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The "365 Landmarks in the Land of Ideas" competition

Under the patronage of the President of the Federal Republic of Germany, since 2006 the "Germany – Land of Ideas" nation-branding initiative has cooperated with Deutsche Bank to reward ideas and projects that make a lasting contribution to Germany's future viability. The "Landmarks 2011" have been elected and the E-Finance Lab is one of the winners. This award confirms that the specific composition of the E-Finance Lab at the interface between science and business is a successful model for research cooperation.

Editorial

Fragmentation poses challenges for market surveillance

Hans-Ole Jochumsen



Hans-Ole Jochumsen, President FESE, President NASDAQ OMX Nordic

In 2007, the Markets in Financial Instruments Directive (MiFID) was introduced to open up the European exchange industry to competition while increasing trading transparency. Three years later we can observe that while the competition element of MiFID was successfully implemented, the objective of increased transparency has failed on several accounts. A substantial portion of European trading still takes place outside of MiFIDregulated venues, while the increased fragmentation has presented significant challenges for surveillance professionals. There is currently no system for surveillance of order-level information across different venues, which makes it very difficult to discover market abuse. Hence, while MiFID opened up markets for competition, it did not properly address how surveillance should be conducted in a fragmented world.

Before MiFID came into effect, national exchanges had a comprehensive and complete picture of order books and transaction flows. However, the increasing portion of market share traded on MTFs has fractured this picture. Today, the same security may be traded on multiple venues, but each venue only has responsibility for surveillance of its own marketplace. As a result, no one has overall responsibility for surveillance in a given share, and no one has a complete view of the transactions across all venues.

This environment has made it easier for certain types of market manipulation to go undetected. There is, for example, currently no system for monitoring order information across venues which would reveal manipulative practices, such as "layering", where traders send multiple orders priced closely to the current best bid and offer to create the false impression of liquidity in a stock.

Other market abuse tactics include so-called "front running", where brokers can trade ahead of a client's order and benefit from the price movement caused by this order. Moreover, dark pools can be manipulated by placing

orders onto the lit books that narrow or move the best bid and offer reference. These schemes involve two different venues and take advantage of the fact that it is impossible within the current surveillance structure to see the connection at the exchange level.

Furthermore, operational issues constitute a challenge to solve the multi-market surveillance dilemma. Market operators often respond to high volatility in a single security by calling a trading halt in that stock and issuing a price query to the listed company. This enables market participants to take in newly disclosed information and allows price discovery to occur through a call auction. Sometimes, however, alternative markets disregard the halt and continue trading, allowing participants with unfair access to information to trade before the primary market re-opens. Consequently, local regulators can today receive reports of transactions in a security during a trading halt that took place on venues that do not list the security.

Needless to say that the surveillance fragmentation issue is one that needs to be engaged. The whole market will benefit from a European regulatory framework that calls for collaboration between regulated exchanges and other venues that trade their shares, as well as the exchange of confidential information.

The next edition of European exchange legislation, MiFID II, is evaluating regulatory meas-

ures in line with this to strengthen market surveillance on a European level. Consultation papers on MiFID II suggest that operators of regulated markets and MTFs that trade the same financial instruments should be required to cooperate and exchange information to better detect market abuse or misconduct across different markets. Venues would have to inform each other and the regulators when certain conditions arise. Such information exchange would include a decision to suspend or remove a financial instrument from trading, a system disruption such as the triggering of a circuit breaker, and disorderly trading conditions or conduct that may involve market abuse.

For that vision to become a reality, surveillance departments at exchanges and other trading venues need to develop the infrastructure and processes to efficiently share sensitive information in a secure manner. Given the complexity of this operation, it will make sense for some trading venues to outsource it to an entity that has the expertise and advanced technology to handle it. NASDAQ OMX Nordic believes that the ideal route would be to allow the home market of each instrument to take primary responsibility for trading surveillance of that instrument, while enforcing trading information to be shared between regulated and alternative marketplaces. Only when this surveillance framework is in place can we efficiently and proactively prevent market abuse and manipulation in order to create a transparent and fair European securities market.

