

efl quarterly

04 | 2010

AN E-FINANCE LAB PUBLICATION

e**finance**lab

at the HOUSE OF FINANCE

Majority of Bank Customers in
Germany do Research Online

Private Equity – Blessing or Curse?
The case of IPOs

State-of-the-Art IT Architecture
Paradigms and their Impact on
the German Financial Industry

Strategic Personal
Financial Management



Management
& Technology
Consultants

Deutsche Bank



DEUTSCHE BÖRSE
GROUP

DZ BANK Gruppe

finanz informatik

IBM

..T..Systems

ESOT
TRADING NETWORKS

DAB bank
Die DirektAnlageBank

Interactive Data

GOETHE
UNIVERSITÄT
FRANKFURT AM MAIN



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Impressum

Redaktion
Prof. Dr. Peter Gomber
Dipl.-Wirtsch.-Inform. Michael Chlistalla
Dipl.-Wirtsch.-Inform. Dieter Schuller

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

Kontakt
info@efinancelab.com
www.efinancelab.com

Gestaltung
Novensis Communication GmbH
Bad Homburg

4. Ausgabe, 2010
Auflage 1.500 Stück

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

Printed in Germany
ISSN 1866-1238

Editorial

Majority of Bank Customers in Germany do Research Online

Thomas Meyer



Dr. Thomas Meyer,
Senior Economist,
Deutsche Bank
Research,
Technology and
Innovation

It is easy to underrate the importance of the internet in modern retail banking because most sales still take place in a bank branch. While the online channel has grown rapidly over the last few years, it still accounts for only 10.8% of sales – simple products such as short-term deposits or credit cards being the most popular choice. Yet, the internet

has a much bigger role than previously thought. In fact, a new study, produced jointly by GfK, Google and Deutsche Bank Research, finds that online research precedes almost 60% of all new financial purchases by German banking clients.

This study is the first that combines extensive questionnaires from a long-running panel with diligent monitoring of actual internet traffic. Thus it is possible to relate new financial purchases and the motivation behind them (as reported in the questionnaires) to the way

clients do research on the internet (as recorded from their private browsers). Around 5,000 households have volunteered to take part in both surveys. The data is being collected and handled by GfK in an anonymized form; neither Google nor Deutsche Bank have access to personal data.

The study underlines the fundamental role the internet already plays today. A majority of banking clients use it as a source of information, to compare terms and conditions with competitors and to stay abreast of events. Only looking at online sales underrates the internet severely.

The results of this new study are stunning in many ways. Firstly, they allow us to quantify the so-called ROPo effect (research online, purchase offline) which describes clients who research financial information online but purchase banking products by offline means – typically in a branch. According to the data, this ROPo effect applies to 48.6% of sales. Add to this the share of sales that is researched and purchased purely online (10.8%) and online research precedes a total 59.4% of all sales. Thus the internet shapes the decisions of a

majority of clients, of which most end up closing the deal in a bank branch.

Secondly, the study provides deeper insights into the online research process itself. On average, online researchers start 7½ weeks before buying a new financial product. They visit 43 relevant internet sites and run 11 search queries with Google. Yet, these averages mask a great divergence in usage patterns. Users typically devote 1 hour and 11 minutes per quarter to financial research online. But a quarter of them only spend less than five minutes.

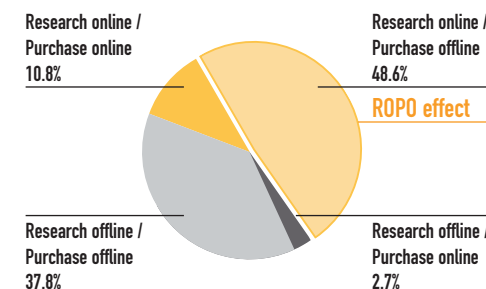
Search engines are the most important independent source of information. More than 36% of German online researchers use Google to run a relevant search query. No other independent source of information has a wider reach. Moreover, using Google indicates a much more intensive research process: Google users visit twice as many domains as other surfers.

Online researchers most often rely on brand names to guide them in finding relevant information: 73.1% of all financial search queries consist solely of brand names (e.g. “Deutsche Bank”). This underlines the strong relation between clients and banks. Generic terms (e.g. “Tagesgeld” for instant access savings) make up only 24.5% of all searches. Online researchers

who actually buy a new product use generic queries or hybrids more frequently, indicating a more explorative approach, but brand names remain in the majority with a share of 60.8%.

Online channel shapes business

Sales of financial products by research and purchase channel



Source: GfK, Google, DB Research, 2010

The internet will gain further importance in the future. Online sales will become easier to handle and more widespread. Moreover, an even larger share of clients will do research online – often fusing online research with offline purchases. Providing clients with top-notch advisory services – online, offline and in combination – will remain a key instrument for banks to attract and retain clients.

The full study is available for download here:

<http://www.dbresearch.de/ropo>

Research Report

Private Equity – Blessing or Curse?

