

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

*e*finance lab
Frankfurt am Main

EFL quarterly 02|2007

AN E-FINANCE LAB PUBLICATION

- > Beyond SEPA – Opportunities for Banks and Corporates
- > Familiarity with and Usage of Service-oriented Architectures in German Banks
- > Profitable Search Engine Marketing for Financial Services
- > Banking 2.0 – The next Generation of Client Advisory



JOHANN WOLFGANG GOETHE
UNIVERSITÄT
FRANKFURT AM MAIN

TECHNISCHE
UNIVERSITÄT
DARMSTADT

accenture



Deutsche Bank



DEUTSCHE BÖRSE
GROUP

Postbank

DZ BANK Gruppe

FINANZ_IT



Microsoft

SIEMENS

T-Systems

DAB bank

Interactive Data

IMPRESSUM

Redaktion

Prof. Dr. Wolfgang König
Dipl.-Wirtsch.-Inform. Rainer Berbner
Dipl.-Wirtsch.-Ing. Julian Eckert

Herausgeber

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

Kontakt

info@efinancelab.com
www.efinancelab.com

Gestaltung

Novensis Communication GmbH
Bad Homburg

2. Ausgabe, 2007
Auflage 1.150 Stück

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

Printed in Germany

Beyond SEPA – Opportunities for Banks and Corporates

GIANFRANCO TABASSO

According to recent studies of REL Consult, European and US corporates have an estimated € 580 and \$ 450 billions in excess working capital (Myers, 2006). Excess working capital is the result of inefficiencies in the Financial Value Chain (FVC) of the corporates. The FVC is the process of generating and using cash from operations. It represents the financial flows in the order-to-cash and purchase-to-pay cycles. Excess working capital costs money to finance, generates operating costs, increases risks, and worsens financial ratios.

According to a speech in October 2006 of Gertrude Tumpel-Gugerell, Member of the Executive Board of the European Central Bank (ECB), banks should adopt new products beyond their core payment services to help corporates

DONOVAN PFAFF

in optimizing their FVC. The ECB refers to these developments under the title eSEPA. Value-added services and automated end-to-end processing will help to make many modern types of economic interaction more convenient, fast, and efficient. These value-added services, like e-invoicing, can help the corporates to optimize their FVC. Therefore, we will encounter a value chain crossing between the processes of banks and corporates. The E-Finance Lab has identified these opportunities with the first empirical research on the FVC in 2004 (Skiera et al., 2004) and subsequent publications.

The EACT and CAST

The EACT (European Associations of Corporate Treasurers) represents the financial profession;



*Gianfranco Tabasso
Chairman EACT Payment Commission and CAST
coordinator, Milano, Italy.*



*Donovan Pfaff
Former E-Finance Lab employee, currently Managing
Director of Bonpago GmbH, Schwabach, Germany.*

17 European associations with over 8.000 Treasurers, CFOs, and financial professionals working in 5,000 large and medium-size European companies. To expand the scope of SEPA beyond payments to improve E2E automation of the FVC, EACT has launched a market initiative that tackles three major problem areas: e-invoicing, e-signature, and e-reconciliation. The thrust of this initiative, called CAST (Corporate Action for Standards), is to put banks, corporates, service providers, and other stakeholders around one table to discuss and agree solutions, standards, and market schemes and allow interoperability of e-invoicing and e-signature in Europe. More than 40 European Banks and corporate sponsors participate actively in the initiative.

Re-engineering Financial Value Chain

The goal is doing more business with less working capital and reducing process costs.

For example, the EACT project on e-invoice aims at increasing corporates' awareness, eliminating fictitious barriers, promoting best practices, examining and validating new XML e-invoice standards, propose a model

contract of interoperability, and create a network of European EBPP (Electronic Bill Presentment and Payment) operators to allow cross border e-invoicing. In particular, it is important to define a new relationship and new "modi operandi" between banks and corporates. Banks should offer innovative value-added services to help their customers to optimize the financial processes. We are looking forward to work together with banks, corporates, and academic institutions like the E-Finance Lab.

References

Myers, R.:

How Low Can It Go? Companies continue to reduce working-capital levels, and they have 450 billion reasons to keep at it. In: CFO Magazine (2006) 9.

Skiera, B.; König, W.; Gensler, S.; Weitzel, T.; Beimborn, D.; Blumenberg, S.; Franke, J.; Pfaff, D.: Financial-Chain-Management – Eine empirische Untersuchung mit den 1.000 größten deutschen Unternehmen. Norderstedt, Germany, 2004.

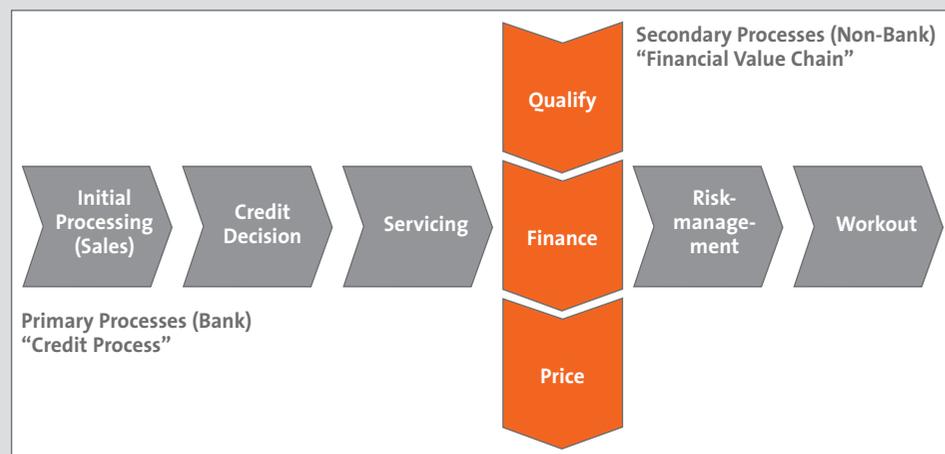


Figure 1: Financial Value Chain crossing of the processes of banks and corporates

