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Bridging Markets

How to Reliably Verify Compliance with Cloud SLAs from a Consumer's Perspective?

How Status Shapes Objectivity in User-Generated Content

Innovation & Digitalization within the Financial Sector



Deutsche Bank



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Editorial

Bridging Markets

Chen Han

As China is gradually opening up its capital markets, the potential of renminbi (RMB)-denominated trading in offshore markets seems unmatched, especially looking at the imminent growth of the RMB. In order to further establish the RMB as a trading and investment currency, the current endeavour to broaden the accessibility of RMB-denominated products in offshore markets and linking the Chinese and international capital markets becomes of vital importance.

The effort to internationalize the RMB is also significant for international investors, as China's financial market reform ultimately allows for better accessibility to attractive direct investment opportunities. China is progressively increasing the quota for Qualified Foreign Institutional Investors (QFII) and, thereby, broadens both onshore and offshore markets. Furthermore, liberalization initiatives are under way, allowing Chinese and foreign investors to interact in cross-border asset transactions.

Supporting globalization initiatives and alignments between the Chinese and international capital markets, both on a regulatory and organizational level, has become more important than ever, as we stand on the brink of China's integration with global capital markets. To fully understand the opportunities that lay ahead, we need to observe key events which undoubtedly propelled the RMB internationalization to its current state.

First, the Shanghai-Hong Kong (SH-HK) Stock Connect, a cross-boarder pilot programme that linked both markets, lifted former restrictions and historic limitations of trading shares previously targeted to local investors. SH-HK Stock Connect not only changed the structural investment landscape, but also provided unprecedented investment opportunities for foreign investors. In 2016, China is supposed to initiate Shenzhen-Hong Kong Stock Connect, improve SH-HK Stock



Dr. Chen Han
Co-CEO
China Europe International Exchange AG

Connect and further evaluates connections to European exchanges.

Another recent milestone was China Europe International Exchange (CEINEX), a cooperation between Deutsche Börse Group and two Chinese Exchanges, namely Shanghai Stock Exchange and China Financial Futures Exchange. Utilizing know-how, leveraging capabilities and channelling combined efforts through CEINEX, we embark on a mission to create a new RMB-offshore hub in Frankfurt by providing attractive investment opportunities to international investors, internationalizing the RMB and, most importantly, further developing the RMB as an investment currency. As of March 1st, 2016, total value traded amounted to approximately RMB 1.6 billion. Currently, about 200 products are being traded on CEINEX, in RMB and other currencies. Starting with ETFs, Bonds, DRs, and D-Shares, CEINEX is planning to extend

its product range from cash to derivatives products.

Lastly, it is irrevocable that the liberalization of China's economy has not gone unnoticed. An important step towards the internationalization of the RMB was accomplished last year, when the International Monetary Fund (IMF) announced its inclusion in the basket of currencies with Special Drawing Rights (SDR), given its substantial increase in the international use and trading. So, where do we go from here?

In order to promote RMB internationalization and create a new liquidity pool for RMB-denominated products, we need to actively engage in the development of global capital market integration between Chinese and international capital markets, political activities and support the opening of the world's second largest economy and, as a result thereof, provide new investment opportunities for investors, globally.

Research Report

How to Reliably Verify Compliance with Cloud SLAs from a Consumer's Perspective?

TODAY'S CLOUD CONSUMERS HAVE VERY LIMITED MEANS FOR VERIFYING THE COMPLIANCE TO PRIOR NEGOTIATED SLAS INDEPENDENTLY FROM A CLOUD PROVIDER. IN ORDER TO OBTAIN RELIABLE MEANS FOR SERVICE MONITORING, WE PROPOSE AN INTERMEDIARY-BASED SOLUTION IN CONJUNCTION WITH DIFFERENT STRATEGIES FOR ROBUST CLOUD MONITOR PLACEMENT.

