

THE E-FINANCE LAB IS AN INDUSTRY-ACADEMIC RESEARCH PARTNERSHIP BETWEEN FRANKFURT AND DARMSTADT UNIVERSITIES AND PARTNERS ACCENTURE, BEARING_POINT, DEUTSCHE BANK, DEUTSCHE BOERSE GROUP, DEUTSCHE POSTBANK, FINANZ_IT, IBM, MICROSOFT, SIEMENS, T-SYSTEMS, DAB BANK, AND ISOTELEDATA LOCATED AT J. W. GOETHE UNIVERSITY, FRANKFURT AM MAIN.

e finance lab
Frankfurt am Main

EFL quarterly 01|2006

AN E-FINANCE LAB PUBLICATION

- > Finanzprodukte in der Auszahlungsphase der Kapitalgedeckten Alterssicherung
- > Digitized Handwritten Signatures replacing PIN/TAN
- > SMEs view on German banks credit process
- > Entwicklung des Europäischen Kartenmarktes



accenture BearingPoint Deutsche Bank DEUTSCHE BÖRSE GROUP Postbank FINANZ_IT IBM Microsoft SIEMENS T-SYSTEMS

JOHANN WOLFGANG GOETHE
UNIVERSITÄT
FRANKFURT AM MAIN



TECHNISCHE
UNIVERSITÄT
DARMSTADT

DAB bank ISOTELEDATA

IMPRESSUM

Redaktion

Prof. Dr. Wolfgang König
Vorstandsvorsitzender des E-Finance Lab
Frankfurt am Main e. V.

Herausgeber

Prof. Dr. Wolfgang König

Kontakt

info@efinancelab.com
www.efinancelab.com

Gestaltung

Novensis Media GmbH & Co. KG
Bad Homburg

1. Ausgabe, 2006

Copyright © by E-Finance Lab Frankfurt am Main e. V.

Printed in Germany

Das Geheimnis des Guten Lebens(abends): Finanzprodukte in der Auszahlungsphase der Kapitalgedeckten Alterssicherung

"THE SECRET TO LIVING WELL IS TO DIE WITHOUT A CENT IN YOUR POCKET. BUT I SEEM TO HAVE MISCALCULATED".

Jorge Guinle (NYT 6.3.2004)

Die Erkenntnis, dass sich in Deutschland durch die umlagefinanzierte gesetzliche Rentenversicherung der gewohnte Lebensstandard im Alter nicht mehr halten lässt, ist mittlerweile dem Großteil der Bevölkerung bekannt. Entsprechend hoch ist das Interesse, durch Eigenvorsorge im Rahmen einer kapitalgedeckten Altersversorgung die Rentenlücke zu schließen. Aus der finanzwirtschaftlichen Perspektive handelt es sich dabei um einen systematischen Spar- und Entnahmeprozess: Jedes Individuum baut während der Ansparphase einen eigenen Kapitalstock auf. In der sich anschließenden Entnahmephase wird aus dem aufgebauten Kapitalstock der Lebensunterhalt finanziert.

Ein Blick auf die Produkte, die hierfür von Banken, Versicherungen und Investmentgesellschaften angeboten werden, zeigt allerdings eine gewisse Einseitigkeit: Im Mittelpunkt steht vornehmlich der langfristige Vermögensaufbau bis zum Ruhestand. Hier soll an die Geschichte von Jorge Guinle erinnert werden. Jorge war einer der bekanntesten Playboys seiner Zeit – Affären u. a. mit Marilyn Monroe, Rita Hayworth und Anita

Ekkberg wurden ihm nachgesagt – und verfügte als Erbe einer der reichsten brasilianischen Familien über ein großes Vermögen, das er mit vollen Händen ausgab. Allerdings war dieses Leben wohl doch etwas zu kostspielig, sodass Jorge die letzten zwanzig Jahre seines Lebens in recht ärmlichen Verhältnissen verbringen musste. In einem seiner letzten Interviews kurz vor seinem Tod zog er als Fazit: "The secret to living well is to die without a cent in your pocket. But I seem to have miscalculated".

Will heißen: Schätzt man seine Lebensdauer zu kurz ein, kann es einem wie Jorge Guinle ergehen. Ist man zu optimistisch was die Lebensdauer betrifft, so freuen sich die Erben über das genügsame Leben. Was also tun?

Das klassische Produkt für die Entnahmephase ist die Leibrente, die lebenslange Rentenzahlung verspricht, also einen Schutz gegen die finanziellen Folgen unerwarteter Langlebigkeit. Durch das Bündeln von Risiken bieten Leibrenten auch eine höhere Entnahmerendite als individuelle Lösungen mit vergleichbarer Stabilität in den Auszahlungshöhen.



Prof. Dr. Raimond Maurer

ist Inhaber des Lehrstuhls für Investment, Portfolio Management und Alterssicherung an der Goethe-Universität Frankfurt/M. Mit dem E-Finance Lab arbeitet er seit zwei Jahren im Bereich Asset Management zusammen, u. a. zu Fragen der Portfolio-optimierung, Steuerung von Wechselkursrisiken und zu Investmentprodukten mit Mindestrenditegarantien.

Auf der anderen Seite sind Leibrenten aufgrund ihres kollektiven Charakters illiquide. Für den Versicherten ist es nicht möglich, Teile seines Kapitals doch schneller zu verzehren, wenn beispielsweise unerwartet nach Vertragsabschluss mit einer verkürzten Lebenserwartung zu rechnen ist. Auch bieten Leibrenten in ihrer Standardform kein Vererbungspotential.