Familiarity with and Usage of Service-oriented Architectures in German Banks

FIRST RESULTS OF A SURVEY WITH THE LARGEST 1,020 GERMAN BANKS

STEFAN SCHULTE
JULIAN ECKERT
RALF STEINMETZ

NICOLAS REPP
RAINER BERBNER
RALF SCHAARSCHMIDT*

Introduction

A current trend in software engineering is the Service-oriented Architecture (SOA) paradigm, which can be used to design and develop complex IT systems (Erl, 2005). The core concept of SOA is the “service”, which can be understood as a self-describing encapsulation of domain-specific functionalities (Krafzig et al., 2004). A purchaser buys a service – with specified characteristics and, if applicable, for a particular price. A server originates the service which is delivered via network to the customer. Business processes of the producer and the applications supporting them can be built based on compositions of distributed and loosely coupled services. “Distributed” means that services may be sourced from independent servers – either within a corporation or from outside vendors.

The implementation of service-oriented concepts is one of the main activities of many IT and business departments throughout enterprises of various industries. Nevertheless, the

impact of SOA on the banking industry in Germany has not yet been examined. Therefore, we conducted a survey with the largest 1,020 banks from which we are presenting first results in this article (as the survey has just recently been closed, the data analysis is still in progress). The group of participants included chief information officers, chief technology officers, chief software architects, and enterprise software architects of banks from all three pillars of the German banking scene (“Drei-Säulen”), i.e., commercial banks, savings banks, and credit unions.

In a burning glass, the results are: Service-oriented Architectures are a well-known and regarded topic in German banks – they excel already a certain impact. However, for almost half of the participants the SOA concept is not interesting. And with respect to crossorganizational collaboration between banks and third parties – either vendors or customers – almost 70% of the participants are not or to a lesser extent familiar with service-oriented concepts.

We present the outcomes from our survey in three different research areas.

Familiarity of participants with service-oriented concepts

We asked the participants to what extent they are familiar with the terms respectively concepts of “service-orientation”, “Service-oriented Architecture” and “service-oriented collaboration”.

As it can be seen in Figure 1, almost 75% of the participants are to some extent familiar with the concept “service-orientation”, about 47% are even quite familiar or familiar with this concept. Examining the results for the concept “Service-oriented Architectures”, the figures are just a little lower, with nearly 69% of the participants being familiar with this concept

to some extent. Nearly 30% are quite familiar or familiar with the concept “Service-oriented Architecture”.

Asked for “service-oriented collaboration”, only 31% were familiar to some extent with this concept. The percentage of participants who are quite familiar or familiar with this concept is less than 12%.

Current state of SOA adaptation in German banks

In the next question, we wanted to know if the participating banks consider an adaptation of a SOA or if they are already planning or performing a SOA implementation.

The results of this question are depicted in Figure 2. On the one hand, one third of the sur-

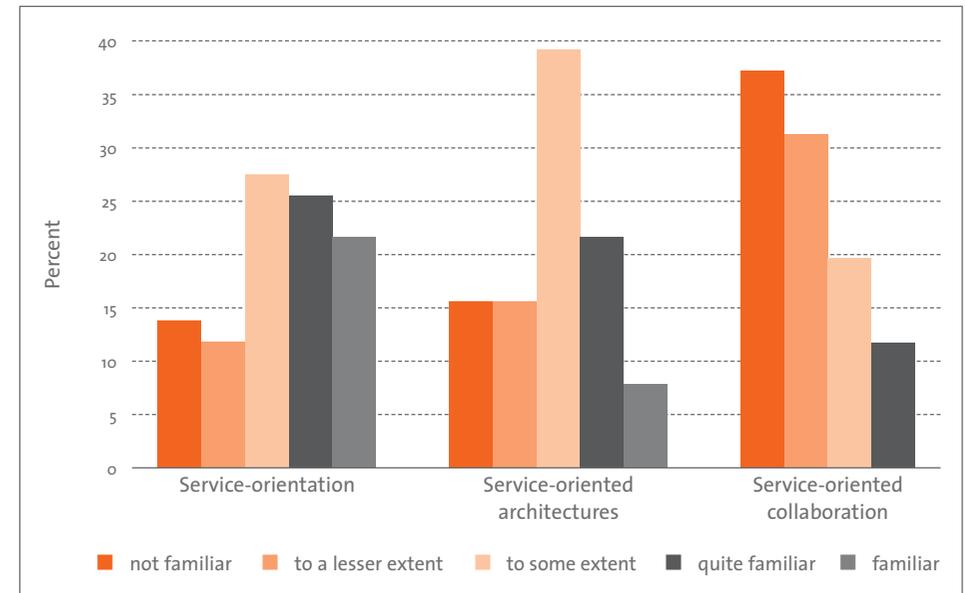


Figure 1: Familiarity of participants with service-oriented concepts

vey's participants stated that the SOA concept is not interesting at all for their companies, but on the other hand, more than 31% of the examined companies are already planning an implementation, the implementation is in progress, or already finished. Further 23% consider the implementation of SOA as interesting.

