the banks' business processes with the processes of their customers and reflect the state of the art in banking. Despite some restrictions the advantages for both the banks and their customers are vast and manifold. The expected reduction of the customer's cost and effort in terms of personal administration is significant. Due to increased customer satisfaction the probability of winning the inheritors and bereaved as new customers and therefore the retention of the heritage funds rises. By offering new services with partners the bank is able to generate additional income via commissions. Moreover, printing, paper, and postage costs are brought down considerably, and avoided media disruptions and transmission errors lower the costs as well.

Key words: Banking, Customer process, Business process, Value-added service (VAS), Intelligent document, XML.
JEL classification: G21, L86, M31

1. Introduction

As the traditionally strong relationship between banks and their customers weakens continuously, the opportunity for banks of generating income deteriorates. By focusing consequently on customer needs, banks can overcome this problem. To achieve this goal banks have to understand the needs of customers in terms of customer processes.

A customer contact can be considered as the starting point of specific sales activities of a bank. However, at the moment of contact the customer finds himself already amidst his own individual process. A customer process can be defined as the entire procedure customers pass through to meet a desire or to solve a problem (Niemeyer, 2003). 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 variety of information, services, and financial products which usually are acquired from different suppliers. Typically, customers have to get in touch with different suppliers instead of dealing with just one partner leading the customer through the whole process (Schmid, Bach, and Oesterle, 2000; Buehler, 2004). Thus, acquiring a financial product represents only a certain task within a comprehensive customer process. Retirement, home improvement, and traveling are examples for processes of private customers.

Up to now most banks are focused on purely delivering financial products (inside-out perspective), but a rethinking towards process orientation is urgently necessary (outside-in perspective). The process view should acknowledge the original customer's process to seek those products and services which fit the customer need best in terms of his/her individual process. Interestingly, the traditional literature on business processes (e.g. Davenport, 1993; Hammer and Champy, 1993; Johansson et al., 1993) is neglecting the explicit matching of customer processes with business processes but recent literature calls for a close integration of customer demands (Vandermerwe, 2000; Hammer, 2001; Yeung and Armstrong, 2003; Haller, Maas, and Ackermann, 2004).

This paper presents and analyzes a new approach for the creation of VAS by using 'intelligent documents'. It proceeds as follows. First, the theoretical background of customer processes and the customer process 'Death and inheritance' are introduced. Secondly, the matching of customer processes with business processes is discussed. Thirdly, the concept of intelligent documents is examined. Fourthly, our new approach is demonstrated by applying to the customer process 'Death and inheritance'. Finally, advantages for both banks and their customers are analyzed and restrictions of our approach are discussed.

2. Analysis of Customer Processes

Customer Processes in Banks

In order to analyze the opportunities of a bank to support customer processes, it is crucial to identify and to understand relevant customer processes. In addition, the existing interfaces (e.g., branch, Web, agent) between customer and bank have to be investigated (Heinrich, 2002; Kahmer and Moormann, 2005). The main questions include how to design customer/bank-interfaces and to determine when and where to support the customer within his process. Only then a comprehensive and appropriate support of customer processes (possibly by integrating co-operating partners) can be developed.

The literature usually examines the purchase of real estate as an example of a customer process (Oesterle, 1999; Winter, 2002). In this case the customer needs concerning different services and providers are well-known (e.g., services from brokers, insurance companies, and public institutions). Traditionally, a bank occupies only a few interfaces to the customer within a customer process. In case of the purchase of real estate the only interface is financing.

High importance within a comprehensive support of customer processes is given to the construction of process portals (Schmid and Bach, 2000). That a process portal is not necessarily restricted to the Internet is worth mentioning. Such portals offer a wide-ranging solution for a specific issue and services exceeding traditional monetary transactions and financing to their customers. This does not imply that offered products and services have to be developed, delivered, or transacted by the bank itself. In fact, it can be arranged by partnerships. Each bank has to choose in which customer process and to which extent it intends to act as an integrator (Schmid, Bach, and Oesterle, 2000).

Customer processes which comprise the closing of a service contract or the purchase of a product are very similar regarding their basic structure (Ives and Learmonth, 1984; Vandermerwe, 1993; Behara, Fontenot, and Gresham, 2002). Each process initiation is followed by the phase of *Information Gathering* as well as the *Evaluation* of the received information. At the next step the customer finds himself in the *Purchase Phase* which comprises the buying decision as well as the purchase itself. After having used the product it will be sold again, the product will be disposed of, or the contract ends. This phase usually is called *After-Sales Phase*.