The case of IPOs

WE STUDY WHETHER PRIVATE EQUITY (PE) FIRMS HAVE A POSITIVE IMPACT ON THE FINANCIAL PERFORMANCE OF THEIR GERMAN PORTFOLIO COMPANIES BEFORE AND AFTER THE IPO. OUR EMPIRICAL ANALYSIS IS BASED ON A UNIQUE AND LARGE DATASET OF ALL IPOS IN GERMANY BETWEEN 2000 AND 2007. WE FIND THAT PE FIRMS SELECT COMPANIES WITH BELOW AVERAGE PERFORMANCE AND THEN IMPROVE PERFORMANCE SUBSTANTIALLY UNTIL THE IPO DATE AND IN MANY CASES ALSO THEREAFTER. THIS IMPLIES THAT PE FIRMS FILL A VOID ALSO IN GERMAN FINANCIAL MARKETS AND THAT THEY WILL ALSO PLAY A FUTURE ROLE IN FINANCING GERMAN ENTERPRISES.

Andreas Hackethal
Christian Rauch

Timo Litty
Mark Wahrenburg

Introduction

Private Equity (PE) firms exert more control over their portfolio companies than most other financial intermediaries. For example, they give strategic guidance, advise their firms on the management team and financial matters and get involved in restructuring activities. Their goal is to increase the value of the portfolio companies and thus to produce superior returns for their own investors (Barry et al., 1990). This value creation can only be realized at the “exit”, i.e. the event at which the PE firm sells off its stake in the respective portfolio company. One of the most profitable and consequently most desired exits is taking the portfolio firm public through an Initial Public Offering (IPO). Selling the shares of an IPO company into the primary

stock market usually results in large profits for the initial shareholders as IPO shares can be sold into the market at a premium over their pre-IPO value. A rule of thumb therefore suggests that the more profitable the IPO company and the more promising the company’s financial future prospects according to its equity story, the higher the price at which the shares can be sold into the market. A PE firm therefore has large incentives to maximize the profitability of its portfolio company around the IPO date. However, although the interests of PE investors and the IPO companies’ management should be largely aligned – increasing profitability and equity value – the PE investor might have additional objectives that can be detrimental to the other stakeholders of the company.

For one, PE investors usually strive to exit their investments at around five years after making the investment. This “deadline” must often be met to generate payouts for the PE funds’ investors, disregarding possible future value increases in the portfolio companies.

Second, a PE firm can benefit from stripping a potential IPO company off certain assets before the IPO to generate pre-IPO returns for its investors, e.g. through extraordinary dividend payments. Disclosure requirements and shareholder or analyst pressure of a public company only allow for these kinds of transactions to be made before the IPO. A PE-backed IPO company might hence be deprived of a best possible performance at the time of the IPO due to these transactions.

And third, PE investors are often accused of boosting short-term profitability at the expense of economically healthy long-term value growth. Following this idea, PE investors might take their portfolio companies public prematurely, based only on short-term artificial growth, e.g. through the sale of valuable assets or one-off balance sheet transactions (Jain and Kini, 1994). These three allegations against PE investors stand in contrast to the initial remark – and empirical fact – that PE firms do create value for their portfolio companies and consequently also for the companies’ other investors. Against the background of these arguments, we compare in our paper the financial performance of IPO companies with and without PE investors at the time of the IPO.

Industry	No.	%	Avg. Age [years]	Avg. Issue Volume [€ Mio.]	# PE-backed IPOs	Length PE-backing [years]
Construction	2	0.81	125	94	1	10
Chemicals	4	1.62	62.3	731	2	3.5
Energy / Commodities	2	0.81	14.5	149	0	0.5
Financial Services	29	11.74	38.1	388	6	4.5
Commerce / Trade	9	3.64	18	152	4	4.3
Industrials	51	20.65	27.9	136	24	2
Consumer Goods	7	2.83	24.4	55	1	2
Media	21	8.50	11.3	253	8	0.6
Pharma / Healthcare	28	11.34	11.9	60	22	2.7
Software	60	24.22	10.5	96	31	1.4
Technology	18	7.29	18.8	1,260	6	2.3
Telecommunications	7	2.83	3.7	1,100	3	1.5
Transport / Logistics	9	3.64	39.8	1,880	2	1.5
Total / Average	247	100	31.3	489	110	

Table 1: Descriptive overview of the sample of 247 IPOs in Germany over the period 2000–2007

Methodology

The goal of our analysis is to answer the question: Do PE-backed companies have a better financial performance than non-PE-backed companies at the time of an IPO? We are able to answer this crucial question regarding the role of PE as a financial intermediary as we base our analyses on an extensive and unique hand-collected dataset of 247 IPOs in Germany over the period 2000 to 2007. Table 1 shows descriptive statistics on the characteristics of the IPOs and outlines the situation in the IPO market during the period covered by our dataset. The results of our analyses are particularly relevant for the role of PE but also for the importance of financial intermediaries in general.