Importance of a Service-oriented Architecture for cross-organizational collaboration

How do the participants rate the importance of a Service-oriented Architecture for the cross-organizational collaboration between banks and third parties?

Currently, cross-organizational collaboration is either realized with a large amount of manual and semi-automatic processing or tight-coupling of systems – resulting in comparatively high costs and in parallel often in highly exceeding

time requirements even for simple implementations. Flexibility based on clearly defined interfaces, loosely-coupled systems, and the application of Service Level Agreements is quite uncommon.

As a result (cp. Figure 3), only less than 6% of the participants think that IT architectures are of no importance for cross-organizational collaboration. Approximately 32% rate the importance of a Service-oriented Architecture for collaboration important to a “lesser extent” or to “some extent”. The remaining 62% rate a Service-oriented Architecture as at least quite important for cross-organizational collaborations.

Conclusion and outlook

Our preliminary results show that service-orientation and SOA are well-known and regarded in the German banking scene. Almost 75%

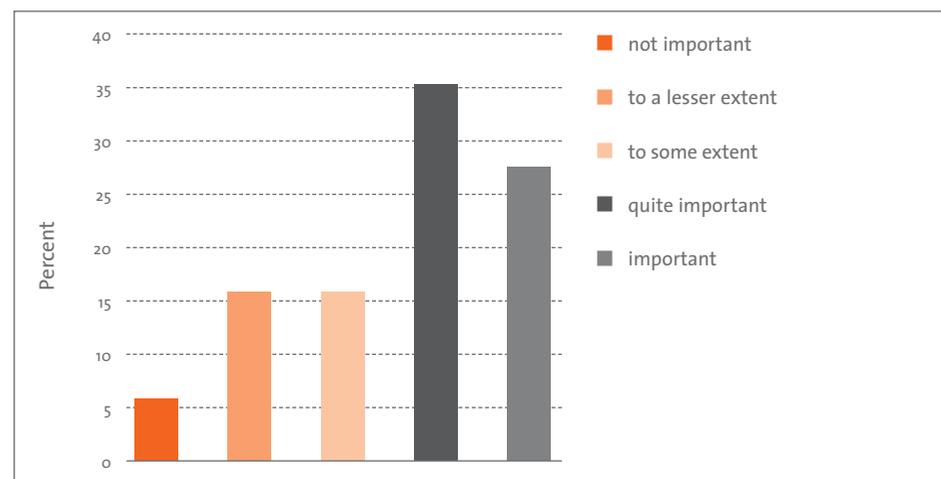


Figure 3: Importance of an IT architecture for cross-organizational collaboration

of the participants are to some extent familiar with the concept of service-orientation, nearly 69% are familiar to some extent with the SOA concept. However, the concept of service-oriented collaboration is only known to 31% of those surveyed. The question regarding the implementation status shows that almost one third of the participating banks plan a SOA implementation, currently perform an implementation, or have already implemented a SOA.

Thus, the results provide an indication that the subject SOA is more than just hype for the German banking industry. Regarding the high percentage of banks currently active in this area, the question if the SOA paradigm has got an impact on the German banking industry should most likely be answered with “yes”.

SOA is crucial in order to support cross-organizational collaboration. Without the adop-

tion of SOA, the competitiveness of banks will be reduced.

References

Channabasavaiah, K.; Holley, K.; Tuggle Jr., E.: Migrating to a Service-oriented architecture Part 1. IBM DeveloperWorks, 2003.

Erl, T. : Service-Oriented Architecture: Concepts, Technology, and Design. Prentice Hall, Upper Saddle River, USA, 2005.

Krafzig, D.; Banke, K.; Slama, D.: Enterprise SOA: Service-Oriented Architecture Best Practices. Prentice Hall, Upper Saddle River, USA, 2004.

* IBM Global Business Services

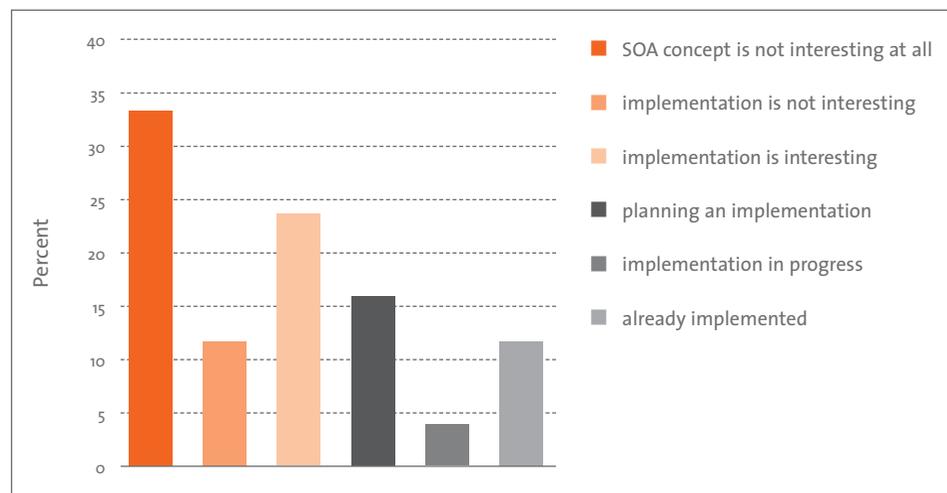


Figure 2: Current state of SOA adaptation in German banks¹ (1no multiple nominations possible)

Profitable Search Engine Marketing for Financial Services

ON THE INTERNET, SEARCH ENGINES INFLUENCE THE BEHAVIOR OF AN INCREASING PART OF CUSTOMERS. BANKS MAKE USE OF SEARCH ENGINES TO PROMOTE PRODUCTS BY USING KEYWORD AUCTIONS TO PURCHASE A PLACE OF THEIR ADVERTISEMENTS IN THE SPONSORED SEARCH LISTINGS. WE DESCRIBE HOW TO BID IN KEYWORD AUCTIONS AND HOW TO MEASURE THE SUCCESS OF SEARCH ENGINE MARKETING.