Based on this 'Customer Buying Cycle' (CBC) most customer processes can be structured by the customer needs, the tasks of the customer, and the process steps during each phase (Reichmayr, 2003). Furthermore, the points of contact between customer and bank can be derived. The CBC is an inherent element of Customer Relationship Management (Schulze, 2002) and can serve as a structuring tool for analyzing the supplier-customer-relationship (Muther, 2000). Piller and Moeslein describe this approach as "integrating the customer into value creation" (Piller and Moeslein, 2002). This idea is illustrated by means of an example in the following section.

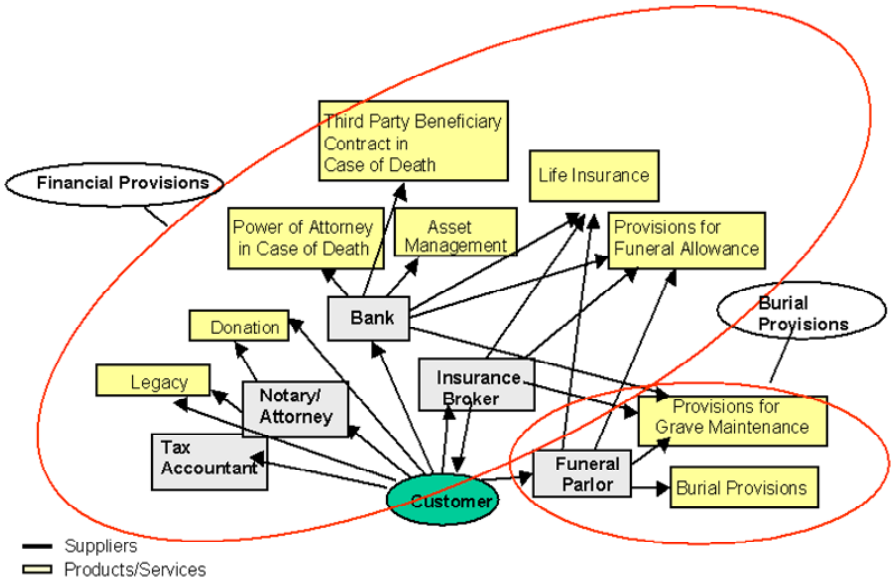

Fig. 1. Activities and service providers involved in the process chain 'Death and inheritance before the occurring event'

Customer Process 'Death and Inheritance'

In most Western countries the average volume of heritage has risen permanently. The connection between the inheritor and the relocation of money plays an important part in the retail and private banking business. Having this in mind the process 'Death and inheritance' can be considered as highly relevant for banks. Due to the aging population in almost all industrialized countries the necessity and opportunity of advising the testator as well as the inheritor will increase in the near future. Thus, banks have to figure out whether they truly understand the customer process – beyond the basic needs of money relocation – and if they are able to support this process adequately.

During this process the customer uses services of various partners. Hence, he or she has to deal with an enormous organizational and controlling complexity. The bank is just one of a variety of suppliers in the whole process chain. Until today, banks usually restrict themselves to fulfilling legal requirements (e.g., report of existing accounts, balance statements and bank safes to financial authorities etc.) regarding this process.

The process 'Death and inheritance' can be divided into two separate process chains: The first process chain happens before the occurrence of death. This process chain is usually created by the testator himself. The second process chain runs after death has occurred. This chain has to be handled by the heirs and the bereaved respectively. The following considerations relate to the first process chain. Figure 1 depicts the main service providers including the offered products and services the customer has to deal with.

The process chain 'Death and inheritance before the occurrence of death' is quite product oriented rather than process oriented. As the customer has to choose from a variety of services and products, the Customer Buying Cycle seems to be suitable to analyze the process chain. Generally, the process consists of two distinct areas of preparations: financial provision and burial provision.

During the Information Phase the customer obtains an overview on different kinds of regulations regarding inheritance and funeral. Besides, he gathers hints and information from various service providers or from relevant literature. This information helps him to organize an optimal flow of his process. In the Evaluation Phase the customer validates different offers and he conducts the neces-

sary steps during the Purchase Phase. The After-Sales Phase includes the confirmation and the collection of all contracts closed. In this phase the customer has an information need concerning the current status and changes of his contracts as well as concerning legal requirements.