Research Report

How to make IT Projects accountable in the Network Economy

IN TWO-SIDED MARKETS SUCH AS EXCHANGES, AN INTERMEDIARY BRINGS TOGETHER TWO DISTINCT CUSTOMER POPULATIONS, E.G., BUYERS AND SELLERS. THESE CUSTOMER POPULATIONS INTERACT VIA A PLATFORM PROVIDED BY THE INTERMEDIARY, AND TYPICALLY NETWORK EFFECTS ARE OBSERVABLE IN THESE MARKETS; IF THE NUMBER OF BUYERS IS HIGH, MORE SELLERS ARE ATTRACTED TO THE PLATFORM, AND VICE VERSA. IN SUCH MARKETS IT IS DIFFICULT TO MEASURE THE ECONOMIC SUCCESS OF IT INVESTMENTS. THIS ARTICLE PROPOSES A SOLUTION.

Tim Kraemer Bernd Skiera

Oliver Hinz

Introduction

According to IDC, the worldwide IT investments in 2010 amounted to over one trillion Euro. However, it has been shown that only 62% of all software projects are successful. Due to the combination of high investment volumes with the moderate success rates of these investments, IT departments are increasingly under pressure to justify expenses for past IT investments and to use measures to make informed decisions about future IT investments. The success of IT investments can be qualitatively assessed using measures such as user satisfaction and system quality, or according to their economic success using measures such as revenues and profits. IS research and practice have developed a broad spectrum of instruments to measure the qualitative success of IT investments, though only a few approaches enable the measurement of the economic success of IT investments because this field lacks simple and valid methods (Tallon and Kraemer, 2007). Due to network effects, measuring the economic success of IT investments in two-sided markets has become even more challenging. Positive (negative) network effects exist if a customer's utility derived from a service increases (decreases) because of other customers using the same service.

Two-sided markets exist in many industries and are part of the "Network Economy". In two-sided markets, an intermediary provides the platform that connects two distinct customer

populations. For example, peer-to-peer lending platforms such as Prosper.com bring together lenders and borrowers and provide an infrastructure and rules that enable transactions between these two customer populations. The Internet has created new industries such as online auction houses and digital market-places where intermediaries provide platforms that bring together buyers and sellers or, generally speaking, demand and supply.

In two-sided markets, both customer populations (e.g., buyers and sellers in the case of an exchange) are crucial to the intermediary. The existence of many sellers attracts more buyers to the platform. Conversely, the presence of many buyers attracts more sellers. Thus, socalled cross-side network effects exist in twosided markets. In addition, network effects can exist within one customer population - referred to as same-side network effects. IT investments in two-sided markets should not only aim to increase short-term profits, but should also strengthen the retention of existing buyers and sellers and facilitate the acquisition of new buyers and sellers because both customer populations are important to the intermediary. Along with the growth of both customer populations, the intermediary aims to create a virtuous circle, where both customer populations stimulate each other's growth through network effects. However, network effects in two-sided markets can be positive or negative. For example, a new seller can have a positive effect on the cross-side customer population (i.e., can retain and attract buyers) and a negative effect on the same-side customer population (i.e.,

can increase competition between sellers). These feedback loops explain the complexity of the growth process of customer populations in two-sided markets.

From an intermediary's perspective, making investments in a platform's functionality to stimulate the growth of both customer populations is somewhat difficult. First, the intermediary must make a strategic decision to determine the customer population to invest in. Most new IT functionalities can only be targeted at one customer population. Second, the intermediary must decide which type of IT functionality should be introduced. The IT investments and their impact on the retention and acquisition rates of the targeted customer populations, together with the effect of feedback loops, make it difficult to assign IT investments to customer populations in two-sided markets (Bakos and Katsamakas. 2008) and to measure the economic success of such investments.