EVA GERSTMEIER
BERND SKIERA

TANJA STEPANCHUK

Introduction

Nowadays, 20% of German Internet users make use of search engines to find financial products or services. Not surprisingly, the financial services industry plays an important role in the market for search engine marketing (SEM). SEM is a popular, well measurable pay per click marketing instrument, where advertising space is sold dependent on the searched keyword. It is also called pay per click advertising, paid search or sponsored search marketing. In 2006, German expenditures for SEM were 710 Mio. €, one fifth of these (8.6% of the total online marketing) was spent by the financial services industry (OVK Online-Report 2006/2). This article describes how to best bid in keyword auctions and how to measure success of search engine marketing.

Search Engine Marketing in the Financial Services Industry

SEM works as follows: A consumer types a keyword, e.g., “payday loan”, into a search engine. He will receive two types of results (see Figure 2). One part of the screen, the lower part on the left, shows the “unsponsored search results”. The ranking of these results are determined by the search algorithm. The other part, the one on the top and on the right side, presents the “sponsored search results”. Financial service institutes need to pay for the displays in the “sponsored search results”, which are considered as ads. We concentrate on those ads. By clicking on one of the ads, the consumer is directed to the advertising financial service institute’s landing page, which provides further information about the keyword, such as

payday loans, and an opportunity to act (e.g., to buy or to register).

At the same time the advertiser pays the search engine provider for the click on the ad of the consumer. The price per click is a result of a keyword auction, in which search engine providers ask advertising companies, e.g., financial service institutes, to submit a bid for a keyword with the price they are willing to pay for each click on the ad (also called “maximum cost per click”). Figure 1 mirrors that those bids are the highest for keywords that are of interest for insurance companies

and financial services. On average, financial service institutes, e.g., banks, pay a price of 2 € for each click of a consumer.

The search engine then weights those bids by so-called quality scores. The specific calculations for those scores are not published, but are essentially determined by the keyword’s click through rate, that is the percentage of users searching who click on the displayed ad, and the ad text relevance. The weighted bids determine the ranks of the ads in the “sponsored search results” accordingly.

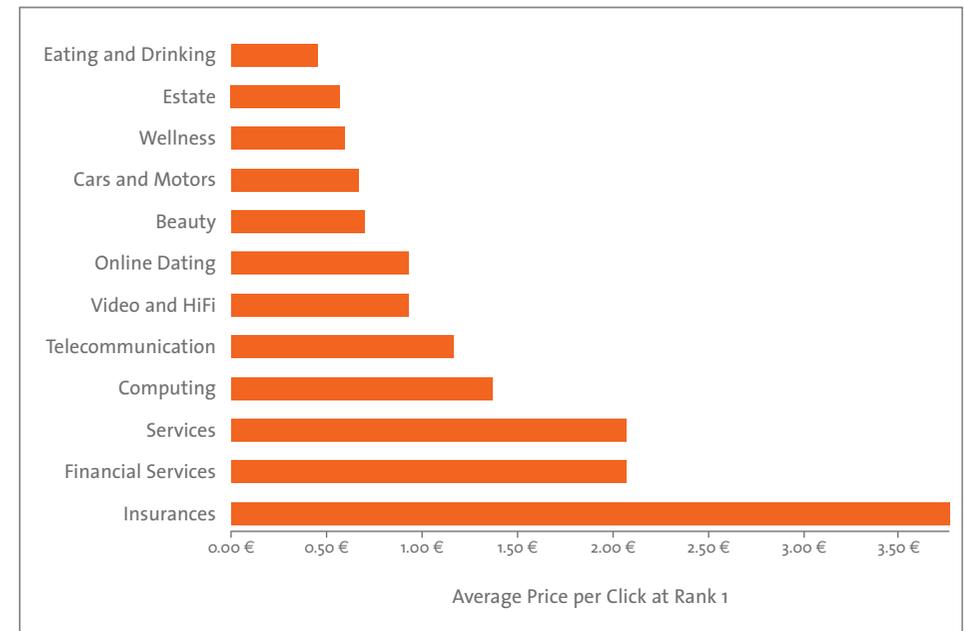


Figure 1: Average Price per Click at Rank 1 in Different Industries on February 2007
(Source: Department of Electronic Commerce, University of Frankfurt)