3. Matching Customer Processes with Business Processes of Banks

For banks it is most important to align their business processes to the processes of their customers (Niemeyer, 2003). It has to be thoroughly analyzed whether both process types fit together logically and which tasks within a customer process should be satisfied by the bank. If certain tasks are not covered by the bank the customer is forced to integrate a further service provider into his process. In this section, the current interfaces of banks to the customer process 'Death and inheritance before the occurring event' will be discussed.

During the Information Phase the customer is provided with general information about insurance, account management, legacy regulations (e.g., information concerning donations and testament) and administration of estates. Although some of this information does not belong to the banking domain, it can still be delivered by the bank. Thus, the Information Phase is largely supported by the bank apart from a few exceptions like burial provision.

In contrast, the Evaluation Phase and the Purchase Phase exhibit only little support by banks (usually restricted to the field of insurance and account management). For example, carrying out a donation or a legacy is not offered by banks. Therefore, the customer has to contact further providers in order to acquire these services. Moreover, services like preparations for burial, grave maintenance, and insurance to cover the cost of funeral are not yet offered by banks.

The After-Sales Phase always holds interfaces between a customer and the bank, if the customer uses certain financial products. However, a comprehensive support of this phase has not yet been recognized. From the bank's point of view, the process chain still has a strongly product-related structure and lacks the process orientation. If the bank does not offer certain products, the customer is forced to integrate several providers into his own process in order to ensure the whole process chain.

As a result, banks already possess some interfaces in the field of financial provision. However, these points of contact should be extended; e.g., burial provision is up to now solely supported by funeral service providers.

4. Intelligent Documents

This section focuses on the usage of 'intelligent documents' and the related value-added services. In this context the technology of Web-based Mailboxes (also called Web Archive, Online Archive) will be used and their potential to support customer processes will be investigated.

Concept of a Web Mailbox

In most cases bank customers receive their documents and letters paper-based by mail. They have to handle the administration of these documents manually by themselves. For instance, they have to sort and to file them, pay bills by money transfer or check and they have to monitor the transfer by means of account statements. If documents have to be used later again (e.g. for tax declaration), they have to be searched again and assorted troublesome.

Many banks offer a specific Web-based Mailbox which replaces the physical delivery. Instead of receiving documents in hard copies, they are provided online into the customer's personal mailbox. Consequently, the receipt of bank documents can be carried out independently from time and place. Unfortunately, these documents are delivered into the Web-based Mailbox as images – usually as pdf-files. Since the documents offer no opportunity to analyze them electronically we call them 'dumb documents'. Furthermore, the customer gets documents into his mailbox from one bank only.

Two improvements are to be made:

(1) The customer should be able to enroll in an Online Archive which is hosted by an independent provider. Then it would be possible to receive and store electronic documents from a variety of providers (e.g., banks, insurance companies, credit cards operators, telecommunication providers, revenue offices) into a single mailbox. For this purpose the customer has to send a declaration of consent that his personal documents may be delivered electronically to his Web Archive provider. To gain access to his mails, the customer has to log onto his provider's Web site using his individual user name and password. New documents are available in the 'inbox', and can be displayed and managed by the customer via a menu navigation. Furthermore, it is possible to file personal documents in a separate folder ('data safe') after scanning them. The user interface of the Online Archive is therefore a virtual desk, a personal assistant, and at the same time a filing cabinet.

(2) The electronically delivered documents should be stored in the XML format. XML (eXtensible Markup Language) is an abstract computer language which can be used as a tool to define languages and to tag document structures. Thus, the XML format enables the utilization of a document along with its reproduction. Applying the new ebXML standard (Electronic Business using eXtensible Markup Language) as a standard method to exchange business messages is quite conceivable in the case of integrating an independent Web Mailbox provider. The application of these 'intelligent documents', which have the ability – in contrast to documents in hard copy – to connect the documents' contents with various interactive services, is examined further (Weinberger, 1991; Davydov, 2005; Hamey, 2005). These services are either directly integrated into the document or linked through the user interface of the respective Online Archive. Intelligent documents are transferred by using a 128-Bit-SSL Certificate Encryption. To prevent unauthorized persons from changing or receiving data and to ensure the authenticity of the document, a timestamp and a digital signature is attached to each document before being sent to the Web Archive.