Bei individuellen Auszahlplänen legt der Ruheständler sein Anlagekapital etwa in Investmentfonds an und entnimmt Monat für Monat einen bestimmten Betrag, den er selbst bestimmen kann. Der Ruheständler

kann also jederzeit flexibel auf sein Kapital zugreifen und damit auf geänderte Lebenspläne reagieren – und Restvermögen vererben. Allerdings bieten Investmentrenten nur eingeschränkten Schutz gegen die finanziellen Risiken der Langlebigkeit.

Hybride Entnahmepläne versuchen die Vorteile beider Produktvarianten weitgehend zu erhalten und die jeweiligen Nachteile möglichst zu vermeiden. Beispielsweise startet man zu Beginn des Ruhestands mit einer Investmentrente und schichtet diese ab einem bestimmten Alter teilweise oder vollständig in Leibrenten um. Bei der Riester-Rente ist dieser Umschichtungszeitpunkt mit 85 Jahren gesetzlich vorgeschrieben. Viele andere Varianten der Portfoliobildung aus Leib- und Investmentrenten sind möglich.

Die finanzielle Gestaltung des Lebensabends wird in der Zukunft eine immer wichtigere Aufgabe für die Finanzindustrie sein. Hierbei spielt nicht nur die Entwicklung intelligenter Entnahmepläne eine wichtige Rolle. Vielmehr müssen diese Lösungen, besonders im Retailgeschäft, auch durch effiziente IT-Systeme unterstützt werden. Beide Aufgaben – Produktentwicklung und IT-Systeme – sind durch die Finanzindustrie zu bewältigen, damit die Wertschöpfungskette möglichst profitabel ist und nicht nur den alternden Playboys dieser Welt bei der finanziell geschickten Gestaltung ihres Lebensabends geholfen werden kann.

SMEs view on German banks credit process

EMPIRICAL EVIDENCE ON THE OUTSIDE PERCEPTION OF THE CREDIT PROCESS

FABIAN GLEISNER

Introduction

Customer advisors spend only half of their working day in direct contact with the customer. This was one finding of our 2004 empirical survey with the German Top 500 banks on credit process excellence. Significant potential for optimization of the credit process was revealed: Only 60% of banks' SME clients were profitable after operating, risk, and capital cost. As a response banks have to increase their earnings by means of risk-adjusted credit pricing and cross-selling.

Against this background we conducted an empirical survey with 2,102 German SMEs on credit processes. We wanted to compare the 2004 results with the outside perception of the credit process. By evaluating the SMEs view on advice given by banks, the rating process, service, and credit availability, further optimization potential can be identified. We address the "Hausbank" (house bank)-relationship between SME and bank as well as the acceptance of likely future scenarios of the credit process.

ANDREAS HACKETHAL

Data Sample

The survey "Kreditprozesse aus Sicht des Mittelstands" (SMEs view on credit process) was carried out in August of 2005 in cooperation with the Frankfurt am Main chamber of commerce and industry. A total of 187 SMEs from Rhein-Main area as well as the State of Rhineland-Palatinate and the State of Saarland provided information about their perception of German banks credit process.

Findings

Hausbank-relationship – SMEs on average have 2.8 bank relationships but can always identify one Hausbank as their prime lender. On average, 50% of total credit volume is held at the Hausbank. A closer Hausbank-relationship correlates with a higher credit volume being held at the Hausbank.

The majority (62%) of SMEs is owner-operated. 40% of owners are also customers of their enterprises Hausbank in private financial matters. This underlines the close Hausbank-SME relationship.

Value added – Do SMEs trust their customer advisors? We found that the majority of SMEs (70.5%) have a trust based relationship with their key account manager. 45.6% of SMEs see the value-added of their Hausbank-relationship in advice received, particularly advise about the rating process.

Another value added of a Hausbank-relationship is the support of the enterprise in case of temporary financial problems. 81.4% of SMEs acknowledge an information lead of their Hausbank compared to other banks as well as to the market. Regression analysis confirms a relationship between this information lead and expected liquidity insurance.

Credit conditions – 35.5% of the respondents have better credit conditions at their Hausbank. In contrast accept 29.5% of

SMEs a premium on credit conditions at their Hausbank vis-à-vis other banks. Figure 1 illustrates that an average premium of 0.34% (median: 0.25%) on the credit conditions is accepted.

Declaration of value added within the Hausbank-relationship correlates with the perception of better credit conditions at the Hausbank. One can draw the conclusion that the value added within a Hausbank-relationship is included in the overall perception of credit conditions.

Rating process – Did knowledge of the rating process improve significantly in the past years? The rating is the determining factor for credit decisions as well as credit conditions. Figure 2 points out that only every second SME (50.9%) is familiar with the rating at their Hausbank. Even less (42%) know how

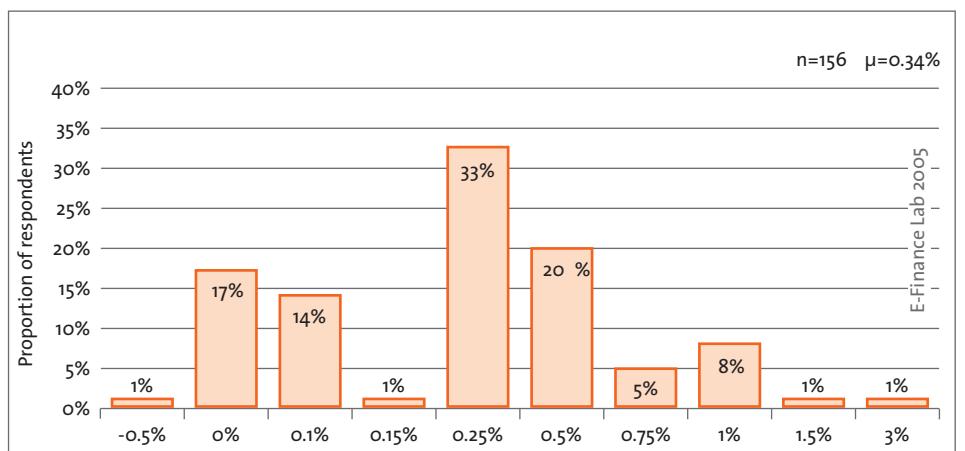


Figure 1: Average accepted additional charge on credit conditions at the Hausbank.