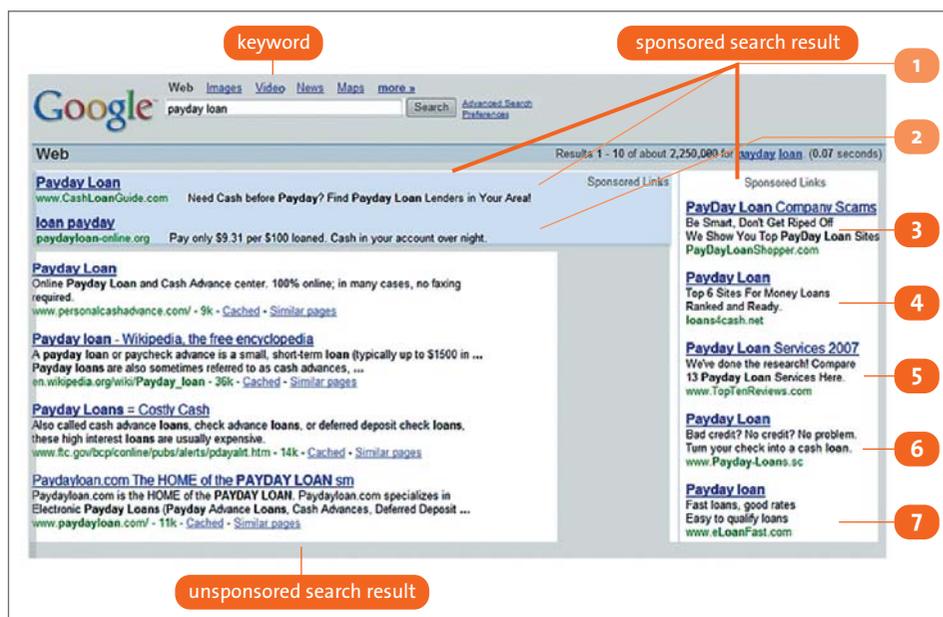


Figure 2: Search Results in Google

Figure 2 displays two ads on top of the unsponsored search results (ranks 1 and 2) and five ads on the right side of the screen (rank 3-7). Ads on the top ranks are usually more attractive for financial institutes because they lead to more awareness, consequently more clicks and thus very likely more customers. However, the prices per click for those ranks are also higher. These effects require financial service institutes to tradeoff between the number of acquired customers and the acquisition cost per acquired customer.

Profitable Search Engine Marketing

The costs of SEM should be regarded as acquisition costs. To ensure the profitability of SEM, the costs per acquired customer have to be smaller than the expected return. Financial service institutes can measure the success of search engine marketing by the change in customer lifetime value and the additional number of acquired customers. The product of both, minus the corresponding acquisition costs, reflects the change in customer equity, which should serve as the central measure of success for SEM. Increases in customer lifetime value allow for higher acquisition

costs per customer, consequently higher bids for keywords, and hence higher position of the ad in the “sponsored search results”.

The number of acquired customers per keyword is computed by the clicks per keyword times the conversion rate, which is the share of consumers who clicked on the ad and finally bought the product. The number of clicks per keyword is the number of users searching times the click through rate. The average acquisition cost per acquired customer is the average price for the click divided by the conversion rate.

For example, if we assume 5,000 users searching for the keyword of a bank “payday loan” with an average lifetime value per customer of 100 €, an average bid for this keyword of 2.00 €, a conversion rate of 5%, and a click through rate of 8%, then the costs per acquired customer are 40 €. 400 users click on the ad. Consequently, the bank acquires 20 customers and increases customer equity by 20 (100 € - 40 €) = 1,200 €.

Bidding Decision Problem in Search Engine Marketing

SEM campaigns frequently contain more than a thousand keywords. Due to the number of keywords as well as the uncertainty and complexity of keyword auctions, SEM managers frequently follow rather simple bidding guidelines for campaigns such as “always be among the top 3 ranks” or “never pay more than 2.00 € per click”.

Such bidding guidelines are dangerous because they do not aim at maximizing the profitability of a marketing campaign and easily result in suboptimal bids. Higher bids result in top ranks which consequently generate more clicks and very likely more customers. However, the prices per click for those ranks are also higher. Again, that requires to tradeoff between the number of acquired customers and the acquisition cost per acquired customer. Our research shows that the most profitable bidding strategy differs significantly between keywords. To show how big those differences between keywords might be, we present some results for a marketing campaign on “payday loan” for which we assume an average lifetime value of 300 € per customer. Figure 3 shows the prices per click for two keywords related to a marketing campaign that aims at selling payday loans using the Yahoo! Germany open keyword auction in January 2007: Top ranks in the “sponsored search results” of Yahoo! for the keyword “instant payday loan” were much more expensive (2.91 € at rank 1) than for the keyword “online payday loan” (1.56 € at rank 1).

Assuming that 1% of all clicks convert into new customers, a bid of 2.91 € for the keyword “instant payday loan” generates the highest number of acquired customers, but also leads to the highest acquisition costs of 309.04 € per customer. These acquisition costs exceed the return,