Value-Added Services Based on Intelligent Documents

As soon as a digital document is not restricted to a visual reproduction the document's data can be utilized electronically. As a consequence, it is much easier to conduct analysis and comparisons which would have to be done manually and time consuming otherwise. Intelligent documents classify themselves into pre-defined folders and additional functions can easily be attached like reminding, searching, consolidating, and evaluating. Bills can be paid at the push of a button and personalized links enable a highly individual form of addressing the customer. Additional functions of these value-added services are:

1. Supplementary services, e.g. export of account statements to Microsoft Excel for subsequent editing.
2. Hints and messages directly attached to the intelligent documents.
3. Fast and convenient access to forms (e.g., remittance slip) and their electronic transfer can be conducted by a form center. Forms can be filled in automatically.
4. Intelligent documents can be forwarded (e.g. to a tax advisor) or used in shared sessions (e.g., in case of queries to the customer's bank advisor).
5. Due to a built-in function to gain access to a Customer Care Center via the document the customer is able to contact his bank easily and at any time.

Up to now the usage of documents has been restricted to one direction only. With the emergence of intelligent documents customers get the option to set up a communication channel to the addresser. Thus, the document becomes a 'process portal' and is no longer limited to the pure presentation of information. Particularly, processes connected to several documents offer the opportunity to provide customers with further information and support. The customer is now able to analyze and evaluate the information in the Web Archive independently and to contact providers as necessary. The purpose of the bank is neither to create a 'transparent customer' nor to track every step of the customer but to offer him a platform which guides him through his individual process. The application of intelligent documents therefore provides support within the customer process and generates added value for the customer.

5. Intelligent Documents at the Example of the Customer Process 'Death and Inheritance'

This section examines the potential of intelligent documents in terms of creating value-added services by a applying customer process analysis. The process chain 'Death and inheritance before the occurrence of death' will serve as an example. Since banks possess detailed information concerning this process they have the potential to support intensely their customers in this regard.

The main purpose is to present the bank as a service integrator concerning death and inheritance provision. To cover the customer process entirely, the bank has to set up a number of co-operations. Especially insurance companies, tax advisors, notaries, and funeral parlors are potential co-operation partners for this process. Figure 2 shows the involved partners in the process communicating via intelligent documents stored in the Web Mailbox.

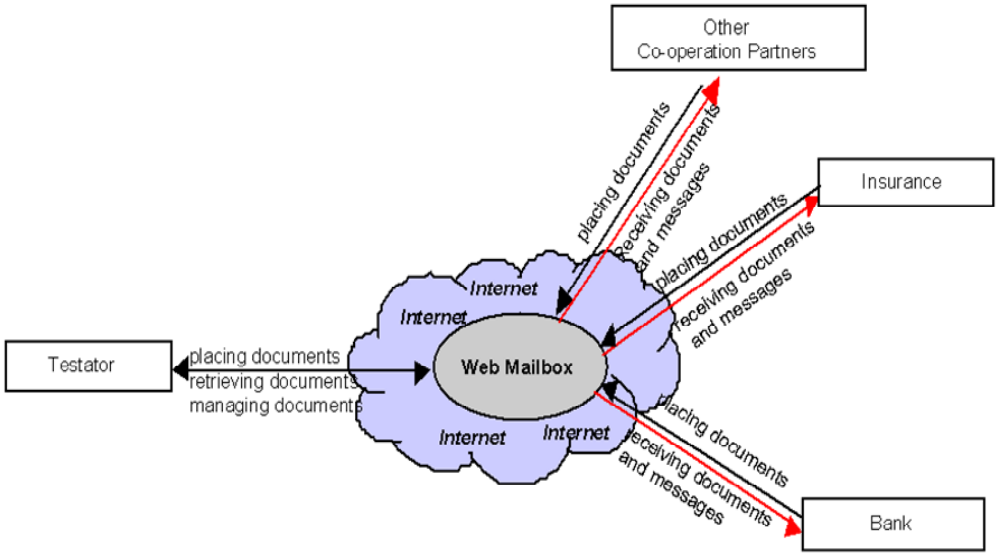

Fig. 2. Partners involved in the process chain 'Death and inheritance before the occurrence of death

The process can be modeled according to the concept of the Customer Buying Cycle. The process starts with the testator's stated interest in preparations for the case of his death. This interest can be expressed by ordering relevant literature via the bank's Web site, a phone call to the bank's call center or a talk with branch employees.