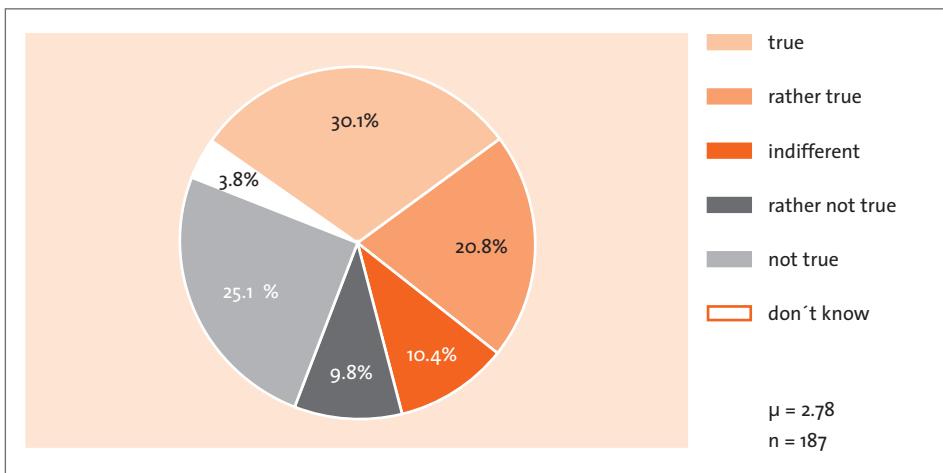


Figure 2: "Our enterprise is familiar with the internal rating of our Hausbank".

their rating is calculated. This corresponds to current results of other German SME questionnaires. This result is quite striking considering that the topic has been present for several years now.

A necessity for advice about the rating process can be inferred. Within the sample only 35.2% of SMEs received advice concerning the rating process, and up to now 19.1% took steps to improve the rating in cooperation with the Hausbank. Receiving rating advisory correlates with a positive overall view of the rating process.

Credit process – The credit process from application to cash disbursement on average takes 28 days. This is in sharp contrast to our 2004 survey when the banks declared to process a credit within 10.8 days. One

possible reason for this deviation could be lack of communication about the requirements of a credit application: 46.9% of SME did not get a list of all necessary documents when applying for credit. Another reason revealed in our 2004 survey is related to time consuming media conversions: Every second bank stated that data must be manually reentered into the systems during the credit process.

Access to credit – For more than a quarter of SMEs within the sample (27.3%) credit is hardly available. Credit availability is significantly worse for SME with a Hausbank-relationship to a Sparkasse institution, and significantly better for SME with a private bank.

The results presented in figure 3 "credit availability" support our 2004 survey. As an

instrument for risk management, 68% of banks indicated a refusal of credit to certain customer groups, whereas 29.7% of banks stated to focus on the acquisition of specific customer groups.

Credit process: Future scenarios

A likely future scenario of the credit process is the increased use of external rating agencies by banks. 36.8% of SMEs within the sample are willing to obtain an external rating, whereas only 5.4% were actually in contact with an external rating agency.

Another scenario is an automated link that allows the Hausbank access to certain financial data of the SME (Value Chain Crossing, VCC). 31.7% of SMEs would agree to such a cooperation, and 21.8% assess VCC as beneficial.

Conclusion

Evaluation of the outside perception of the credit process validates the potential for optimization shown in our 2004 survey of German Top 500 banks. One key to further process optimization lies with the customer advisor, who typically spends only half of his day in direct contact with the customer. Customer satisfaction as well as the perception of a value added within the Hausbank-relationship are mainly driven by the customer advisor. Through the automation of the rating process we expect the duration as well as the cost of the credit process to decline considerably. Integrating the credit process in a centralised IT platform furthermore reduces unnecessary media conversions.