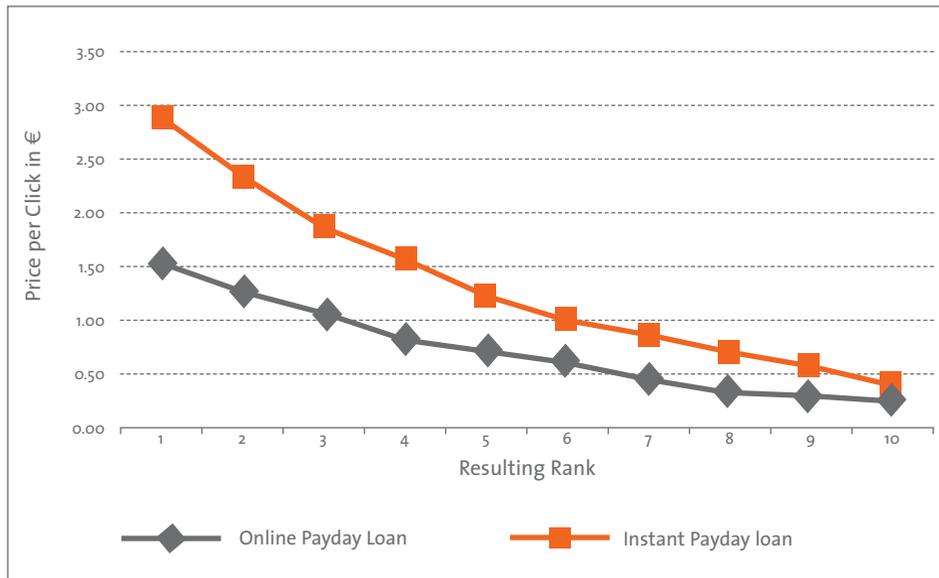


Figure 3: Differences in Price per Click on Different Ranks for the Keywords “Online Payday Loan” and “Instant Payday Loan”

measured in form of the customer lifetime value of 300 €, which in turn results in a negative customer equity at rank 1. As the acquisition costs per customer decrease with bids at lower ranks, these costs at lower ranks do not exceed the given customer lifetime value, making customer equity at lower ranks positive and maximal. This effect illustrates Figure 4: the customer equity maximizing bid for the keyword “instant payday loan” is 1.22 €, which places the ad at rank 5 in the “sponsored search results”.

In the second case, rank 1 for keyword “online payday loan” is rather inexpensive,

consequently the acquisition costs per customer within all ranks are small. It makes efficient to bid 1.56 € at rank 1 in order to generate the highest number of acquired customers and to realize the maximum customer equity. The lower ranks diminish customer equity in the case of the keyword “online payday loan” (see Figure 4).

Rules for Optimal Bids

Our model for customer equity maximizing bidding behavior and our research show that banks and insurance companies should submit bids for top ranks in the “sponsored search results” only if:

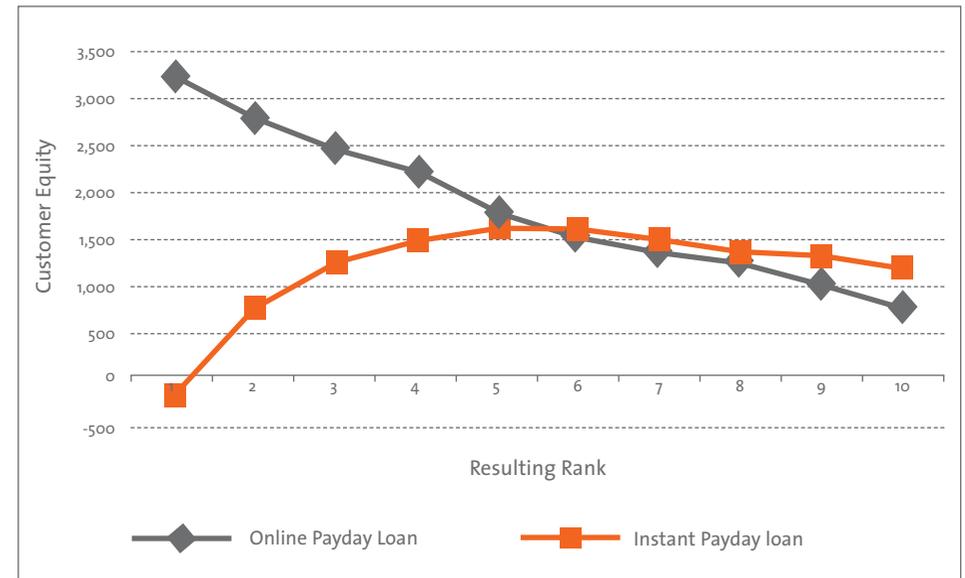


Figure 4: Customer Equity for the Keywords “Online Payday Loan” and “Instant Payday Loan”

- the profitability of the offered products, respectively of the acquired customers, is high,
- rank 1 is rather inexpensive,
- the conversion rate (the share of clicks that leads to new customers or sales of products) is high,
- the conversion rate on top ranks is not significantly lower than the one on lower ranks,
- the number of clicks on the ad strongly decreases on lower ranks.

Our research shows that optimal positions of different keywords change frequently over time. Competition sometimes raises prices for keywords to a level that makes bidding for the top position unprofitable. SEM campaign management at the keyword level is of particular importance, as simple guidelines on campaign level frequently lead to under- and overpayment and, therefore, substantial losses. Careful tracking, precise measurement, and analyses of the campaign performance are a prerequisite for successful SEM.

Banking 2.0 – The next Generation of Client Advisory

INTERVIEW WITH THE TEAM OF THE SWISS DESIGN INSTITUTE FOR FINANCE AND BANKING

The *Swiss Design Institute for Finance and Banking* (SDFB) (www.sdfb.ch) is a joint initiative between the renowned Swiss Universities ETH Zurich, University of Zurich, University of St. Gall, and the University of Applied Sciences and Arts Zurich. The focus of the SDFB's applied research lies on The Art of Advice [quote by Peter Wuffli, CEO UBS] and particularly on the question on how the quality of satisfying and value generating *bank client relationships* can be improved by digital and interactive technologies.

Prof. Buurman, you are launching a competence center for the Swiss banking industry. What research topics will the SDFB cover?