Melanie Holloway

Introduction

Nowadays, the use of IT has become a necessity in a variety of industrial sectors. Even in the financial industry, the provisioning of financial services highly depends on IT. Due to the highly competitive environment in the financial services industry, lowering IT-related costs constitutes a major requirement. Furthermore, the productivity and quality of the financial products and services is increasingly dependent on the IT. Thus, the requirements on system availability and IT service quality are also increasing.

In terms of cost and flexibility, cloud computing can provide competitive advantages. Basically, cloud computing enables the dynamic provisioning of IT resources. The functional properties of

Ralf Steinmetz

these resources (e.g., CPU or RAM) can be configured by consumers. Besides this high level of functional flexibility, cloud services also permit cost savings due to, e.g., the consolidation of IT resources in large data centers (Creeger, 2009).

In general, the needs of cloud consumers not only differ from a functional perspective, but also include – depending on the particular business requirements – different levels of service quality. However, when using services from the cloud, consumers face a loss of control over service quality due to a shift of responsibility to the cloud provider. In order to address that issue, today's cloud providers offer some quality guarantees in the form of Service Level Agreements (SLAs). However, cloud providers often put the burden of

reporting SLA violations on their customers and even provide own monitoring solutions for detecting such violations. Since data obtained in this way cannot be regarded as an independent base of evidence, we explore how to verify the compliance of cloud providers with the negotiated SLAs in a reliable manner from a consumer's perspective in our research work. In detail, we address the following two research questions:

1. How to provide reliable means for monitoring cloud SLAs from a consumer's perspective?
2. How to determine reliable locations for placing monitoring components?

Solution: SLA Management-as-a-Service

In order to address the issues mentioned above, we have designed an intermediary-based solution. The intermediary, in the form of a cloud broker, is acting as an independent, trusted third party which performs SLA management tasks, such as SLA monitoring, on behalf of cloud consumers. Besides the monitor design, the access to the monitoring components during monitoring must also be taken into account. Since failures of IT resources, such as outages of virtual machines (VMs) or network components, may prevent the monitoring components from delivering any data, an optimization of the distribution of the monitoring components is required. The resulting research problem is denoted as Robust Cloud Monitor Placement Problem. A tangible example is provided in Figure 1.

Given a number of cloud services (e.g., S1) to be monitored residing in one or more data centers of a cloud provider (e.g., PD1 and PD2), loca-

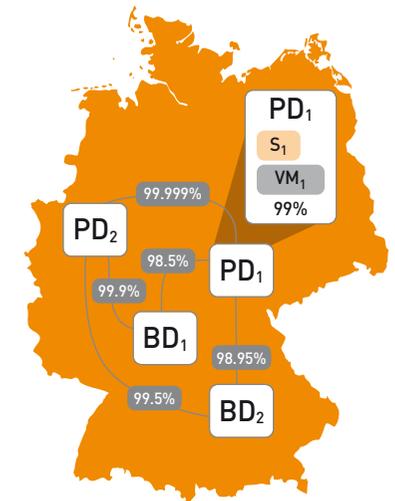


Figure 1: Simplified Example of a Robust Cloud Monitor Placement Problem

tions for the monitoring components should be chosen in such a manner that maximizes the reliability of the whole monitoring system. In this respect, we use redundant monitor components for each cloud service in order to increase the fault tolerance of the monitoring system and, thus, to increase its overall reliability. We further assume that the cloud broker is also running several private data centers (e.g., BD1 and BD2) at different geographical locations in order to additionally assess the quality of a service from a consumer's perspective. In doing so, monitoring components can be placed on VMs in a data center on provider- and broker-side. Depending on the placement of a monitoring component, the underlying VM as well as the network connection in between the monitoring component and the cloud service to be