In order to deliver the required information on inheritance regulations, premature relocation of wealth, types and cost of funeral, as well as products and services regarding provision of death and inheritance the bank delivers a comprehensive letter into the customer's Web Mailbox. This letter is connected to several value-adding services. An intelligent information letter is able to comfortably support the entire Information Phase without the customer having to extract every detail out of a long 'dumb' document by himself. Moreover, he can directly be guided to the required information and experts via Internet links. To demonstrate this approach, we present a prototype of an intelligent document regarding the process of death and inheritance in Figure 3.

Dear Mr / Ms xxxxxx,

we refer to your letter from 7/25/2005 when you asked for information regarding the issue ‘inheritance‘.

If you wish detailed information with regard to specific issues please click on the highlighted words or buttons. You will instantly be guided to the side with the relevant information.

- What are the regulations concerning legal succession? 1
- What options does the testament offer and what do I have to know about it? 2
- What is a donation and what do I need to know in this regard?
- How can I make sure that my relatives have access to my bank accounts in the case of my death?
- What are the regulations concerning legal death duties and what kinds of preparations are useful? 3
- Which expenses are to be expected in the case of death?
- What do I have to know about legal funeral benefits? 4
- Which options do I have to cover the expenses in the case of death in advance?
- Which burial provision can be made during my lifetime? 5

Furthermore, we would like to assist you regarding your individually required provision. All you need to do is to answer a few questions and we will provide you with a personal service package according to your specifications. To make use of this free service click here:

Do you already know which preparations you would like to arrange? In this case, closing of a contract is just a ‘click’ away. The contract for each of the following products and services is available in your Online Archive:

- Third party beneficiary contract 6
- Power of attorney for banking matters in the case of death
- Power of attorney for banking matters beyond death
- Life insurance
- Contract for securities deposit
- Death insurance
- Funeral provision insurance
- Grave maintenance insurance

Do you still have questions which could not be answered by this letter? Please do not hesitate to contact our customer service! If you want to communicate online with one of our customer advisors now, please click on the following button.

With kind regards,
Your yyyyyy Bank

Fig. 3. Intelligent information letter concerning the customer process ‘Death & inheritance’

Once the customer opens the document he gains access to several services according to his requirements. The first part of the document supports the customer during his Information Phase. Links to special Web sites of the bank or its co-operating partners are attached to the letter. For example, as soon as the customer clicks on the link regarding ‘Legal succession’ 1, he will be forwarded directly to the relevant Web pages of the bank. These pages contain all information worth knowing with regard to the desired topic.

Clicking on 2 the testator will not only be informed about the options regarding the testament but he will also receive specimen how to write a testament best and a list of co-operating notaries. If there is no nearby notary available he will be offered the opportunity to search for other notaries via a search engine.

Banks are only allowed to give general information regarding tax issues. By law, it is not permitted to offer fiscal advices to their customers. Therefore, a detailed consultation by a co-operating tax advisor will be arranged at 3. Again, in the case of no existing nearby co-operating partners, a search engine can be used to find other tax advisors.

Using 4 the testator will be linked to the Web site of a co-operating health insurance company. Here, the customer will receive the necessary information concerning legal death benefit. As this topic is not a bank's core competence co-operations have to be arranged.

In addition, burial provision does not belong to a bank's core competence. Therefore, this topic has to be covered by a co-operating service provider. The customer will be guided via 5 to a funeral parlor's Web site where he has access to general information concerning provision and expenses in the case of death. A nearby funeral parlor can be searched by the customer, too.

The second part of the letter supports the customer's Purchase Phase. Using the links at 6 the customer is able to directly close the required contracts.

Table 1

Overview of documents involved and value-added services

Customer Process 'Death & inheritance before the occurring event'		
Phase	Involved documents	Involved VAS
Information Phase	Information letter	Links to Web sites
		Personalized links, search engine
		Chat or CTI channel
		Joint browsing (document sharing)
Evaluation Phase	Information letter	Link to advisory tools
		Creation of a personal offer
		Chat or CTI channel
		Joint browsing (document sharing)
Purchase Phase	Information letter	Forms center
		Chat or CTI channel
		Joint browsing (document sharing)
After-Sales Phase	Closed contracts and insurance policies	Specific services like account Overview, financial statements, Insurance statements
		Automatic placement in a folder 'Provision for the case of death'
		Chat or CTI channel
		Joint browsing (document sharing)
	Information letter in the case of death	Chat or CTI channel
		Joint browsing (document sharing)
		Automatic placement in a folder 'Provision for the case of death'
	Bills on installments and insurance premiums	Comparison of documents
		Forms center
	Account statements and securities statements	Search and filter function
		Aggregation
		Personalized messages

Table 1 provides an overview on the documents involved and value-added services during each phase of the process chain 'Death & inheritance before the occurring event'.