To answer the question raised above, we first need to define how to measure financial performance. We use a total of four balance-sheet based proxy variables to represent performance. The variables are Return on Assets (RoA), Return on Sales (RoS), Cash Flow on Assets (CFoA) and Cash Flow on Sales (CFoS).

We use Propensity Score Matching in order to overcome a possible selection bias induced by the PE company's choice of targets.

Based on the matched data set, various statistical tests are performed in order to answer the question whether or not PE-backed companies perform differently compared to their non-PE backed counterparts in terms of the performance measures given above.

We find significant differences between those two groups and run several regression analy-

	Return on Assets			Return on Sales			Cash Flow on Assets			Cash Flow on Sales		
	PE	Non-PE	Diff.	PE	Non-PE	Diff.	PE	Non-PE	Diff.	PE	Non-PE	Diff.
1) IPO date	-.0856	-.0508	.0347	-2.9%	-.2770	2.69***	-.0977	-.0406	.0571***	-.9171	-.1624	.7552***
2) Avg. 5 yrs	-.2597	-.1719	.0877**	-1.9%	-.0795	1.86***	-.0970	-.0204	.0766***	-.6476	-.1910	.4560***
3) Increase 5 yrs	.4118	-.1462	.5581***	2.08	-.4524	2.54***	.0441	-.0728	.1169***	.2377	.3730	-.1353

Table 2: For each time period and variable we report the mean at the IPO date, the mean over the entire five year period surrounding the IPO and the absolute change over the five year period. The differences (PE – Non-PE) between the groups are given by t-tests.

ses in order to detect the causes for this heterogeneity. Thereby, we control for several variables and conduct robustness checks to control for the impact of corporate governance structures, the dotcom bubble and its aftermath, differences between Venture Capital and Buy Out investments, as well as the temporal development of the two groups' performances.

Results and Conclusion

Table 2 gives the results of the standard difference-in-mean-tests. The three rows of the table summarize what we also find when we conduct more complex analyses in our paper:

1) On the IPO date, PE-backed companies have a lower financial performance than non PE-backed companies. For each of the performance measures, the mean of the non-PE variable is higher than its PE-backed counterpart. This difference is statistically significant for three of the four profitability measures.

2) Averaged over the entire observation period of five years (where the IPO date is

always right in the middle), PE-backed firms also trail non PE-backed firms in terms of performance.

3) However, when looking at the change in performance over the five-year period (measured as difference between year 5 and year 1 in the third row) we find that PE-backed companies increase profitability whereas average profitability of non-PE-backed companies actually declines for the first three measures.

We thus conclude that PE companies create value by selecting firms with below average performance and by improving their performance substantially until and also beyond the IPO date. Furthermore, we give support to the certification hypothesis which suggests that PE companies ensure a high quality of their targets so that they can tap primary capital markets at an early point in time (Megginson and Weiss, 1991).

Moreover, our results are consistent with the window dressing theory, which posits that

PE-backed companies have less incentives to whitewash the financial statement of their portfolio companies. The major reason is that PE companies would risk their reputation if window-dressing were detected, which would significantly reduce the income from any future IPO.

References

- Barry, C.; Muscarella, C. J.; Peavy, J. W.; Vetsuypens, M. R.:**
The Role of Venture Capital in the Creation of Public Companies.
In: Journal of Financial Economics 27 (1990), pp. 447–471.
- Jain, B. A.; Kini, O.:**
The Post-Issue Performance of IPO Firms.
In: Journal of Finance 49 (1994) 5, pp. 1699–1726.
- Megginson, W. L.; Weiss, K. A.:**
Venture Capitalist Certification in Initial Public Offerings.
In: Journal of Finance 46 (1991) 3, pp. 879–903.

Research Report

State-of-the-Art IT Architecture Paradigms and their Impact on the German Financial Industry

IN THE FINANCIAL INDUSTRY, INFORMATION TECHNOLOGY (IT) IS AN IMPORTANT BUSINESS ENABLER. THIS ARTICLE PRESENTS THE APPROACH AND FIRST RESULTS OF A MULTI-PARTICIPANT CASE STUDY TO DETERMINE THE STATUS QUO OF SELECTED IT ARCHITECTURE PARADIGMS AND THEIR IMPACT ON THE FINANCIAL INDUSTRY.

Ulrich Lampe
Dieter Schuller
Ralf Steinmetz

Melanie Siebenhaar
Ralf Schaarschmidt*

Introduction

With the increasing amount and importance of information in business processes, IT is no longer a “supporting actor”, but rather a crucial enabler for economic success. This is especially true for the financial industry, where IT has not only created new back office and front office capabilities in recent years, but has also led to significant reductions in operational cost (Berger, 2003; Ho and Mallick, 2010). Due to these facts, we are currently performing a multi-participant case study that examines contemporary approaches to IT architectures in German financial institutions. Our objective is to evaluate the interaction between business and IT and to assess the impact of state-of-the-art IT architecture paradigms on this relation.