Enhancing the value of an exceptional quality in client advisory is a great challenge for the Swiss financial center. The SDFB's research will assure Switzerland's high standing in this field by developing visions, practical strategies, and tangible prototypes. The exploration of new participatory, dialogical, and accrual interaction and communication models defines the SDFB's main research focus. Zurich – as the European center of

gravity in the fields of banking, science, and design – is a predestinated place for this interdisciplinary initiative, which certainly is exceptional throughout the world.

Mr. Schwitter, to what extent does the SDFB differ from well-known initiatives such as the E-Finance Lab?

The application of interactive technologies to improve the service quality of the client advisory in Private Banking and Wealth Management is an internationally untouched and unexplored research field. Our concepts and prototypes will primarily focus on the requirements, the expectations, and the accomplishments of the user and less on the potential future technologies provider. User Centered Design methods as well as the hands-on character of our results based on empirical scientific knowledge express a further unique selling proposition of the SDFB.

Dr. Kruse, the institution is still in the foundation process. When does the SDFB start its research activity?



(from left to right) Prof. Dr. Hans Geiger, Professor for Finance, Swiss Banking Institute, University of Zurich; Dipl. Des. Lukas Schwitter, Research Assistant, Interaction design, University of Applied Sciences and Art Zurich; Prof. Dr. Gerhard Buurman, Professor for Interaction Design, University of Applied Sciences and Art Zurich; Dr. Christian Kruse, Research Fellow, Head of Swiss Financial Centre Watch, Swiss Banking Institute, University of Zurich

We aim to achieve an institutional foundation by the late summer 2007. We are currently working on the financial plan, the legal form of the organization, and the strategic partnerships on one hand. On the other hand we have already started at the beginning of 2007 our first research projects together with our industry and academic partners. As an example, the SDFB is developing in cooperation with the Swiss private bank Maerki Baumann & Co AG a prototype of an interactive advisory table. The focus lies on a traditional advisory situation in the premises of a bank where the interactive table should support both the advisor and the client by designing a personalized portfolio strategy.

Prof. Geiger, what can you tell us about the intended structure of the SDFB?

Our plan is to launch the SDFB as an independent organization with a strong connection to the participating universities. In terms of our legal form of organization we head for an association. This form is, by Swiss law, a flexible solution in which persons and institutions can follow collective interests under a particular name. These interests can be of a charitable, academic, as well as an economic nature. The Zurich Wealth Forum for example, which organizes a yearly conference on Private Banking, is constituted as a Swiss association. Members are universities, public institutions, other associations, and banks.

Thank you for the interesting conversation.

news

Nomination of Prof. Dr. Gomber

Prof. Dr. Peter Gomber (Cluster 5) has been nominated as member of the expert group of the Finance Committee-German Bundestag regarding the German MiFID transposition law (Finanzmarkt-Richtlinie-Umsetzungsgesetz).

Awards

Dipl.-Wirtsch.-Inf. Kim Wüllenweber, Managing Consultant at IBM Global Business Services, works in the cooperative PhD-program of the E-Finance Lab at his dissertation thesis "Risk Mitigation in Business Process Outsourcing". End of February, 2007, he received the "Best Young Researcher Award" for his paper "The Interplay of Outsourcing Risks and Benefits" at the Internationale Tagung Wirtschaftsinformatik 2007 in Karlsruhe.



The article "Strategic Decisions regarding the Vertical Integration of Human Resource Organizations of Financial Services Firms and Industry Companies" by Mark Wahrenburg, Andreas Hackethal, Tom Gellrich, and Lars Friedrich, recently published in The International Journal of Human Resource Management, was awarded "Citation of Excellence". This award was granted to the top 50 management research articles published by Emerald Publishing in 2006. Oliver Bosch and Sascha Steffen received the "Best Paper in International Finance Award" with their paper "Informed Lending and the Structure of Loan Syndicates – Evidence from the European Syndicated Loan Market" at the Southwestern Finance Association Annual Meeting in San Diego in March 2007.

Team members

Since 01.01.2007, Dipl.-Kfm. Gregor Pujol is supporting the team of Cluster 5 as a research assistant in the cooperative PhD-program (IBM).

Cooperation with London Business School and Baruch College City University New York

In cooperation with the Baruch College City University New York (CUNY) and the London Business School, Cluster 5, headed by Prof. Dr. Gomber, organizes the Market Microstructure Seminar "Teaching Microstructure in Business School Programs" (date: June 15 & 16, 2007; venue: Deutsche Börse, Frankfurt-Hausen).

selected E-Finance Lab publications

Berbner, R.; Spahn, M.; Repp, N.; Heckmann, O.; Steinmetz, R.:

QoS-aware Replanning of Web Service Workflows. In: IEEE International Conference on Digital Ecosystems and Technologies (DEST 2007). Cairns, Australia, 2007.

Berger, S.; Gensler, S.:

Evaluating customer management implementations. In: Proceedings of the IIMA Conference on Research in Marketing 2007. Ahmedabad, India, 2007.

Bosch, O.; Steffen, S.:

Informed Lending and the Structure of Loan Syndicates – Evidence from the European Syndicated Loan Market. In: Southwestern Finance Associations Annual Meeting. San Diego, USA, 2007.

Fritsch, M.; Gleisner, F.; Holzhäuser, M.:

Bank M&A in Central and Eastern Europe. In: Midwest Finance Association, 56th Annual Meeting. Minneapolis, Minnesota, USA, 2007.

Gensler, S.; Dekimpe, M.; Skiera, B.:

Evaluating channel performance in multi-channel environments. In: Journal of Retailing and Consumer Services 14 (2007) 1, pp. 17-23.