Solution: Measuring the Platform Value

Measuring the intermediary's so-called platform value provides a remedy. The platform value is the net present value of all long-term profits provided by current and future buyers and sellers. The intermediary can thus measure the economic success of IT investments in monetary terms and specify whether investments in buyers or sellers are more successful. Thus, the platform value enables the intermediary to make a strategic decision regarding which customer population priority should be assigned to. The platform value also facili-

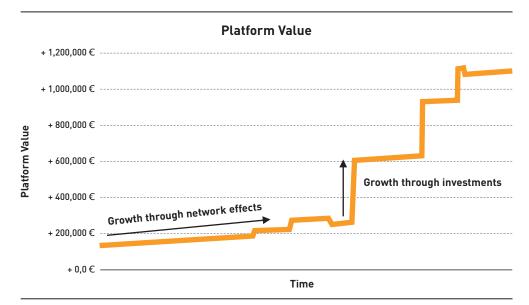


Figure 1: Development of Platform Value over Time

tates decisions regarding the types of IT functionality that should be introduced by taking cues from the most successful IT investments in the past and their effect on the two market sides. From the perspective of IT departments, measuring the platform value enhances the accountability of IT investments. Therefore, IT departments can better justify expenditures for successful IT investments and are able to learn from failed investments. Currently, knowledge about how the economic success of IT investments in two-sided markets should be measured is scarce. Managers might be tempted to assign IT investments to the customer population that provides revenues (i.e., the sellers). However, sellers only pay because of the presence of the "free customers" (i.e., the buyers). Thus, managers might misleadingly ignore one customer population. Our modeling approach takes a Customer Equity model as starting point and integrates a model for growth processes in two-sided markets. The growth model accounts for asymmetric network effects both within a customer population (same-side network effects) and between customer populations (cross-side network effects). Moreover, we can distinguish network effects on the retention of existing customers and on the acquisition of new customers

Empirical Findings

To demonstrate the applicability of the platform value approach, we apply it to data from an intermediary operating a two-sided market. The intermediary charges sellers a fee of 3% of the transaction volume, while buyers can use the platform free of charge. This intermediary relies on growth through network effects fostered by an improvement of the platform's functionalities and already completed eight major software releases. each of which represented investments into IT. The intermediary targeted the buyer's side with five IT investments and the seller's side with three IT investments. We consider cross-side and same-side network effects in the estimation of the number of new and lost buyers and sellers in each time period. Thus, we measure the success of IT investments by the additional profits from buyers and sellers who either continue to use or join the platform because of the investments in platform functionality. We analyze data on 78,180 completed transactions on a daily basis and measure the economic success of all major IT investments. Figure 1 shows that the platform value increases due to positive network effects at the beginning. We also observe sharp increases of the platform value due to new platform functionalities. These functionalities increased either the retention or the acquisition rate. Based on the changes of the platform value, it is straightforward to determine the ROI if project costs are tracked.

The platform value reveals a significant contribution of buyers to the platform value, even though the intermediary exclusively charges the seller. We find further evidence suggesting that intermediaries should invest in buyers rather than in sellers because the most successful IT investments

were targeted at buyers. In terms of the types of IT investments that are most successful, our results suggest that intermediaries should invest in functionalities that increase trust in products, trust in the intermediary, and trust in trading partners on the other market side.

Conclusion

High project costs have put IT departments under pressure to provide better information regarding the economic success of IT investments. This task is particularly difficult in two-sided markets where an intermediary brings together two distinct customer populations, such as buyers and sellers on an exchange platform. The IT investments of the intermediary typically provide benefits to only one customer population, but cross-side and same-side network effects allow them to have an impact on both customer populations. We find that measuring the intermediary's platform value provides an elegant solution to this problem.

References

Bakos, Y.; Katsamakas, E.:

Design and Ownership of Two-Sided Networks: Implications for Internet Platforms. In: Journal of Management Information Systems, 25 (2008) 2, pp. 171 – 202.

Tallon, P. P.; Kraemer, K. L.:

Fact or Fiction? A Sensemaking Perspective on the Reality behind Executives' Perceptions of IT Business Value. In: Journal of Management Information Systems, 24 (2007) 1, pp 13 – 54.

Research Report

Dealing with Information Overload in the Financial Services Industry

IN RECENT YEARS, ELECTRONIC COMMUNICATION EXPERIENCED SIGNIFICANT IMPROVEMENTS THROUGH NEW WEB 2.0 SOLUTIONS. HEREBY, NEW ELECTRONIC COMMUNICATION SYSTEMS OPENED COMPLETELY NEW POSSIBILITIES FOR COMMUNICATION. HOWEVER, NEW RISKS (E.G., INFORMATION OVERLOAD) EMERGED AS WELL. THIS ARTICLE PRESENTS AN EMPIRICAL INVESTIGATION ON THE USE OF ELECTRONIC COMMUNICATION SYSTEMS FOR INFORMATION SHARING AND ON THE INFLUENCE ON EMPLOYEES' PERFORMANCE.