In the case of death the involved persons change. The bereaved respectively the heirs replace the testator. During lifetime the testator has assigned an access authority form as well as a power of attorney to the bereaved/heirs. Both documents have been placed in the Web Mailbox as shared documents. Thus, the bereaved respectively the inheritors become the new 'customers' of the bank.

6. Discussion

The largest benefit of this approach for the customers can be seen in the field of personal administration since costs and efforts will be reduced significantly. All documents are sorted and filed in appropriate folders. As a consequence, the bereaved and heirs do not have to spend a lot of time to find the important documents of the testator. The integration of a forms center including an automatic transfer of data reduces effort and time. Thus, the bereaved and inheritors neither have to search for necessary data from insurance and bank documents nor do they have to request information from the bank or the insurance company. The customers will be supported by a focused evaluation of documents. Aggregations, financial and insurance statements as well as searches for documents can easily be handled by just clicking on the respective button. In summary, the added value for customers includes a fast, comfortable, and individual service.

In addition, the following benefits from using intelligent documents arise for the bank:

1. By supporting the process chain based on intelligent documents, the bank is able to extend and intensify their interfaces to the customer. By offering additional services and products out of one hand the bank can strengthen its relationship to the customer. Furthermore, individual addressing as well as guiding the customer to valuable contents will increase and maintain customer satisfaction and retention.
2. Not only has the original customer (the testator) got the bank's support but also the bereaved and heirs, who replace the testator in the second process chain ('Death and inheritance after occurrence'). The bereaved and heirs can also use the services and can eventually be won as new customers of the bank. If the customer processes of the inheritors and bereaved are supported competently, the probability rises that the heritage will not be withdrawn from the bank.
3. The co-operation with other service providers via intelligent documents can generate additional profits for the bank in terms of commissions.
4. The feedback channel enables the bank to directly integrate the customer into their processes. Data is typed in by the customer and automatically processed by the bank's IT system, which reduces activity-related costs. The customer perceives this service as innovative. Although the customer can still approach the bank, the resources for sending forms and typing in data are reduced. Since forms already contain most of the needed data, input errors of the customers can be avoided.
5. Due to the absent of printing, paper and postage costs the bank is able to reduce costs significantly. If the Web Archive is offered by an external provider, the bank saves the additional investment. The costs comprise only the electronic delivery costs per document which are obviously lower than paper based letters. In conclusion, a substantial cost reduction can be expected.

There are some critical aspects, though. The presented approach assumes a very active and involved customer, which is not the usual case. Intelligent documents represent just an offer with the aim to support customer processes. If the offer is accepted partially by the customer, the bank's opportunity to provide this service is limited. Other restrictions refer to the target group of the VAS which consists primarily of customers with a high affinity to technology. Since the usage of digital documents requires access to the Internet and the customer's confidence in this medium, those are additional pre-conditions. Hence, it is questionable how many customers can be reached

by offering this service. Another aspect is the legal situation for using electronic documents in the private client sector. If there is no certainty concerning the laws (e.g., digital signature) bank customers will remain skeptical. However, these constraints do not directly decrease the added value for the users. As soon as the legal and technical concerns can be solved the customers achieve the full added value.

7. Conclusion

Banks are still reluctant to identify and support customer processes. Many processes are still carried out product-driven and less customer-centered. Hence, banks should consider the opportunity to differentiate themselves from other competitors by supporting those processes important to their customers. Our approach of using intelligent documents certainly exceeds the classical view of banking business.

Intelligent documents are appropriate means to support customer processes. The Web Mailbox is an element of a comprehensive concept for serving customer needs. Intelligent documents will not replace the individual consultation within this process but will support and strengthen the bank's relationship to its customers significantly.

The introduction of clear-cut legal conditions will foster the transfer of digital VAS concepts to the B2C-field. Especially the electronic signature law offers exciting opportunities for the usage of digital documents. Thus, processes which need personal signatures can be proceeded automatically and without media disruptions.