Gewald, H.; Franke, J. (†):

The Risks of Business Process Outsourcing: A Two-Fold Assessment in the German Banking Industry. In: International Journal of Electronic Finance (IJEF) 1 (2007) 4, pp. 420-441.

Gomber, P.; Groth, S.:

Algorithmic Trading – Trends and Impact on the Exchange Industry. In: Focus no. 166, December 2006, World Federation of Exchanges, 2006, pp. 48-52.

Jansen, C.; Hackethal, A.:

How to meet private investors' advisory needs: In: Midwest Finance Association, 56th Annual Meeting. Minneapolis, Minnesota, USA, 2007.

Petersen, O.; Pujol, G.:

Wie lässt sich die MiFID für neue Geschäftsmodelle nutzen? In: Zeitschrift für das gesamte Kreditwesen (2007) 1, pp. 11-13.

Repp, N.; Schulte, S.; Eckert, J.;

Berbner, R.; Steinmetz, R.:

Service-Inventur: Aufnahme und Bewertung eines Services-Bestands. In: Workshop "MDD, SOA und IT-Management 2007". Oldenburg, Germany, 2007.

Wüllenweber, K.:

The Interplay of Outsourcing Risks and Benefits. In: Internationale Tagung Wirtschaftsinformatik (WI 2007). Karlsruhe, Germany, 2007.

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

www.efinancelab.de/results/pubs/index.php

research outside the E-Finance Lab

RESEARCH PAPER: A LONGITUDINAL ANALYSIS OF CUSTOMER SATISFACTION AND SHARE OF WALLET: INVESTIGATING THE MODERATING EFFECT OF CUSTOMER CHARACTERISTICS <IN A RETAIL BANKING SETTING>

The authors find a positive and nonlinear relationship between customer satisfaction and share of wallet which is negatively moderated by customers' income and length of the relationship. The key implication is that managers should not simply strive to improve reported satisfaction levels without an understanding of the relationship to customers' share of wallet allocations. Furthermore, the ability to manipulate share of wallet demonstrates that many, if not most, customers have relationships with multiple retail banks rather than an exclusive relationship with one individual retail bank. Hence, customers are more likely aware of competitors' offerings and have some level of interaction with competing retail banks. Consequently, changes in service levels that affect the level of customer satisfaction can more easily result in the inflow or outflow of money to the bank.

Cooil, Bruce; Keiningham, Timothy L.; Aksoy, Lerzan; and Hsu, Michael
In: *Journal of Marketing* 71 (2007) 1, pp. 67-83.

RESEARCH PAPER: PRINCIPAL BID VS. AGENCY TRADING <OF SECURITIES>: STRATEGIES AND COSTS

Bystrik and Georgiou analyze the estimated costs of agency versus principal bid trading. When executing trades via an agency broker, the client is charged with commission and fees while running the risk of market volatility, hence the probability for profit or loss. The principal broker, in contrast, absorbs clients' orders on a fixed-charge basis and guarantees a certain execution benchmark, e.g. the closing price or the volume weighted average price (VWAP). As both agency and principal brokers access similar trading tools and liquidity, the risk premium paid to the principal broker will usually result in the principal's cost being higher than the expected agency cost, while at the same time profiting from the principal broker beating the benchmark is impossible. By analyzing trading costs on an annualized basis (which is the basis on which fund returns are measured), Bystrik and Georgiou demonstrate that the higher risk premium may seem worth paying for an individual, zero-risk trade but that agency trading can offer significant savings over principal trading.

Bystrik, Anna; and Georgiou, Aki
In: *Journal of Trading* (2006) 4, pp. 6-13.

RESEARCH PAPER: THE EFFECT OF SERVICE EMPLOYEES' TECHNOLOGY READINESS ON TECHNOLOGY ACCEPTANCE <SURVEY WITH 810 EMPLOYEES FROM A LARGE FINANCIAL SERVICE PROVIDER>

As much of the work of service employees is supported by information technology (IT), the quality of the service often depends on how the technology is used. Most employees only use a fraction of the functionality available on their desktop. This may also depend on their personality. The article presents the results of a survey with 810 employees from a large financial services provider on the relationship between four personality trait dimensions – optimism, innovativeness, discomfort, and insecurity – and individual acceptance of IT. The analysis shows that these dimensions significantly impact employees' perceptions of ease of use and usefulness of IT. The authors conclude that simply providing employees with IT plus standard training sessions may not be sufficient to gain full benefit from the investment. Rather, managers need to adopt flexible strategies on how to stimulate use of the IS by employees, based on their personalities.

Walczuch, Rita; Lemmink, Jos; and Streukens, Sandra
In: *Information & Management* 44 (2007) 2, pp. 206-215.

electronic newsletter

The E-Finance Lab conducts two kinds of newsletters which both appear quarterly so that each six weeks the audience is supplied by new research results and information about research in progress. The focus of the printed newsletter is the description of two research results on a managerial level – complemented by an editorial, an interview, and some short news. For subscription, please send an e-mail to eflquarterly@efinancelab.com or mail your business card with the note "please printed newsletter" to

*Prof. Dr. Wolfgang Koenig, E-Finance Lab,
Frankfurt University,
Mertonstr. 17, D-60054 Frankfurt, Germany.*

The Internet-type newsletter uses short teaser texts complemented by hyperlinks to further information resources in the Internet. To subscribe, please send an e-mail to

newsletter@efinancelab.com.

Further information about the E-Finance Lab is available at www.efinancelab.com.