Organization of the Study

To date, we have conducted interviews with four representatives from two organizations. Both organizations are private German banks with more than 10,000 employees globally. The interviewees from the first organization hold leading positions in the IT infrastructure group of their company, while the interviewees from the second organization are enterprise architects. This article presents our key findings to date. Further interviews are planned for the next months in order to validate and extend the results. The basic structure of our case study is summarized by the research framework in Figure 1, which also served as guideline for creating the interview questionnaire. The framework is divided into two major cate-

gories. The first category deals with IT architecture in general and addresses the two aspects of IT architecture as a task (i.e., the procedures involved in creating an IT architecture) and IT architecture as a result (i.e., the outcomes of aforementioned procedures). Our focus lies on elucidating the mutual influence between business and IT. The second category deals with the status quo and impact of three specific IT architecture paradigms. Specifically, we selected *Service-Oriented Architecture (SOA)*, *Grid Computing*, and *Cloud Computing*. The objective is to assess the impact of these paradigms on the banks’ IT architectures. Figure 2 shows how the interview results were evaluated. Following the transcription of the interviews, all relevant statements were assigned codes representing individual elements of the research framework. For the actual analysis and comparison of the interviews, we applied the “Pattern Matching” method (Yin, 2003). This means that the findings of all research aspects are compared to each other and the final results are recorded in this text. A comprehensive comparison of these results with the theoretical research foundations in the form of current literature will follow once all interviews have been completed.

Case Study Findings

In the following, we will present the key results of our case study, structured along the previously outlined research aspects.

IT Architecture as a Task – While organizations are increasingly pursuing process-orientation in their IT architectures, the traditional silo

model is still structurally dominating. That is, the IT architecture is vertically organized along individual business lines or departments, rather than horizontally spanning these units. An important reason can be the lack of a centralized instance that may provide architectural guidance across business domains. In practice, the degree of cooperation between different business lines and the IT departments often depends on experiences and contacts from previously conducted projects. An additional observation is that the business architecture trails the IT architecture in terms of maturity, and processes are often best understood by the *IT side*, rather than the *business side*. The general concept of “business (architecture) driving IT (architecture)” is often inverted in practice not only due to aforementioned reason, but also because the introduction of a new technology triggers novel business opportunities (such as in the case of Grid Computing, which permitted more extensive risk analysis and potentially more complex financial products). In this context, another important perception is that certain business lines, most notably investment banking, drive the IT architecture by serving as early adopters of certain paradigms and technologies. These frontrunners subsequently create synergy effects for other business lines. The question of whether a specific business line serves as early adopter, rather than early or late follower, with respect to a certain IT architecture paradigm is largely determined by economic constraints, such as cost pressure. Because business lines at least partially pursue different agendas in terms of IT architecture, there is little evidence for neg-

ative side effects, i.e., the technological choices of one business line restricting other business lines or the whole organization.

IT Architecture as a Result – The current degree of business/IT alignment is perceived as good among our interviewees. Cost pressure and integration issues are main inhibitors to further improvement. Standards and policies comprise a substantial part of the IT architecture process. They are often determined by regulatory requirements rather than just technological considerations. Both standards and policies serve as rather abstract guidelines across *all* business lines. In contrast, the application of architectural patterns largely depends on the respective requirements of *individual* business lines. For instance, the SOA paradigm plays a significant role in the retail and investment banking sector due to its multi-channel orientation and flexibility. However, because of performance reasons, its applicability is limited in domains where real-time capabilities are required. As a consequence, selected architectural *principles* (such as loose coupling and encapsulation), rather than whole architectural *patterns*, are utilized. A big challenge in a steadily grown IT architecture is complexity. Banks are trying to alleviate this problem through increasing standardization, which subsequently leads to a more homogeneous IT landscape with a smaller portfolio of utilized products and technologies, or structured complexity management. There is agreement that the role of IT is still increasing in financial institutions, which raises the requirements towards IT flexibility and performance.