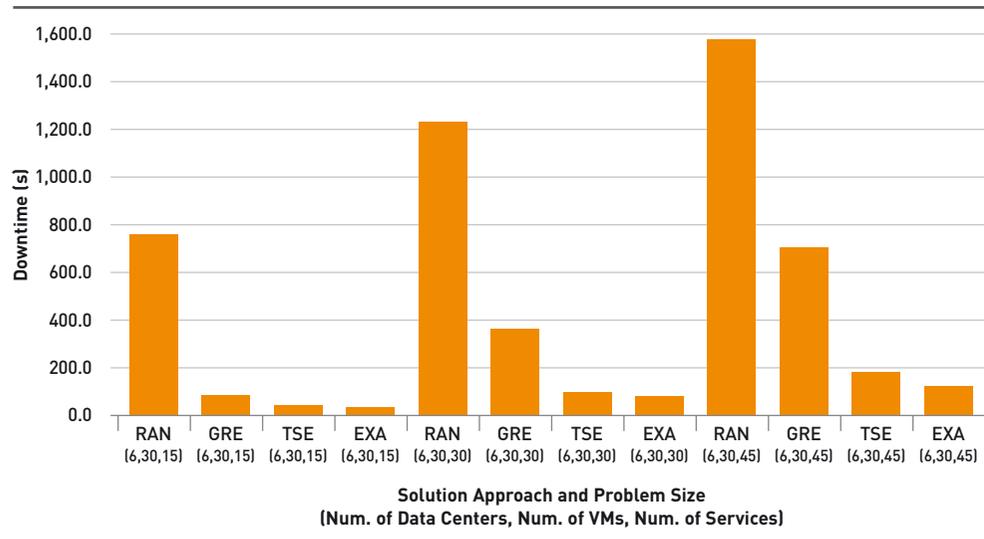


Figure 2: Mean Reliability in Terms of Probable Downtime

monitored may be more stable or unstable. In addition, resource constraints must be taken into account. The monitoring components have a certain resource demand depending on the cloud service to be monitored and the VM candidates for monitor placement only offer a limited resource supply. For the complete optimization model, the interested reader is referred to our publication (Siebenhaar et al., 2014).

To minimize the probability of failures and thus, to maximize the reliability of the monitoring tasks, we deal in our current work with the development of appropriate procedures for the optimal distribution of the monitoring components. In order to obtain an exact solution of the underlying optimization problem, techniques from the field of Operations Research are applied.

Furthermore, we have developed different heuristic approaches that trade solution quality against computation time.

Empirical Findings

To evaluate the practical applicability of our proposed solution approaches, we have performed a quantitative evaluation. The objective of this evaluation was to examine the computation time and the solution quality. For this purpose, we have generated 14 test cases, each incorporating a different number of data center sites, VMs on each site, services running on each VM, and redundant monitor components to be placed for each service. For each of these test cases, we have randomly generated 100 different problem instances using realistic data concerning availability guarantees and VM capacities from well-

known cloud providers, such as Amazon, and statistics from the PingER project (PingER, 2016) in order to model the reliability of the network connections. Each problem instance was solved using our exact solution approach (EXA), our two heuristic approaches (GRE and TSE), and by using a random placement (RAN). Selected results of the evaluation are depicted in Figure 2.

The evaluation revealed that the optimization problem can only be solved exactly for a small number of VMs and cloud services. This is due to the fact that the computation time grows exponentially with an increasing problem size. For example, it already takes around 2 min in case of 30 VMs and 45 services. Hence, the practical applicability of the exact solution approach with regard to real data centers is very limited. In contrast, our heuristic approaches are able to solve similar problem instances in a few seconds. In terms of solution quality, the results of a random placement also emphasize the need for heuristic solutions. By applying a random-based procedure to the problem instance mentioned before, the monitoring components would still exhibit a level of unreliability that equals a downtime of 25 min (on a yearly basis). In contrast, the monitoring components will probably only experience a few seconds of downtime when applying a heuristic solution approach for their placement.

Conclusion

Cloud computing promises high functional flexibility and cost-savings, but consumers also face a loss of control over service quality. Therefore, cloud providers usually offer quality guarantees in the form of SLAs. However, cloud

consumers have very limited means for verifying the compliance to prior negotiated SLAs in a reliable manner.