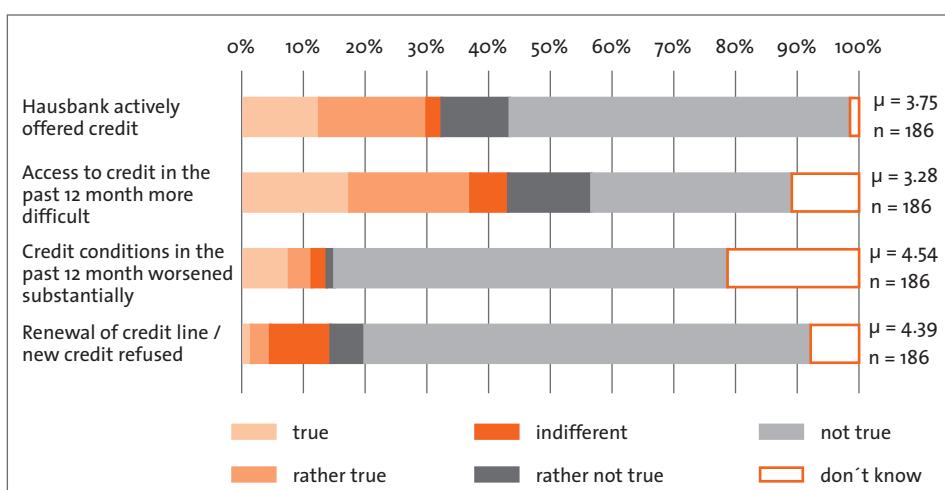


Figure 3: Credit availability

Digitized Handwritten Signatures replacing PIN/TAN

PIN/TAN AS AUTHENTICATION PROCEDURE FOR ONLINE BANKING HAS CERTAIN LOOPHOLES. THUS, WE HAVE DESIGNED AND IMPLEMENTED A SYSTEM THAT USES THE DIGITIZED HANDWRITTEN SIGNATURE AS AUTHENTICATION METHOD TO OVERCOME THOSE PROBLEMS.

NICOLAS REPP
OLIVER HECKMANN

RAINER BERBNER
RALF STEINMETZ

Introduction

Nowadays, online banking is widespread in Germany. According to the Deutscher Sparkassen- und Giroverband (2004) there were about 35 million online banking accounts in Germany in late 2004. But approximately only 1/3 of the online banking accounts are frequently used by their owners as reported by Hardock and Wübker (2002).

Key reasons not to use existing online banking accounts are often security concerns of the respective account owners. Those concerns are strengthened by the incidents with regard to security reported by the press over the last year. Spoofing, phishing, and Trojan horses are possible attack patterns used by fraudsters with regard to online banking. This article gives an overview about the approaches for authentication and authorization used in current online banking systems. Furthermore it investigates a user friendly alternative to existing approaches based on digitized handwritten signatures.

The use of digitized handwritten signatures in a prototype including its unique biometric characteristics as authentication tool for login to online banking applications and proof of intent for an online transaction is shown thereafter.

The prototype is a result of the cooperation between E-Finance Lab Cluster 2, the Multimedia Communications Lab of Technische Universität Darmstadt and Softpro, a leading manufacturer of software for biometric signature handling.

The remainder of this article is organized as follows: in the next section we give an overview about different authentication and authorization approaches that can be used in online banking scenarios. Furthermore security issues of the approaches used today are discussed. The prototype, which is using digitized handwritten signatures for online banking, is described in the following section. The article closes with an outlook on future research issues and practical applications.

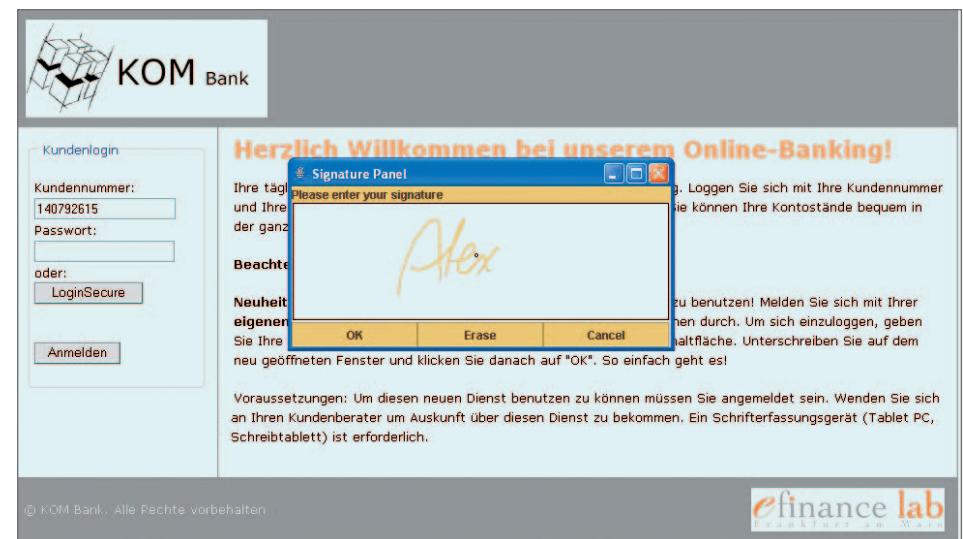


Figure 1: Login to Online Banking using a Handwritten Signature.

Authentication and Authorization for Online Banking

In this section, we describe the most important approaches used to implement authentication and authorization in current online banking. Our focus is hereby on approaches used by banks and other financial institutions in Germany.

PIN/TAN

The most commonly used system for authentication of a user and authorization of transactions is the so-called PIN/TAN approach. Personal Identification Numbers (PIN) and Transaction Numbers (TAN) enable online banking without the use of dedicated hardware. A client needs his user ID (e.g. account number) in combination with his secret PIN

to login to the online banking system of his bank. To authorize a transaction the client further needs to enter an arbitrary TAN from his TAN sheet which only can be used for a single transaction and gets invalid thereafter. The PIN/TAN approach has certain loopholes. Its security relies on the client's ability to remember his PIN code and to securely store his TAN sheet. PINs and TANs are subject to phishing attacks and forgotten access codes are causing additional helpdesk efforts. In order to overcome the problems resulting out of the PIN/TAN approach different enhancements were developed. The most popular is the indexed TAN (iTAN) approach. Instead of accepting an arbitrary TAN from the TAN sheet the online banking system asks for a dedicated TAN reducing the risk of

authorizing a transaction with only a few TANs stolen.

A hardware based TAN enhancement is the electronic TAN (eTAN). A hardware token creates a valid TAN on basis of a control number issued by the online banking system during a transaction. The token has to be paid by the client in most cases.