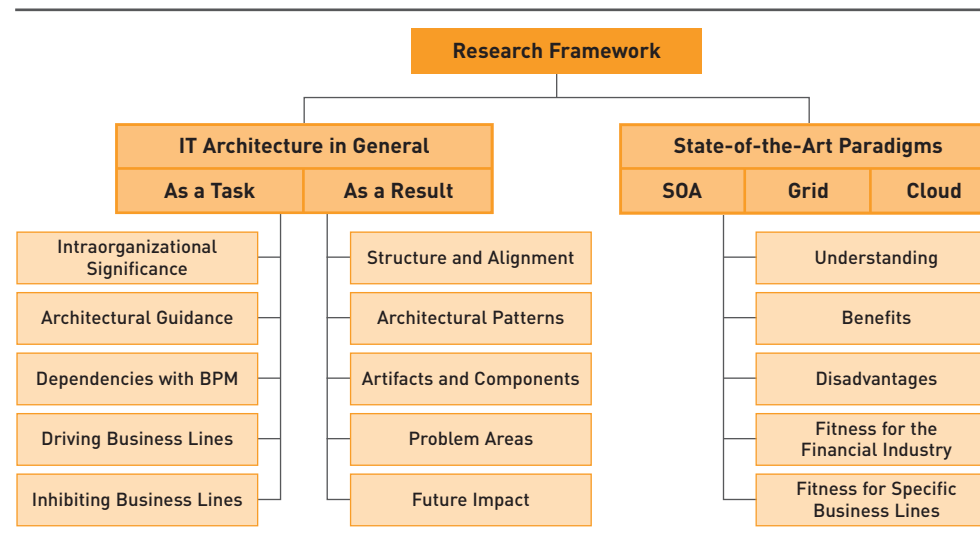


Figure 1: Research Framework of the Case Study

Service-oriented Architecture – The general notion of service-orientation has been around for more than a decade in both interviewed organizations. Encapsulation, loose coupling, the use of service contracts, and business-oriented design are seen as key characteristics. To date, SOA has been implemented in a significant share of the IT systems, mostly applying web-service technologies. SOA is generally seen as “key architecture” and indispensable concept to deal with heterogeneity in the IT landscape. However, the implementation process has not stretched to all core systems and business domains. The general applicability of SOA is limited by performance issues and existing software platforms, such as SAP ERP systems. The key benefits of SOA are seen in data consistency, redundancy reduction, and the ability to formulate service contracts. The

reduction of development time and the ability to reuse (IT) artifacts across parts of the organization are also perceived as benefits. However, contrary to our initial expectations, the actual rate of reuse for individual components (i.e., services) has not been significantly improved by the introduction of SOA. One reason may be the persisting tendency among software developers to reimplement rather than reuse existing components. This also seems to be reflected in the observation that SOA requires increased communication between service providers and service consumers. An important inhibitor to the application of SOA is seen in a lack of off-the-shelf products that implement existing SOA standards. Additional challenges concern the integration of legacy systems into an SOA. Lastly, security is an important concern. The general feeling is that the

issue has been insufficiently addressed by IT solution providers and research so far. In contrast to the essential idea of process orientation, SOA is often employed in a rather isolated, project-based manner. Thus, cost savings are hard to quantify, which makes it difficult to argue for the introduction of SOA from a cost perspective. However, it was observed that business lines which aggressively pursued SOA in the past were currently realizing benefits from it. Accordingly, the general fitness of SOA for the financial industries remains unquestioned. Notable exceptions concern business lines relying on performance-critical applications.

Grid Computing – Grid Computing has been employed by the participants of our case study for more than five years. The introduction was primarily driven by a sharp decline in hardware prices and the increasing popularity of the Linux operating system. The extension of scalability to a logical network of nodes, resulting in the possibility to parallelize and thus speed up tasks, is seen as key characteristic. A major benefit of Grid Computing concerns the possible time reduction in performing certain tasks or, alternatively, the ability to perform more complex tasks within a specific time frame. Furthermore, Grid Computing allows for easy adaptation of the IT environment to fluctuating performance demands at significantly lower costs than traditional monolithic solutions (commonly referred to as *scaling out vs. scaling up*). With respect to the hardware aspect of Grid Computing, managing and cooling many thousands of computers in a data center is seen as a practical challenge. At the same

time, the integration of existing heterogeneous resources, such as desktop computers, is found rather impractical due to a high degree of management overhead. The most important disadvantage of Grid Computing, however, concerns the fact that a special type of software application is required that can be split up into small work packages for each node. This problem is further elevated by an insufficient support for parallel programming in current software development tools. As a result, Grid Computing is specifically suited for specific application scenarios, such as extensive risk calculations within the investment banking business lines. In these domains, Grid Computing, for instance, allows for the application of more complex financial models, ultimately resulting in more competitive pricing within the market.

Cloud Computing – While Cloud Computing encompasses concepts from diverse well-developed fields of IT, the paradigm as such has gained momentum only recently. The ability to purchase computing resources, rather than providing them in-house, constitutes an important characteristic. Cloud Computing also resembles many of the features of Grid Computing, but adds a virtualization layer on top of the actual hardware systems. Cloud Computing is currently being employed by only one of the organizations in our study. The dominant aspect is the purchase of external computing resources, primarily software functionality in the form of *Software as a Service* (SaaS). Cost reductions constitute the most important benefit, because Cloud Computing

reduces the need to operate and maintain a large data center and introduces the ability to reuse existing software components. In addition, the reduction of latency can be a major benefit. If a Cloud provider has superior connectivity, e.g., with a stock exchange, this may yield significant competitive advantages in certain processes. On the negative side, security is a major concern, triggered by various laws and regulations in the banking industry. This, most notably, concerns the transmission of data across geographical boundaries and the sharing of data with external parties. An additional drawback in Cloud Computing is the inability to determine the future development and life cycle of a (software) product. Cloud Computing seems to offer significant potential to the financial industry across all business lines. However, its actual application is still complicated by security and compliance issues.