In this research report, we have presented an intermediary-based solution for SLA management, in which a trusted cloud broker conducts monitoring tasks on behalf of consumers. In this respect, the reliability of the monitoring components not only depends on the monitoring itself, but is also affected by the reliability of the monitor locations. Therefore, we have developed different optimization approaches for robust monitor placement. The evaluation revealed that an exact solution approach is not applicable in practice due to its high computational complexity. In contrast, our heuristic solution approaches permit a tremendous reduction of computation time, while their solution quality is very close to the exact approach.

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Research Report

How Status Shapes Objectivity in User-Generated Content

THIS PAPER PROVIDES EMPIRICAL EVIDENCE ON THE IMPACT OF REVIEWER STATUS ON THE OBJECTIVITY OF HIS CONTRIBUTIONS IN ONLINE COMMUNITIES. WHILE PREVIOUS RESEARCH INDICATES THAT USER-GENERATED ONLINE REVIEWS GUIDE CONSUMER DECISION MAKING, LITTLE IS KNOWN ABOUT DRIVERS OF THE ACTUAL REVIEW GENERATION PROCESS. UTILIZING A DATA SAMPLE COVERING 413,077 REVIEWS POSTED OVER 12 YEARS ON TRIPADVISOR.COM, WE FIND THAT WITH INCREASED USER STATUS, REVIEW OBJECTIVITY INCREASES. THUS, WE CONTRIBUTE TO THEORY BY GENERALIZING THE SO-CALLED "POPULARITY EFFECT" TO A MULTI-DIMENSIONAL "STATUS EFFECT".

Christian Janze

Introduction

User-generated online reviews are an important asset for online retailers as they attract customers and directly influence product and service sales figures (Chevalier and Mayzlin, 2006; Forman et al., 2008). Consequently, the question of what makes reviews helpful has become central for information systems (IS) researchers in order to understand which factors lead to increased review diagnosticity (Mudambi and Schuff, 2010). Previous work found that review aspects such as review depth or a review's readability influence the perceived review helpfulness (Ghose and Ipeirotis, 2011).

Although the importance of user-generated online reviews as well as the question of what

Michael Siering

makes them helpful is well-recognized in IS literature (Mudambi and Schuff, 2010), the question of why a specific online review is written in a specific manner is not thoroughly addressed yet. Therefore, it is important to understand whether the writing style of users remains constant over time or whether their behavior changes with increasing experience in generating online reviews.

Goes et al. (2014) provide first evidence on behavioral changes of users contributing content in online communities and show that more popular users provide more objective online product reviews (measured by a decrease in emotionality): the so-called "Popularity Effect". However, their study is based on a platform which offers users the possibility to follow other users. They utilize

these connections between users to measure a user's popularity. In contrast, we argue that such a behavioral change is caused by an increased status on the platform – which is a multidimensional construct entailing reviewer specific, third party specific, and review specific aspects.

Thus, we state the following research questions:

- Does the proposed popularity effect hold true (i.e., is measurable) for platforms where it is not possible to follow other users?
- If the proposed popularity effect is measurable, is it caused by an increase in status due to increased experience on the platform?

To investigate these research questions, we analyze which factors drive the objectivity expressed in online service reviews by means of a sample of 413,077 reviews concerning New York City based restaurants posted from May 5th, 2003 to April 8th, 2015 on TripAdvisor.com.