An enhancement of traditional PIN/TAN, which is used by some banks in Germany, is the mobile TAN (mTAN) approach. A client has to escrow his mobile number in the banking system. In case a transaction is started in the online banking system the systems sends a valid TAN as a short message (SMS) to the client. The TAN is only valid for the transaction started.

HBCI

As an alternative to PIN/TAN, the Home Banking Computer Interface (HBCI) can be used. HBCI is based on asymmetric encryption methods thus using public and private key encryption for transactions and authentication purposes. Usually the keys are stored on smartcards only accessible using a dedicated card reader. The private key can be unlocked only with a PIN.

HBCI is only protected against fraudsters using Trojan horses if the PIN to unlock the private key is entered directly on the card reader using a pin pad. But similar to the eTAN approach the dedicated hardware has to be bought by the client in most cases.

Both PIN/TAN and HBCI are integrated in the Financial Transaction Services Framework (FinTS) of the Zentraler Kreditausschuss (ZKA).

Digitized Handwritten Signatures

Often neglected is an obvious method for authentication and authorization. Every client knows the process of signing important documents in order to actively agree to its content. Furthermore almost every client is aware not to sign off a document without checking it before.

Using signature capturing devices as for example integrated in a Tablet PC or in form of specialized hardware (Figure 2 – <http://www.signplus.com/de/press/gallery/>), it is possible to use handwritten signatures in various electronic processes.

Other types of authentication and authorization based on biometrical features are not



Figure 2: Capturing of Handwritten Signatures using a Pen Pad.

widely accepted in the financial community for application in processes with client interaction. The application of those methods is hard to explain to clients and needs a massive effort to implement and roll out. On client side there often exist concerns with regard to the security of the biometrical features and to privacy.

The handwritten signature has an exceptional position under all biometrical methods because it uses one of the few biometrical features that can only be captured if the client agrees to. In contrast to the capturing of e.g. retina patterns or finger prints, which is completely passive and can be accomplished without explicit approval of a person, signing always is an active process.

The handwritten signature has further advantages. It is hardly possible to forget your own handwritten signature. Furthermore theft of a handwritten signature with all its biometrical features is a complex task because of the dedicated hardware needed for that process. For example it is not possible to use the data captured by a parcel service on a signature pad for online banking fraud because the pad is not able to capture enough features of the handwritten signature.

A handwritten signature consists of static and dynamic features as described by Schmidt (1999) and van Gemmert et. al. (1996). Part of those features is for example the image of the signature, the acceleration or the pressure

measured during the signing process. After initially capturing the features they are saved as a reference.

A single handwritten signature consists of several strokes. The start- and endpoints of those strokes are static features of every signature with unique characteristics. They can be extracted from a single signature or by comparison of several signatures. Analyzing the dynamical features of a handwritten signature it can be assured that a signature given is not only identical to its reference by its image but was also really created by the person the reference belongs to.

Financial institutions can reach a higher acceptance by their clients as signing a document is a well known process and not as abstract as PIN/TAN or HBCI. Furthermore the usage of a handwritten signature will improve the usability for the client.

Prototypical Implementation

The prototype we have developed is currently used to evaluate the potentials of such a solution with possible users.

After accessing the web portal of our online bank the user gets access to a typical login screen implemented and used in several real world online banks.

The user now can enter his account number as user-ID. Furthermore he has to enter a PIN (using PIN/TAN approach) or to sign a specia-

lized form which opens after pressing a dedicated button („LoginSecure“), as depicted in Figure 1. In our prototype, the signature is captured using a Tablet PC but any other signature capturing device can be used instead (e.g. a pen pad connected to standard PC).

After the successful capturing of a handwritten signature and its comparison to the reference stored in the online banking system, the user gets access to a page containing an overview of all possible transactions. Same goes for the successful authentication of the user by PIN. Our prototype currently supports the following transactions:

- Check of balance for account and credit card
- Create and submit bank transfers
- Change personal information.

All transactions with need for authentication can additionally use the digitized handwritten signature.

There are two different approaches for the creation of bank transfers that can be used in our prototype. The first method is identical to the approach used in all current online banking systems. A user can fill out a bank transfer form using the keyboard. The second method allows filling out a bank transfer form using handwriting recognition and a capturing device.

After filling out the bank transfer form the user is led to a page showing all data inserted in the form before. No matter which method the user chose to fill out the form he can

decide to use TAN or digitized handwritten signatures for authentication thereafter. In case handwritten signatures are used a special form will be shown in which the user can enter his signature. The captured signature is analyzed thereafter and compared to the reference stored in the online banking system. If the comparison was successful the bank transfer will be authorized and submitted to the backend banking system. Changing of personal information is done in the same fashion.

Practical Applications and Outlook

Digitized handwritten signatures can be used in almost every channel of a bank that needs authentication and authorization. For example, it is possible to apply signature capturing and digitized handwritten signature processing to front-office processes like the account opening process. Furthermore, the integration of different channels of a financial institution organized as a multi channel institution can be realized using digitized handwritten signatures. The integration would be implemented in form of a consistent system for authentication and authorization shared by different channels as depicted in Figure 3. A signature captured during the account opening process using a capturing device (e.g. Tablet PC of clerk) could be used for self service terminals, at the point of sale or in the online banking. Additionally the account opening form would not have to be scanned after the signing because it is already in digital form.