Sven Weber Roman Beck

Wolfgang König

Introduction

During the last 10 to 15 years, communicating through electronic communication systems, such as e-mail, became the de-facto standard within organizations for exchanging information. Moreover, e-mails have not only gained tremendous importance in the business domain but became a household standard for private communication as well. In more recent years, new communication channels and platforms emerged in the form of new social media, such as Microblogging, Wikis, and Online Communities. This has led to a new era of communication, commonly referred to Web 2.0. Thereby, not only the communication systems have changed and improved significantly but also the attitudes and behaviors of their users. Being "always on"

became a basic need which not only has accelerated the way business is conducted nowadays but also how individuals communicate with each other in their private time. With the increasing number of new communication channels and platforms, the volume and intensity of communication has increased significantly as well (Eppler and Mengis, 2004). This creates new challenges for individuals but even more for organizations not knowing how to deal with all the information. In this context, we see a fading between the formerly strict barriers of business and private life requiring new solutions to meet the growing demand of users for flexible yet easy-to-use communication solutions.

As a consequence, one can observe a trend towards unified communication solutions within organizations to meet and manage the aforementioned challenges while at the same time being able to benefit from these developments. Given the ongoing blossoming of all kinds of communication solutions, enterprises are confronted with the question which technology to adopt and how to integrate it into the corporate environment. At the same time, they need to identify which business value these communication solutions really have and how they affect business process performance and ultimately enterprise success.

Information Overload in the Business Environment

Information overload occurs when the volume of the information supply exceeds the limited human information processing capacity. Given the "always on" state of modern office workers, dysfunctional effects, such as stress and confusion, can be the result (Eppler and Mengis, 2004).

The basic meaning of information overload is that an individual person receives too much information in a certain period of time which cannot be handled anymore. Therefore, the individual is stressed by an information (and task) overloading. This overload depends on two main factors: information processing capacity (IPC) and information processing requirements (IPR). IPC is defined by every individual and depicts the amount of information that an individual can deal with. IPR

is defined by the amount of information that an individual has to deal with to complete an assigned task. Hence, information overload is measured by the following inequation (Eppler and Mengis, 2004):

IPR > IPC → information overload

Therefore, the individual performance depends directly on the emerging information. The performance rises with an increasing portfolio of information until it reaches a maximum. Thereby, the synchronic processing of several tasks might not directly lead to an information overload. The individual can handle several tasks at the same time until the IPC is reached. Information overload comes into place with a further increase of information which has to be processed. At this point, the individual IPR is higher than the IPC and the performance starts to decline.

In summary, information overload arises through a loss of control of incoming, outgoing, and already processed messages (Bawden, 2001). Hence, the problem of information overload exists for all electronic communication systems, such as e-mail, instant messaging, smart phones, etc. (Reeves et al., 2008).

Empirical Investigation

In order to empirically analyze the impact of information overload on the employees' individual performance, a questionnairebased field study was conducted. The study aimed

at employees of a bank in the US which are using electronic communication systems in their daily business. In order to measure the impact of information overload on the employees' performance, we identified information sharing among employees and the individual performance as dependent variables for our investigation.

We posit that employees' individual and collective behaviors affect information sharing. Behavior towards individualism is basically guided by personal goals. In contrast, behavior towards collectivism is basically guided by the goals of the collective (Srite and Karahanna, 2006). As a consequence, people who live in an individualistic culture or organization are less concerned about the opinions of others. In contrast, people who live in a collectivistic culture or organization commit themselves to the values and opinions of their groups (Srite and Karahanna, 2006). Hence, sharing information among employees requires a collectivistic behavior of the staff. Thus, we claim the following hypothesis:

H1: Behavior towards collectivism positively affects the sharing of information among employees.

Based on the work of Bruque et al. (2008), the technological accessibility of electronic communication systems influences the cooperation and coordination of employees. The goal of this construct is to explore whether internal electronic communication systems are acces-

sible to a sufficiently large extent and therewith increase information sharing among employees. Thus, we propose:

H2: The accessibility to the electronic communication systems positively affects the information sharing among employees.