Conclusion and Outlook

In recent years, new IT paradigms have recurrently promised to alleviate various shortcomings of IT. With respect to the participants in our case study, however, it is safe to conclude that none of the included three paradigms has had *revolutionary* effects on IT architecture. Each paradigm has rather brought *evolutionary* changes. An important finding is that individual business lines, rather than the company as a whole, adopt IT paradigms based on their specific requirements. In this process, certain sections – such as investment banking – regularly serve as *frontrunners*. This has a positive impact for the technological followers within an organization. Another major finding is that

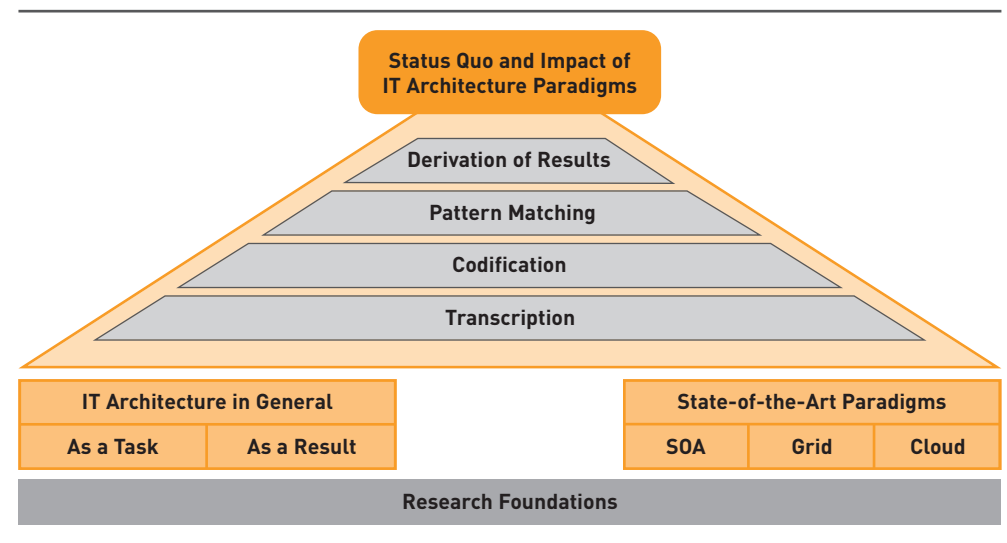


Figure 2: Methodical Evaluation Process

business lines or companies as a whole adopt selected architectural principles (such as loose coupling from SOA), rather than the complete paradigms. For that matter, it seems that the most useful parts of both SOA and Grid Computing have now been put to use by financial institutions. Cloud Computing is receiving increasing attention lately and offers significant potential to the financial industry, given that the security and compliance concerns can be efficiently addressed.

The findings presented in this report will be further validated and extended in additional interviews in the next months. Additionally, an extensive comparison with the research foundations will be conducted and best practices will be inferred from our findings.

References

Berger, A. N.:

The Economic Effects of Technological Progress: Evidence from the Banking Industry. In: Journal of Money, Credit, Banking 35 (2003) 2, pp. 141–176.

Ho, S. J.; Mallick, S. K.:

The Impact of Information Technology on the Banking Industry: Theory and Empirics. In: Journal of the Operational Research Society, 61 (2010) 2, pp. 211–221.

Yin, R. K.:

Case Study Research. SAGE Publications Inc., Thousand Oaks, United States of America, 2003.

Insideview

Strategic Personal Financial Management

INTERVIEW WITH KARSTEN SCHULZ



Dr. Karsten Schulz,
Vice President,
SAP Research

The global financial crisis and its repercussions have put millions of individuals and families under pressure with a combination of a drop in housing prices, fluctuating interest rates and loss of income. Consumers are now more aware of the need for long-term, strategic financial planning.

What are the key challenges in strategic personal financial management?

The objective of strategic financial management is to grow and protect the wealth of customers to meet their current financial needs and future lifestyle objectives. 'Personal' in financial management means that individuals can periodically ascertain and review their objectives and current financial position. The results of this strategic planning exercise can be integrated into the budget. Income, expenses and investment forecasts can be simulated and translated into quantifiable options that can be acted upon.

One of the challenges is that the cost of financial assistance to provide satisfactory personal financial management to customers has typically been very high. Consequently, consumers are starting to look beyond the banks' financial management offerings. Results from surveys conducted in Australia, for instance, indicate that a large number of consumers aged 25 to 39 who use online banking services on a regular basis are indeed interested in extended personal financial management and forecasting capabilities.

The main challenge, however, is that most financial institutions are lacking awareness of this opportunity. If the use of online financial management applications reaches mass adoption, most banks will have to integrate similar tools to their secure sites to remain in the hub of how customers manage their money. Savvy financial institutions will be able to capitalize on the strong demand for personal financial management, especially after the global financial crisis.