Research Methodology

Based on the Hawthorne effect (Adair, 1984), functional role theory (Biddle, 1986), signaling theory (Spence, 1973, 1974), and the findings by Goes et al. (2014), we argue that users send signals to other users in order to reduce uncertainty related to their position on the platform and thus to increase their status within the community. Consequently, we focus on different signals indicating the status of a specific user in an online community: review specific signals (review experience and information disclosure), third party specific signals (social feedback) as well as review specific signals

(review depth). We formulate four research hypotheses regarding each signal mentioned:

First, users can signal higher status within an online community with an increased number of contributions. According to functional role theory, a user acts according to his increased status and provides less emotional online reviews since this would be expected from an expert (Goes et al., 2014). Thus, we hypothesize: *H1: Increased review experience decreases review emotionality.*

Second, an increased level of information disclosure can be seen as a signal to reduce the uncertainty perceived by other users – and thus as a factor positively influencing user status (Donath, 2008). We assume that users disclosing more information about themselves contribute more objective online reviews as they want to be perceived as experts in the community. In accordance with the functional role theory and the Hawthorne effect, we thus hypothesize:

H2: Increased information disclosure decreases review emotionality.

Third, many online review platforms allow users to evaluate the contributions of other users by voting on the perceived helpfulness of reviews (Mudambi and Schuff, 2010). An increased level of social feedback displayed next to the online review might be associated with an increased perception of responsibility for the online community. According to functional role theory, it can be assumed that this increased level of responsibility leads to the provision of more objective

	Model A		Model B		Model C	
	Coefficient	p-Value	Coefficient	p-Value	Coefficient	p-Value
(Constant)	0.7938	0.000***	0.8413	0.000***	0.7981	0.000***
restRevs	-0.0002	0.000***	-	-	-	-
tripTit	-	-	-0.0191	0.000***	-	-
citRevs	-	-	-	-	-0.0009	0.000***
hasLoc	-0.0235	0.000***	-0.0099	0.006**	-0.0200	0.000***
extUsr	0.6844	0.000***	0.6435	0.000***	0.6802	0.000***
socFeed	-0.0088	0.000***	-0.0064	0.000***	-0.0073	0.000***
desWC	-0.0012	0.000***	-0.0012	0.000***	-0.0012	0.000***
daysPassed	0.0000	0.000***	0.0000	0.000***	0.0000	0.000***
F-Value	5,235	0.000***	5,333	0.000***	5,266	0.000***
Adjusted R ²	0.0709	-	0.0721	-	0.0713	-

* p < 10%, ** p < 5%, *** p < 1% [White-corrected standard errors]

Table 1: Regression Analysis (n = 411,440 Complete Observations)

online reviews as the user behaves according to his role as an expert. Transferring this to the level of review emotionality, we hypothesize:

H3: Increased social feedback decreases review emotionality.

Fourth, review diagnosticity theory suggests that the provision of more comprehensive online reviews has a positive effect on the perceived helpfulness of a specific review (Mudambi and Schuff, 2010). In addition, providing more comprehensive online reviews takes more time and forces the reviewer to take either more product or service characteristics into consideration and/or to think about them more extensively before posting the review. Therefore, we hypothesize:

H4: Increased review depth decreases review emotionality.

Results

To evaluate our research model, we performed three OLS regressions as shown in Table 1. The dependent variable is the absolute value of the z-score of review emotionality. While the first regression model (A) is our base setup, the second (B) and third model (C) represent robustness checks.

First, research hypothesis H1 suggests that an increased review experience decreases review emotionality. Considering regression A as presented in Table 1, we can accept this hypothesis as the total number of restaurant reviews a reviewer has written (restRev) has a negative effect on review emotionality, which is statistically significant at the 1% level. Furthermore, models B and C show that the same holds true if the

review experience is measured by the TripAdvisor assigned title (tripTit) and the number of cities a reviewer has written reviews in (citRevs).

Second, research hypothesis H2 states that increased information disclosure of a reviewer decreases review emotionality. Empirical results presented in Table 1 support this hypothesis, as the presence of the reviewer's location in the profile (hasLoc) is negatively associated with review emotionality. This effect is statistically significant at the 1% level. Again, robustness models B and C yield the same and statistically significant results at the 5% and 1% level, respectively.

Third, research hypothesis H3 predicts that increased social feedback (socFeed) decreases review emotionality. According to our results presented in Table 1, we can accept this prediction for both the base model A as well as the robustness models B and C. The coefficient of the socFeed variable is always negative and statistically significant at the 1% level.