Moreover, we posit that extrinsic rewards as well as intrinsic benefits are influencing the information sharing among employees (Wasko and Faraj, 2005). In this context, the motivation to help others positively affects the contribution and information sharing of people in electronic networks. In addition, the individual willingness to try out new communication systems and to help others with these technologies is of high importance for their motivation to share information or cooperate with employees. At the same time, external rewards (e.g., to receive a gratification) can help motivating the employees to share their information. Thus, the following hypotheses are proposed:

H3: The intrinsic motivation of individuals positively affects the sharing of information among employees.

H4: The extrinsic motivation of individuals positively affects the sharing of information among employees.

The perceived advantage of the employees by sharing their knowledge with colleagues with the help of electronic communication systems (Bock et al., 2005) is related to the fol-

lowing hypothesis. Sharing knowledge leads directly to an increased performance of the individual because of an increased repertoire of available information. Hence, we propose:

H5: Information sharing among employees positively affects the individual performance

Our last hypothesis deals with the information overload of the employees. The sharing of information has a strong impact on the individual information overload. For instance, asynchronous communication systems used to share information (e.g., e-mail) can lead to lower information overload than synchronous technologies (e.g., instant messaging) through the possibility of the participants not to answer directly to incoming messages. Therefore, information overload arises through a loss of control of incoming, outgoing, and already processed information and reduces the performance of the individual. Thus, we test the following hypothesis:

H6: The individual information overload lessens the relation between the information sharing of employees and the individual performance.

Discussion of the Results

In April 2010, 1000 randomly selected employees of a bank in the US were invited by e-mail to participate in the survey. The employees were asked to respond to the survey by filling out an online questionnaire. In addition, the potential participants were

asked to completely fill out the questionnaire to avoid missing values that can cause bias due to systematic differences between observed and unobserved data. Overall, 130 valid responses were completed, indicating a response rate of 13%.

The results of our empirical investigation (depicted in Figure 1) illustrate how the relation between sharing information among employees and the resulting individual performance is negatively moderated by information overload (H6). We discovered that information overload is driven by uncontrolled and extensive information sharing among employees as well as use of electronic communication systems which has a significant and negative impact on their performance.

Exploring the relation more closely, the empirical results indicate that a controlled use of electronic communication systems to share information is needed to hinder an overloading of the employees. The study revealed that most employees feel overloaded with information and are skeptical when it comes to handling even more information than today. If more communication systems are added without considering how to minimize the number of messages by applying communication rules and filters or by integrating existing communication channels and platforms in order to hand control back to the employees rather than being driven by communication systems, information overload can occur, leading to reduced performance.

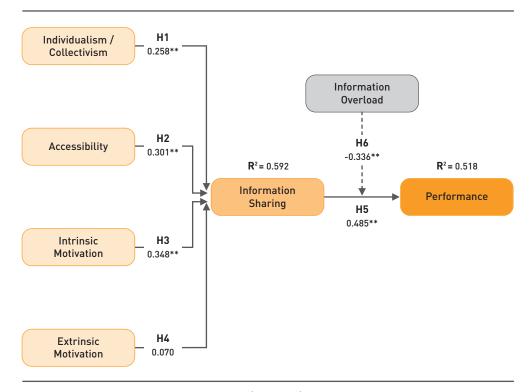


Figure 1: Empirical Results; ** p < 0.01, * p < 0.05 (two-tailed)

Before launching new electronic communication systems, enterprises should thoroughly pretest these systems in controlled environments with employees. This will not only result in a better understanding of the potentials of new systems but also provide an indicator about the willingness to accept these systems. Furthermore, potential rollout problems or negative second-order effects, such as misaligned communication systems, can be prevented to ultimately avoid an increase in messages and subsequent information overload.

In addition, one potential solution could be to implement more integrated, parsimonious communication systems in a mashup fashion to minimize the information overload of the employees by limiting or minimizing the variety of electronic communication systems. Figure 1 reveals that sharing of information among employees is influenced by several factors illustrated through H1 to H4. However, H4 is not significantly supported by our survey data. Thereby, we found that especially the self evaluation based on social competence and social acceptance is of high importance for an individ-

ual, and at some time more important than external rewards (Wasko and Faraj, 2005).