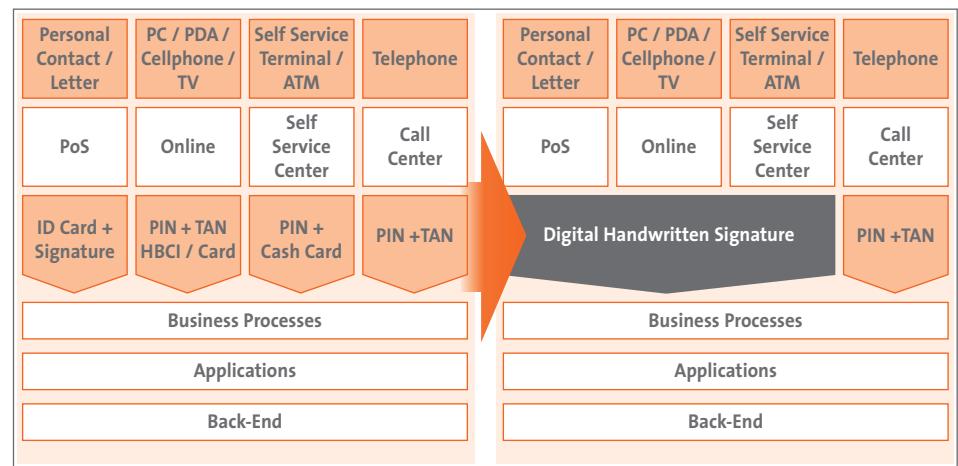


Figure 3: Multi Channel Integration using Digitized Handwritten Signatures

Results of such integration could be:

- Reduction of costs for administration of user authentication and transaction authorization
- Reduction of media discontinuities generating faster and error resilient processes
- Enhancing flexibility of processes
- Improved usability for clients
- Higher acceptance on client side
- Enhanced security on base of increased user awareness

In the future it is planned to evaluate the application of digitized handwritten signatures in various scenarios with our partners of the E-Finance Lab.

References

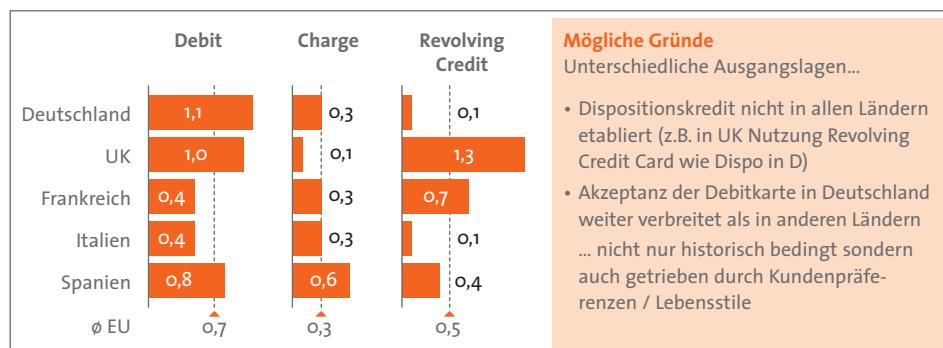
- Deutscher Sparkassen- und Giroverband**
“Sparkassen-Finanzgruppe führt fast jedes zweite Online-Konto in Deutschland”, press release, 7/2004.
- Hardock, P. and Wübker, G.**
“Online Banking: Weit verbreitet, doch kaum genutzt?”, Die Bank, 6/2002, pp 376.
- Schmidt, C.**
“Online Unterschriftenanalyse zur Benutzer-verifikation”, PhD Thesis, RWTH Aachen, 1999.
- van Gemert, A., van Galen, G., and Hardy, H.**
“Dynamical features of disguised handwriting”, Proceedings 5th European Conference for Police and Handwriting Experts, The Hague, Netherlands, 1996.

Das Europäische Kartengeschäft

**INTERVIEW MIT DIETRICH VOIGTLÄNDER
VORSTANDSMITGLIED DER DZ BANK AG,
FRANKFURT AM MAIN.**

Wie ist die Entwicklung des europäischen Kartenmarktes zu bewerten?

Voigtländer: Der europäische Kartenmarkt wuchs mit Blick auf das Transaktionsvolumen in den acht Kernländern der EU – das sind Deutschland, Großbritannien, Frankreich, Irland, Italien, Belgien, Niederlande und Spanien – von 1998 bis 2004 durchschnittlich um mehr als 10% pro Jahr. Dabei ist die Struktur des europäischen Kartenmarkts aber sehr heterogen (siehe Bild). Die Vereinheitlichung dieser Marktstrukturen wird zwar forciert, kann aber meines Erachtens nicht kurzfristig realisiert werden. Gründe sind z. B. die enormen Investitionen in unterschiedlichen Infrastrukturen sowie die differierenden Kundenpräferenzen basierend auf unterschiedlichen Lebensstilen (etwa Bereitschaft zum kreditfinanzierten Konsum).



Wie ist dabei der deutsche Markt, insbesondere bei Kreditkarten, einzuordnen?

Voigtländer: Im Referenzzeitraum ist die Anzahl der Karten um durchschnittlich 9% jährlich gestiegen. Die Transaktionsvolumen ebenso wie die Nutzungshäufigkeit sind in diesem Zeitraum zwar unterdurchschnittlich, aber immer noch mit ca. 5% p. a. gewachsen – dies sogar vor dem Hintergrund einer Stagnation bei der Händlerakzeptanz zwischen 2001 und 2004. Deutschland hat in jedem Fall noch erhebliches Wachstumspotenzial. Im europäischen Vergleich liegt Deutschland nur auf Platz 4 bei Kartenanzahl und Platz 6 bei der Anzahl Transaktionen.

Welche Herausforderungen stellen sich?