Fourth, research hypothesis H4 suggests that an increased review depth decreases review emotionality. Indeed, regression model A shows that the number of words used in a review (desWC) decreases review emotionality, whereas this relationship is statistically significant at the 1% level. This observation holds true for robustness models B and C.

Taking into account the control variables, it can be observed that reviews posted via a third-party app (such as Facebook) are more emotional (extUsr),

which is statistically significant at the 1% level in models A, B, and C. This indicates third-party app users tend to post more spontaneously. Furthermore, it appears that the number of days passed (daysPassed) since the review was written has a small but statistically significant positive effect on review emotionality.

The adjusted R² of 0.0709 for regression model A shows that 7.09% of the variance is explained by our research model. Robustness models B and C yield very comparable results with an adjusted R² of 0.0721 and 0.0713. In addition, F-Values of 5,235 (Model A), 5,333 (Model B), and 5,266 (Model C) and their corresponding P-values suggest that the null hypothesis that every coefficient is zero can be rejected at the 1% level of significance.

As our sample covers a very large amount of online service reviews which might influence the statistical significance levels observed, we also apply a multitude of different analytical techniques described by Lin et al. (2013) to account for the p-Value problems arising from large sample sizes. The distribution of the p-Values as well as the bounds of the confidence intervals show that our results remain robust with much smaller sample sizes (and also different temporal distributions).

Discussion

We show that the status of users within an online community influences the level of emotionality and thus the level of objectivity expressed in their reviews. Consequently,

beyond an effect of general user popularity, we observe a more general “Status Effect” within our analysis. Building upon the Hawthorne effect and functional role theory, users send signals in order to be perceived as an expert in the community and act according to their desired expert role by providing less emotional and thus more objective online service reviews.

Our results show that an increased number of restaurant reviews written by a reviewer, an increased number of cities a reviewer has written reviews in, and a higher title TripAdvisor assigns to its users (used as proxies for the level of experience a user signals to increase his status) cause a decrease in review emotionality. Furthermore, we find that an increased level of information disclosure is related to the provision of more objective reviews. In addition, we reveal that an increased level of social feedback of third parties and review depth lower the level of emotionality and thus yield more objective reviews.

Taking into account the control variables leads to additional important insights: First, the usage of a third-party app is associated with a significant impact on the level of emotionality expressed in online service reviews. It can be assumed that they post the service review shortly after purchase, i.e., after visiting a restaurant and making a particularly good or bad experience. Second, the number of days passed since the review was written has a positive influence on the level of emotionality observed. This could be explained by the fact that internet users in general became more mature over the twelve years of our study.

Conclusion

Our results (Janze and Siering, 2015) reveal that an increase of a user’s status on the platform is associated with behavioral changes. First, our findings suggest that with an increased reviewing experience as well as increased information disclosure, the contributed online service reviews become less emotional and thus more objective. Second, more positive social feedback as well as an increased review depth also lead to less emotional and thus more objective online service reviews. Consequently, we show that an effect similar to the popularity effect as observed by Goes et al. (2014) exists for online service reviews on platforms where users are not able to follow each other: if contributors have a higher status on a platform, they produce more objective content. Therefore, we extend the previous understanding of Goes et al. (2014) by introducing the more generalized “Status Effect”. Our results are primarily relevant for online retailers as they help to identify users providing the most objective online service reviews and thus generating value for their customers and, in consequence, increasing future turnover and profit generated on their platforms.

Within future research, we plan to include other cities as well as physical products instead of services. Such an analysis could also include additional socioeconomical user characteristics such as gender. Furthermore, we plan to conduct an additional study regarding the influence of using a third-party app for providing online service reviews on the level of emotionality expressed.

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Insideview

Innovation & Digitalization within the Financial Sector

INTERVIEW WITH FRANZ WELTER

Mr. Welter, the digitalization is shaking up the banking sector. Why is this topic so important?