How can web technologies be utilized or help to improve financial assistance in this respect?

Time is one of the critical factors influencing financial decisions and unnecessary round-trips of information between customers and their advisors are costly. Also, financial advice is often perceived as intransparent by the customer.

Information technology can be utilized to make personal financial management self-services more plausible: The increasing availability of internet access, as well as significant improvements in web technology capabilities and usability presents an opportunity for financial service companies to reduce the cost of providing quality advice and service. Also, financial institutions can provide customers with transparency in budgeting and forecasting in order to reduce the complexity of financial decision making.

What are SAP Research's plans regarding personal financial management for the near future?

Currently, we are collaborating with SAP's local HR department to effectively roll out a prototype application called "PennyPointer" to the entire SAP workforce in Australia and New Zealand. The PennyPointer prototype is a web-based solution helping to manage personal finances strategically. The prototype resulted from an SAP Research internal project. In comparison to standalone homefinance and other online applications, the input needed for analysis is focused on monthly balances of all accounts instead of every single line of transaction. This enables bottom-line analyses based on monthly balances and budget. In combination with an intuitive user interface, no deep financial understanding is required to turn the analysis effort into added value.

Thank you for this interesting conversation.

Infopool

News

Awards

E-Finance Lab researchers Prof. Dr. Roman Beck and Frank Zickert received the HERBERT A. SIMON BEST PAPER AWARD at the 5th International Conference on Design Science Research in Information Systems and Technology (DESIST 2010) in St. Gallen, Switzerland. With their research, they present a new mapping model for assessing project effort in the requirements engineering process. Congratulations!

Team Members

Dipl.-Wirt.-Inf. Robert Gregory (layer 1) has received his doctoral degree on August 10th, 2010 with a dissertation on "Management and Evolution of Global IS Outsourcing Relationships". Congratulations!

Dipl.-Kfm. Taro Niggemann, MsC (layer 2) has received his doctoral degree on July 16th, 2010 with his dissertation titled "Essays in Empirical Capital Markets Research". Congratulations!

International Research Conference organized by CFS, Deutsche Börse AG and EFL

Under the title "The Industrial Organisation of Securities Markets", the Center for Financial Studies, Deutsche Börse AG, and the E-Finance Lab (layer 2) hosted the second international top research conference around current topics in securities markets at the premises of Deutsche Börse AG in Frankfurt.

The conference featured international top-class researchers that were selected based on a peer review process. The presentations and discussions shed light on all aspects of the industrial organization of securities markets, including clearing and settlement services for both cash and derivative markets. The feedback from the participants (one third were practitioners) was as overwhelmingly positive as at the first conference on this topic in 2008.



The organizers: Prof. Dr. Gomber, EFL;
Dr. Reck, Deutsche Börse AG;
Prof. Dr. Theissen, CFS; (left to right)

E-Finance Lab Spring Conference 2011 "Financial System Stability – Can Cloud Computing Contribute to a Solution?", February 22nd, 2011.

The E-Finance Lab Spring Conference 2011 will be held at the Campus Westend of the Goethe-University (Casino), Frankfurt, on February 22nd, 2011 (starting at 2 pm).

Further information on the agenda and the registration will be available soon under <http://www.efinancelab.de/events/conferences>

Selected E-Finance Lab publications

Ende, B.; Gomber, P.; Lutat, M.; Weber, M.:

A Methodology to assess the Benefits of Smart Order Routing.

In: Proceedings of the 10th International Federation for Information Processing Conference on e-Business, e-Services, and e-Society (I3E). Buenos Aires, Argentina, 2010.

Ende, B.; Muntermann, J.:

Dark Pools of Liquidity in Electronic Securities Trading.

In: BIT – Banking and Information Technology 11 (2010) 1, pp. 35–44.

Fischer M.; Steffen S.:

Bank Capital Ratios, Competition and Loan Spreads.

In: Deutsche Gesellschaft für Finanzwirtschaft, Annual Meeting. Hamburg, Germany, 2010.

Fischer M.:

Corporate Cost of Borrowing: TRACE on Syndicated Loans.

In: Northern Finance Association, Annual Meeting. Winnipeg, Canada, 2010.

Messerschmidt, C. M.; Berger, S. C.; Skiera, B.:

Web 2.0 im Retail Banking – Einsatzmöglichkeiten, Praxisbeispiele und empirische Nutzeranalyse.

In: Gabler Verlag, Springer, Wiesbaden, 2010.

Niemann, M.; Siebenhaar, M.; Eckert, J.; Steinmetz, R.:

Process Model Analysis using Related Cluster Pairs.

In: Proceedings of the 1st International "Process in the Large" Workshop (IW-PL) in connection with the 8th International Conference on Business

Process Management (BPM). New York, USA, 2010.