Voigtländer: Für Markteinsteiger sind dies insbesondere die kostengünstige Neukunden-Akquisition und das Cross-Selling zur Kompen-sation des niedrigen Preisniveaus. Für etablier-te Banken – wie z. B. im genossenschaftlichen FinanzVerbund – sind es dagegen genau diese

aggressiven neuen Anbieter, die es zu beobachten gilt. Der Markteintritt ist durch die europäische Niederlassungsfreiheit einfach, wenn der Kundenzugang beispielsweise über die Zusammenarbeit mit Retailern oder anderen Cobranding-Partnern erreicht werden kann. Die Royal Bank of Scotland mit der Com-fort Card in Kooperation mit Tchibo ist ein Beispiel. So wird der Markt für Revolving Credit Cards in Deutschland heute von Direktbanken und Retailern dominiert, die zusam-men 45% Marktanteil haben und so eine klare Bedrohung für die klassischen Filialbanken darstellen. Doch dies ist nur die Spitze des Eisbergs. Heute ist die Karte einer der Schlüssel zur Kundenbeziehung. So kann der Dialog mit dem Kunden (z. B. Kontoauszüge) genutzt werden, um eine hohe Cross-Selling-Rate bei marginstarken Produkten zu erreichen. Damit steht potentiell der gesamte Ertragspool des Kunden (Termingeschäft, Anlageprodukten, Bau-finanzierung etc.) auf dem Spiel. „Wer die Karte hat, hat den Kunden.“

Kann Produktdifferenzierung helfen?

Voigtländer: Ein Grund für die schwache Marktposition etablierter Banken ist das ein-förmige Angebot. Mit einem stärker differen-zierten Image, Design und Branding und mit ein bisschen Phantasie kann man hier man-cherlei erreichen. Im Bereich Revolving-Credit- und Charge-Karten ist die Gestaltungsvielfalt auch in Deutschland bereits deutlich breiter als bei Debitkarten. Ein erfolgreiches Differen-zierungsbeispiel ist die niederländische Postbank: 2002 wurde eine Basisdebitkarte mit nationaler Zahlungsfunktion (zunächst kosten-

los, seit 2004 zum Preis von vier Euro) einge-führt. Gleichzeitig hat man eine Premium-version mit internationaler Zahlungsfunktion zum Preis von sieben Euro (seit 2004 neun Euro) per Mailing angeboten. Die Akzeptanz-rate lag bei 80%. Und die Kundenverluste waren – trotz negativer Presse – minimal. Jetzt haben die meisten nationalen Wettbe-werber, z. B. Rabobank und ABN Amro, nach-gezogen.

Kann man eine solche Leistung bei guter Qualität trotzdem preiswert erbringen?

Voigtländer: Für eine attraktive Produkt-gestaltung benötigt man eine gute Verzahnung mit Dienstleistern. Diese sind Utilities, die mit fabrikähnlichen Prozessen schnell und effizient zu arbeiten haben. Der genosse-schaftliche Finanzverbund hat daher seine Aufstellung beim Thema Karten optimiert. Mit Gründung der Card Process ist es geglückt, sich auf ein Verfahren und einen Dienstleister für die technische Unterstützung zu einigen, was massive Synergievorteile erbringt. Im Rahmen dieser Restrukturierung wurde auch die Aufgabenverteilung neu geklärt. Die Zentralbanken managen die Karten-Lizenzen und ermöglichen die Ausgabe von Kredit-karten. Unser Wertschöpfungsanteil besteht also in der Übernahme der Legal Risks, dem Produkt- und Lizenzmanagement und ähnli-chen Themenstellungen. Für die übergreifenden grundsätzlichen Fragestellungen sowie die Organisation des strategischen Willen-bildungsprozesses im FinanzVerbund ist der BVR zuständig.

news

Deutsche Börse joins the E-Finance Lab

The E-Finance Lab proudly announces a new tier-1 partner: Deutsche Börse AG. Dr. Reto Francioni, the CEO, will represent the Deutsche Börse in the Board of Trustees. Rainer Riess Managing Director, Stock Market Business Development, will become member of the managing board of the E-Finance Lab. A hearty welcome!

Peter Gomber appointed to run a fifth E-Finance Lab research cluster

The managing board of the E-Finance Lab decided to start a fifth research cluster "Managing the Securities Trading Value Chain" and to appoint Peter Gomber, since 2004 Professor of E-Finance at Frankfurt University, as manager. Also a hearty welcome!



Roland Koch appointed Ralf Steinmetz to Hessian Advisory Council

IT and multimedia communication "made in hesse" got a new face: Hessian Prime Minister Roland Koch appointed Prof. Dr.-Ing. Ralf Steinmetz (Cluster 2) from TU Darmstadt to his new technology advisory council. As one of eight members of the board, Steinmetz will represent Information and Communication Technology.

The Third Spring Conference of the E-Finance Lab

The third spring conference of the E-Finance Lab will take place on the 28th of March 2006 (starting at 14.00 o'clock) at the Campus Westend of the University Frankfurt. This year's topic will be "Growth Opportunities in the Banking Industry". High-ranked professionals and academics will take about various growth opportunities like products, IT and sales. Further information will be available on the webpage <http://www.efinacelab.com>.



Prof. Dr. Bernd Skiera one of our smartest

Recently, Handelsblatt has published a ranking of German professors in business administration called "Die klügsten Köpfe der BWL". The ranking is mainly based on publications in international and well-known journals. Prof. Bernd Skiera (Cluster 3) is listed in the Top Ten of this ranking.

selected efinance lab publications

Berbner, R.; Heckmann, O.; Steinmetz, R.:

An Architecture for a QoS driven composition of Web Service based Workflows. Networking and Electronic Commerce Research Conference (NAEC). Lake Garda, Italy, October 2005.