With regard to the financial services industry, the results indicate that it is relatively easy for banks to motivate their employees to share information but they have to take care of the information overload of their employees.

In this context, the perception of received irrelevant information and sent out irrelevant information is of high importance. On the one hand, employees are contributing to the information overload by sending irrelevant information to their peers, such as "Have you received my last e-mail?" On the other hand, messages, such as "Thanks a lot for this information", are important for the social contact between employees and should not be left out of the conversation.

Reeves et al. (2008) recommended a solution to the problem by providing employees the opportunity to attach a synthesized currency to important e-mails. However, the receiver of the messages should have the opportunity to indicate if the message was important for him or not. As a consequence, the sender receives feedback about his or her sent messages and thereby gets sensitized to the meaning of "importance" in different situations, cultures, and business lines.

References

Bawden, D.:

Information Overload. In: Library & Information Briefings, 92 (2001), pp. 1 – 15.

Bock, G. W.; Zmud, R. W.; Kim, Y. G.:

Behavioral Intention Formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate. In: MIS Quarterly, 29 (2005) 1, pp. 87 – 111.

Bruque, S.; Moyano, J.; Eisenberg, J.:

Individual Adaptation to IT-Induced Change: The Role of Social Networks. In: Journal of Management Information Systems, 25 (2008) 3, pp. 177 – 206.

Eppler, M. J.; Mengis, J.:

The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines. In: The Information Society, 20 (2004) 5, pp. 325 – 344.

Reeves, B.; Roy, S.; Gorman, B.; Morley, T.:

A Marketplace for Attention: Responses to a Synthetic Currency used to signal Information Importance in E-Mail. In: First Monday, 13 (2008) 5, pp. 1 – 17.

Srite, M.; Karahanna, E.:

The Role of Espoused National Cultural Values in Technology Acceptance. In: MIS Quarterly, 30 (2006) 3, pp. 679 – 704.

Wasko, M. L.; Faraj, S.:

Why should I share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice. In: MIS Quarterly, 29 (2005) 1, pp. 35 – 57.

Insideview

Frankfurt Cloud

INTERVIEW WITH ROLF RIEMENSCHNITTER (DEUTSCHE BANK AG) AND PROF. DR. CLEMENS JOCHUM (GOETHE UNIVERSITY FRANKFURT)



Rolf Riemenschnitter, Group CTO, Deutsche Bank AG



Prof. Dr.
Clemens Jochum,
E-Finance Lab,
Goethe University

The Frankfurt Cloud went live in October 2010. Since then, multiple projects have been initialized to leverage the resources of the Cloud. What is the purpose of the initiative?

Riemenschnitter: Cloud concepts such as standardization, virtualization and automation are already used successfully by companies to optimize internal IT infrastructures, up to the development of internal clouds. The expansion of this concept beyond the company boundaries, however, is found very rarely. The objective of the Frankfurt Cloud Research Community is to test the concept under real conditions and explore solutions for the various unsolved questions currently limiting a broader expansion of Cloud computing. This includes security, legal and

regulatory issues, technical aspects such as capacity management and load balancing, as well as commercial questions as, e.g., charging and pricing models.

The Frankfurt Cloud community covers multiple research domains. Could you give examples of typical research use cases being supported by the Cloud?

Jochum: In business economics, typical use cases are computing intensive simulations of mathematical and statistical models, e.g., for the evaluation of price preferences of clients and the definition of optimal pricing structures. Other use cases enabled by the Frankfurt Cloud include the analysis of extensive data volumes from social networks and model simulations to better understand climate change processes.

What is the technical setup of the Frankfurt Cloud and how will it evolve meeting the requirements of the Cloud user community at Frankfurt University?

Jochum: We have started with an initial infrastructure consisting of 8 blades with 48 GB RAM and 2 CPUs per blade. This setup has turned out to be extremely stable, serving a heterogeneous application environment. The Cloud offering is very well received with increasing demands from our user community, which con-

sists of different research projects across the Frankfurt University. To enable the on-boarding of further users as well as the introduction of additional Cloud services, e.g., web and database services, we will double the cloud capacity by the end of the 1st quarter 2011.