The usage of electronic documents reflects the state of the art in banking. The introduction of intelligent documents represents a consequent and further step which supports the needs of banks and their customers. Consequently, intelligent documents highly improve the alignment of the banks' business processes to the processes of their customers.

References

1. Behara, R.S., Fontenot, G.F., and Gresham, A.B (2002). Customer process approach to building loyalty. In: *Total Quality Management* 13, No. 5, pp. 603-611.
2. Buehler, W. (2004). Retailgeschaeft: Ertragszuwachs durch unkonventionelles Mehrwert-Banking. In: *Die Bank*, No. 2, pp. 100-103.
3. Davenport, T.H. (1993). *Process Innovation: Reengineering Work through Information Technology*. Harvard Business School Press, Boston/Mass.
4. Davydov, M.M. (2005). Beyond EAI. In: *Wall Street & Technology* 23, No. 3, pp. 48-49.
5. Haller, M., Maas, P., and Ackermann, W. (2004). Customer Value. In: Versicherungswirtschaft und Financial Services. In: Belz, C. and Bieger, T. (eds.): *Customer Value*. I-VW publ. St. Gallen, pp. 624-655.
6. Hamey, J. (2005). The Automated Document Part 2 – Advanced Automated Documents. In: *KM World* 14, No. 1, pp. 22-24.
7. Hammer, M. and Champy, J. (1993). *Re-engineering the Corporation. A Manifesto for Business Revolution*. Harper Collins. New York/NY.
8. Hammer, M. (2001). *The Agenda*. Crown Business. New York/NY.
9. Heinrich, B. (2002). Die konzeptionelle Gestaltung des Multichannel-Vertriebs anhand von Kundenbeduerfnissen. In: Leist, S. and Winter, R. (eds.): *Retailbanking im Informationszeitalter*. Springer. Berlin, pp. 73-91.
10. Ives, B. and Learmonth, G.P. (1984). The Information System as a Competitive Weapon. In: *Cumminications of the ACM* 27, No. 12, pp. 1193-1201.
11. Johansson, H.J. et al. (1993). Business Process Reengineering. Wiley. Chichester.
12. Kahmer, N. and Moormann, J. (2005). Alignment of Web Sites to Customer Processes: A Study in the Banking Industry, in: *Proceedings of the 7th International Conference on Enterprise Information Systems (ICEIS 2005)*, Miami/FL, Vol. 4, pp. 32-39.

13. Muther, A. (2000). *Electronic Customer Care*. Springer. Berlin.
14. Niemeyer, V. (2003). *Virtuelle Beratung. Kundenbegleitung im elektronischen Vertrieb der Finanzdienstleister*. Physica. Heidelberg.
15. 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.
16. Reichmayr, C. (2003). *Collaboration and Web Services*, Springer, Berlin
17. Schmid, R., Bach, V. and Oesterle, H. (2000). Mit Customer Relationship Management zum Prozessportal. In: Bach, V., Oesterle, H. (eds.), *Customer Relationship Management in der Praxis*. Springer. Berlin.
18. Schmid, R. and Bach, V. (2000). Prozessportale im Banking – Kundenzentrierung durch CRM. In: *Information Management & Consulting* 15, No. 1, pp. 49-55.
19. Schulze, J. (2002). *CRM erfolgreich einführen.* Springer. Berlin.
20. Oesterle, H. (1999). Prozessportale bei Banken: Vom Finanzdienstleister zum 'Rundumservice'. In: *Bank und Markt* 28, No. 12, pp. 33-36.
21. Vandermerwe, S. (2000). How Increasing Value to Customers Improves Business Results. In: *MIT Sloan Management Review* 42, No. 1, pp. 27-37.
22. Vandermerwe, S. (1993). Jumping into the Customer's Activity Cycle: A New Role for Customer Services in the 1990s. In: *Journal of World Business* 28, No. 2, pp. 46-65.
23. Weinberger, D.D. (1991). The Active Document. In: *Futurist* 25, No. 4, pp. 25-28.
24. Winter, R. (2002). Retail Banking im Informationszeitalter. Trends, Geschaeftsarchitektur und erste Beispiele. In: Leist, S. and Winter, R. (eds.), *Retail Banking im Informationszeitalter.* Springer. Berlin, pp. 29-50.
25. Yeung, V.W.S. and Armstrong, R.W. (2003). A Key to TQM Benefits: Manager Involvement in Customer Processes. In: *International Journal of Services Technology and Management* 4, No. 1, pp. 14-29.