Repp, N.; Berbner, R.; Perez, A.; Lenz, J.;

Kaplan, C.; Heckmann, O.; Steinmetz, R.:

Digitalisierte eigenhändige Unterschrift im Online-Banking. Forthcoming in: Proceedings of the D-A-CH Security 2006. Düsseldorf, Germany, March 2006.

Blumenberg, S.; Hinz, D.:

Enhancing the Prognostic Power of IT Balanced Scorecards.

In: Proceedings of the 39th Hawaiian International Conference on System Sciences (HICSS 39). Kauai, USA, 2006.

Weitzel, T.; Beimborn, D.; König, W. :

A Unified Economic Model of Standard Diffusion: The Impact of Standardization Cost, Network Effects and Network Topology. Forthcoming in: Management Information Systems Quarterly (MISQ), 2006.

Friedrich, L.; Gellrich, T.:

Strategic Decisions regarding the Vertical Integration of Human Resource Organizations – Evidence for an integrated HR model for Financial Services and Industry in Germany, Austria, and Switzerland.

In: Proceedings of the INFORMS Annual Meeting. New Orleans, USA, 2005.

Weitzel, T.:

Process governance and optimization for IT Reliant Business Processes: an empirical analysis of financial processes in Germany's Fortune 1,000 non-banks. In: Proceedings of 39th Hawaii International Conference on System Sciences. Kauai, USA, 2006.

Gellrich, T.; Holzhäuser, M.:

Lean Banking – Myth or Success Formula, Midwest Finance Association's 55th Annual Meeting, <http://www.mfa-2006.com/>. Chicago, USA, March 2006.

Wiesel, T.; Skiera, B.:

Linking Customer Metric to Shareholder Value for Firms with Contractual Relationships. In: Proceedings of the International Workshop on Customer Relationship Management: Data Mining meets Marketing. New York, USA, 2005.

Gewald, H.; Helbig, K.:

A Governance Model for Managing Outsourcing Partnerships. In: Proceedings of 39th Hawaii International Conference on Systems Sciences. Kauai, USA, 2006.

For a comprehensive list of all E-Finance Lab publications see

www.efinancelab.com/pubs/pubs.php

research outside the efinance lab

RESEARCH PAPER: A STRATEGIC FRAMEWORK FOR CUSTOMER RELATIONSHIP MANAGEMENT

The authors develop a conceptual framework for customer relationship management (CRM) that helps broaden the understanding of CRM and its role in enhancing customer value and, as a result, shareholder value. They emphasize the need for a cross-functional, process-oriented approach that positions CRM at a strategic level. They identify five key cross-functional CRM processes: a strategy development process, a value creation process, a multichannel integration process, an information management process, and a performance assessment process. They develop a new conceptual framework based on these processes and explore the role and function of each element in the framework. The synthesis of the diverse concepts within the literature on CRM and relationship marketing into a single, process-based framework should provide deeper insight into achieving success with CRM strategy and implementation.

Payne, A.; Frow, P.

Journal of Marketing, Volume 69, October 2005, p. 167-176

RESEARCH PAPER: WEB SERVICES-ORIENTED ARCHITECTURE IN PRODUCTION IN THE FINANCE INDUSTRY

The authors describe how Sparkassen Informatik, a large German joint-use centre supplying services to 236 individual savings banks, implemented a services-oriented architecture consisting of standardized business functions (processes) to be reused in new applications in a flexible and channel-neutral manner.

This paper discusses the rationale behind Sparkassen Informatik's decision for Web services, and gives an architectural overview of the integration approach. Furthermore, it features the lessons learned during the implementation of this enterprise-scale solution.

Brandner, M.; Craes, M.; Oellermann, F.; Zimmermann, O.

Informatik-Spektrum, Springer-Verlag, Volume 27, Issue 2, p. 136-145

RESEARCH PAPER: WELCHE WERTE SCHAFFEN ZENTRALEN?

The study is based on a survey of 87 executives of German banks. It researches the influence of corporate headquarters on the business of different divisions. The headquarters must carefully weigh in which areas they can provide added value to the divisions. In the long-run the workflow and structure of the headquarters must be matched with the value chain of the divisions. In addition it is necessary to introduce concepts to measure the added value of each division to control and manage the divisions more efficiently.

Kleine, J.; Mahnke, V.; Venzin, M.

Die Bank, January 2006, Issue 1, p. 49-53

electronic newsletter

Das E-Finance Lab betreibt zwei Typen von Newslettern, die beide quartalsweise erscheinen, sodass alle sechs Wochen die jeweils andere Art herauskommt. Bei dem hier vorliegenden gedruckten Newsletter steht die Beschreibung der Ergebnisse zweier Forschungsprojekte des E-Finance Lab im Zentrum – ergänzt durch ein Interview und weitere Kurzinformationen. Zur Subskription senden Sie bitte eine E-Mail an: eflquarterly@efinancelab.com oder ihre Visitenkarte mit der Notiz „bitte gedruckten Newsletter zusenden“ an:

*Prof. Dr. Wolfgang König
E-Finance Lab, Universität Frankfurt
Mertonstr. 17, 60054 Frankfurt*

Der elektronische Newsletter hingegen setzt mehr auf kurze Anmoderationen und den Einsatz von Hyperlinks zu weiterführenden Ressourcen. Zur Subskription senden Sie bitte eine E-Mail an: newsletter@efinancelab.com

Viele weitere Informationen finden Sie unter www.efinancelab.com.