The university data center already provides a large amount of computing power. What is the additional advantage of having the Frankfurt Cloud?

Jochum: The Frankfurt Cloud provides additional computing resources which can be quickly allocated and scaled up and down in line with actual user requirements. As resources are shared, users need not invest in additional hardware anymore in order to ensure they have enough capacity for load peaks. Due to the easy access via an online self service portal, the Cloud is open to a wide user community – no special IT expert knowledge is required to become a Cloud user.

From an individual researcher's point of view: What is the advantage of having access to the Frankfurt Cloud?

Jochum: The allocation process of computing resources required for specific research projects gets shortened from months to minutes. In the traditional model, a researcher first needs

to ensure the funding, e.g., via an institution like the Deutsche Forschungsgemeinschaft (DFG). Then the researcher has to order the hardware, have it installed in the university's data center and finally needs to install the software. In the Frankfurt Cloud, he or she just needs to get access to the Cloud via the Cloud controller self service portal – including a short instruction via phone – and then will be able to allocate a virtual machine within 10 minutes.

In general, how do you expect Cloud computing to develop in the future and how can the Frankfurt Cloud contribute?

Riemenschnitter: In the next years, the promised benefits of Cloud computing will become more and more tangible. However, the success of the concept is highly dependent on how Cloud providers and users work together to create and promote standards, common approaches, as well as develop solutions for known issues such as security and data privacy. In this process, initiatives like the Frankfurt Cloud play an important role. Here, we can test and explore the opportunities as well as limitations of the concept under real conditions and develop solutions for open issues.

Thank you for this interesting conversation.

Further information on the Frankfurt Cloud can be found at: www.frankfurt-cloud.com

Infopool

News

Awards

Dr. Christian Schlereth received the research award of the Horizont foundation for his excellent dissertation "Optimal Pricing of Internet based Services". Congratulations!

Lisa Schöler received the research award of the Horizont foundation for excellent research in the area of marketing for her dissertation topics "Influence of Advertising Spending on Financial Performance" and "Viral Marketing". Congratulations!

Markus Fischer received the 2011 Irwin-McGraw-Hill Distinguished Paper in Finance Award for his paper "Corporate Cost of Borrowing: TRACE on Syndicated Loans" at the annual meeting of the Southwestern Finance Association in Houston, USA.

"365 Landmarks in the Land of Ideas": E-Finance Lab is one of the winners in 2011

Under the patronage of the President of the Federal Republic of Germany, since 2006, the "Germany – Land of Ideas" nationbranding initiative has cooperated with Deutsche Bank to reward ideas and projects that make a lasting contribution to Germany's future viability. The "Landmarks 2011" have been elected and the E-Finance Lab is one of the winners. The German President Christian Wulff congratulates this year's winners. "The future of our country depends largely on its ability to innovate", said Wulff. This award confirms that the specific composition of the E-Finance Lab at the interface between science and business is a successful model for research cooperation. The official awarding will take place at the House of Finance on April 11th, 2011.

Dr. Joachim Nagel elected new Chairman of the Council of the E-Finance Lab

Dr. Joachim Nagel, Member of the Board of the Deutsche Bundesbank, has become a new member of the Council of the E-Finance Lab and was elected Chairman of the Council as of March 1st, 2011. He will succeed Dr. Hans Reckers. We cordially thank Dr. Reckers for the many years of continued support and Dr. Nagel for his engagement!

Prof. Dr. Peter Gomber elected member of the Exchange Council of the Frankfurt Stock Exchange

Prof. Dr. Peter Gomber (head of layer 2) was elected as a member of the Exchange Council of the Frankfurt Stock Exchange (FSE). The Exchange Council is a key forum for discussing fundamental issues and developments at the FSE. Among other things, the Exchange Council is responsible for the appointment, dismissal and supervision of the management board. Furthermore, it issues the exchange rules, the fee regulations and the conditions for transactions on the exchange.

Selected E-Finance Lab publications

Ende, B.; Uhle, T.; Weber, M.:

The Impact of a Millisecond: Measuring Latency Effects in Securities Trading.