Pahlke, I.; Beck, R.; Wolf, M.:

Enterprise Mashup Systems as Platforms for Situational Applications – Benefits and Challenges in the Business Domain.

In: Business & Information Systems Engineering 5 (2010) 2, pp. 305–315.

Prifling, M.:

IT Project Portfolio Management – a Matter of Organizational Culture?

In: Proceedings of the 14th Pacific Asia Conference on Information Systems (PACIS). Taipei, Taiwan, 2010.

Rauch, C.:

Bank Fragility and the Financial Crisis – Evidence from the US Dual Banking System.

In: International Finance Review 11 (2010), pp. 33–86.

Schulze, C.:

Affiliate Marketing: Setting Optimal Commissions.

In: Proceedings of the 32nd INFORMS Marketing Science Conference. Cologne, Germany, 2010.

Vykoukal, J.; Beck, R.; Wolf, M.:

Impact of Pressure for Environmental Sustainability on Grid Assimilation – Empirical Results from the Financial Services Industry.

Forthcoming in: Australasian Journal of Information Systems (2010).

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

<http://www.efinancelab.com/publications>

Infopool

RESEARCH PAPER: A METHOD TO EVALUATE THE SUITABILITY OF REQUIREMENTS SPECIFICATIONS FOR OFFSHORE PROJECTS

Nowadays, the development of business information systems is subject to the global offshoring trend. Within an inter-organizational and inter-cultural context, the requirements specifications of a development project are the central means for communicating the development scope as explicitly as possible. Therefore, the appropriateness of requirements specifications is mission critical in such offshore projects. In their paper, Overhage et al. first present eight quality criteria for requirements specifications in order to assess their suitability. After that, they discuss five critical compensating factors that may potentially balance out an insufficient specification quality during the offshore project. Based on this foundation, they describe a method for rationally evaluating the suitability of requirements specifications for instantiating an offshore project. Eventually, they show the application of their method using a large case study that has been conducted with an industry partner. The results achieved using their method were confirmed in that study.

Overhage, S.; Skroch, O.; Turowski, K.

In: *Business & Information Systems Engineering* 2 (2010) 3, pp. 155–164.

RESEARCH PAPER: WHEN IS A LIABILITY NOT A LIABILITY? TEXTUAL ANALYSIS, DICTIONARIES, AND 10 KS

Textual analysis represents a promising approach to automatically explore the sentiment of unstructured data sources, including corporate disclosures or any other news published. In such analyses, the textual data is converted into a simple unordered collection of single words that is subsequently analyzed. In contrast to machine learning approaches where a model is developed from given datasets, the authors develop domain-specific word lists (i.e. dictionaries) that contain for example collections of negative or positive words from a financial perspective. Given these dictionaries, the authors aim to automatically analyze annual company reports (Form 10 K) by counting and weighting those words that are listed in their dictionaries. After observing capital market reactions such as abnormal trading volumes or excess returns around the 10-K filing dates, the authors explore whether or not their word lists contain relevant information, particularly compared to the generic Harvard Psycho-Sociological Dictionary. The authors show that in contrast to this generic dictionary, the developed domain-specific word lists are actually related to market reactions. These results provide evidence that textual analysis on the basis of domain-specific word-lists can contribute to a better understanding of how new information drives stock returns.

Loughran, T.; McDonald, B.

In: *The Journal of Finance* (forthcoming)

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@definancelab.com or mail your business card with the note “please printed newsletter” to

Prof. Dr. Peter Gomber

Vice Chairman of the E-Finance Lab

Goethe University

Grüneburgplatz 1

60323 Frankfurt

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@definancelab.com.

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



The E-Finance Lab is a proud member of the House of Finance of Goethe University, Frankfurt.
For more information about the House of Finance, please visit www.hof.uni-frankfurt.de.

THE E-FINANCE LAB IS AN INDUSTRY-ACADEMIC RESEARCH PARTNERSHIP BETWEEN FRANKFURT AND DARMSTADT UNIVERSITIES AND PARTNERS BEARINGPOINT, DEUTSCHE BANK, DEUTSCHE BOERSE GROUP, DZ BANK GRUPPE, FINANZ INFORMATIK, IBM, T-SYSTEMS, 360T, DAB BANK, AND INTERACTIVE DATA MANAGED SOLUTIONS LOCATED AT THE HOUSE OF FINANCE, J. W. GOETHE UNIVERSITY, FRANKFURT.

For further
information
please
contact:

Prof. Dr. Peter Gomber
Vice Chairman of the
E-Finance Lab
Goethe University
Grüneburgplatz 1
D-60323 Frankfurt am Main

Phone +49 (0)69 / 798 - 346 82
Fax +49 (0)69 / 798 - 350 07
E-Mail gomber@wiwi.uni-frankfurt.de

Press contact
Phone +49 (0)69 / 798 - 338 67
Fax +49 (0)69 / 798 - 339 10
E-Mail presse@efinancelab.com

or visit our website
<http://www.efinancelab.com>