In: Proceedings of the 10th Internationale Tagung Wirtschaftsinformatik, Zurich, Switzerland, 2011.

Groth, S.; Muntermann, J.:

An Intraday Risk Management Approach Based on Textual Analysis.

In: Decision Support Systems, 50 (2011), Special Issue on Enterprise Risk and Security Management, pp. 680 – 691.

Kraemer, T.; Hinz, O.; Skiera, B.:

Return on IT Investments in Two-Sided Markets. In: Proceedings of the 21st Australasian Conference on Information Systems, Brisbane, Australia, 2010.

Miede, A.; Simsek, G.; Schulte, S.; Abawi, D. F.; Eckert, J.; Steinmetz, R.:

Revealing Business Relationships – Eavesdropping Cross-organizational Collaboration in the Internet of Services.

In: Proceedings of the 10th Internationale Tagung Wirtschaftsinformatik, Zurich, Switzerland, 2011.

Rauch, C.:

Private Equity – Blessing or Curse? The Case of IPOs.

In: Southwestern Finance Association Annual Meeting, Houston, TX, USA, 2011.

Schmitt, P.; Skiera, B.; Van den Bulte, C.:

Customer Acquisition through Referral Programs. In: Journal of Marketing, 75 (2011) 1, pp. 46 – 59.

Schuller, D.; Miede, M.; Eckert, J.; Lampe, U.; Papageorgiou, A.; Steinmetz, R.:

QoS-based Optimization of Service Compositions for Complex Workflows.

In: Proceedings of the 8th International Conference on Service Oriented Computing, San Francisco, CA, USA, 2010.

Schulze, C.; Bermes, M.; Skiera, B.:

Customer-Centric Reporting: An Analysis of Banks to Outline the Composition of Customer Business and Non-Customer Business.

In: Proceedings of the Australian and New Zealand Marketing Academy Annual Conference, Christchurch, New Zealand, 2010.

Weber, S.; Beck, R.:

Securitization-as-a-Service: How IT-based Co-Creation Can Provide Small Banks Access to the Financial Market.

In: Proceedings of the 6th International Conference on Design Science Research in Information Systems and Technology, Milwaukee, WI, USA, 2011.

Zickert, F.:

Analysis of Two Theoretical Perspectives on Information Systems Development: Towards an Integrated Perspective.

In: Proceedings of the 10th Internationale Tagung Wirtschaftsinformatik, Zurich, Switzerland, 2011.

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RESEARCH PAPER: GLOBAL RETAIL LENDING IN THE AFTER-MATH OF THE US FINANCIAL CRISIS: DISTINGUISHING BETWEEN DEMAND AND SUPPLY FEFECTS

The authors examine the real effects of an adverse credit shock, as measured by the U.S. financial crisis, through the global supply of credit. With the help of information on loan applications as well as loans granted in the period from 2006 to 2008 by German savings banks, the authors are able to distinguish between demand and supply side effects of bank lending. In general, their findings show that the U.S. financial crisis led to a contraction in the supply of retail lending in Germany. Further, affected banks reject substantially more loan applications than non-affected banks; even demand for loans is not substantially different for the affected and non-affected banks. The measured effects are more pronounced for smaller and more liquidity-constrained banks and mortgage loans. Concluding, this paper reveals insights that the crisis even impacts credit granting policies of banks that are mandated to serve only local customers and in countries that are only indirectly affected by the crisis.

Puri, M.; Rocholl, J.; Steffen, S. Forthcoming in: Journal of Financial Economics, 2011.

RESEARCH PAPER: THE CAUSAL IMPACT OF MEDIA IN FINANCIAL MARKETS

Measuring the causal impact of media reporting is a difficult task. The authors address this problem by comparing the behavior of investors with access to different media coverage of the same information event. To do so, the authors identify zip codes of 19 mutually exclusive trading regions corresponding to large U.S. cities. By looking at all earnings announcements of S&P 500 Index firms, the authors show that local media coverage strongly predicts local trading, which also holds after controlling for earnings, investor, and newspaper characteristics. Since local trading is strongly related to the timing of local reporting, it is particularly difficult to challenge non-media explanations.

Engelberg, J.; Parsons, C. Forthcoming in: Journal of Finance, 2011.

Electronic newsletter

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