The digitalization has increased the possibilities for financial services and lowered the barriers of entry. Technology allows FinTech start-ups to offer new products and services to the consumer. This has shifted the whole sector. Today, banks are already confronted with these new players along their entire value chain. This development offers numerous chances for co-operation and technology transfer. Simultaneously, banks are looking for ways to implement the innovative working methods of the small start-ups into their organization and company culture to enhance their own innovation activities.

Where do you see the main challenges and opportunities of innovation and digitalization?

These topics don't allow the classical "silo thinking" anymore. Instead, they address the

whole value chain equally. Therefore, it is critical to deal with many topics simultaneously and keep single tasks as well as the big picture in mind. The main opportunities are additional high-value products and services for clients and the enhancement of current business processes.

Many banks are still struggling to find the right "FinTech-Strategy". They consider FinTechs primarily as a threat. How does the DZ BANK perceive the FinTech sector?

We have an open mind about FinTechs. There are many different approaches to deal with these new players. Co-operation with mutual benefit is one of them. In addition to that, creating own FinTechs could also be an option. Finally, there is the possibility of an investment. We constantly monitor the market and have already built up relations to various start-ups. Currently, we have a strategic partnership with the Incubator Axel Springer Plug & Play which allows us to



Franz Welter
Vice President in Innovation and Digitalization
DZ BANK

exchange ideas and helps to stay up-to-date to the latest market developments.

The main advantages for FinTechs are their innovative way of working as well as their speed in bringing their products and services to the market. What could banks do to catch up?

Topics like "Connected Company" and "Social Business" need to be discussed and introduced within organizations. Internal communication and the availability of information are key value drivers. Banks need internal platforms which are transparent and which offer their employees the opportunity to participate. Moreover, employees get real-time access to the information they need. The main challenge is the implementation of these platforms.

Another innovative working method which could be used are so called hackathons. Hackathons are innovative methods to collab-

orate and develop projects and solutions. Together with the Fiducia & GAD IT AG and the ADG, the DZ BANK has recently finished its first "Genohackathon" in Munich where 100 employees from different companies of the GFG participated and created several prototypes for innovative products and services.

What should banks primarily focus on to address the topics innovation and digitalization and to ensure future success?

Internal company structures are a key success factor. Creating a company culture which is open minded and which motivates employees to participate, increases the internal acceptance towards innovation. This in turn raises the likelihood of a quick implementation of new ideas. The development of digital competencies among employees is an additional key success factor.

Thank you for this interesting conversation.

Infopool

News

VHB Best Paper Award Nomination

Our alumni Prof. Robert Wayne Gregory (layer 1) and Prof. Jan Muntermann (layer 2) are nominated from the German Academic Association for Business Research for the prestigious VHB Best Paper Award. They received the nomination for their work on "Paradoxes and the Nature of Ambidexterity in IT Transformation Programs" published in the Journal "Information Systems Research" together with Mark Keil and Magnus Mähring.

Ph.D. candidate M.Sc. Janek Benthous Takes a Position at Union Investment

After three years of work at the E-Finance Lab Ph.D. candidate M.Sc. Janek Benthous (layer 1) has taken a position as innovation manager at Union Investment Gruppe in Frankfurt. We highly appreciate his hard and enduring work during his employment. We wish him all the best for his future.

New Research Training Group Privacy and Trust for Mobile Users Established

At Technische Universität Darmstadt, a new DFG research training group on "Privacy and Trust for Mobile Users" has been established. The group will conduct research into novel mobile devices that enable maximum control for the user and follows the vision of customizable privacy protection and better reconciliation of privacy-opposing economic or societal interests.

New Member in the Council of the E-Finance Lab

We are happy to welcome Markus Koerner (IBM) as a new member in the Council of the E-Finance Lab. Markus Koerner takes the place of Gregor Pillen in the Council. We thank Gregor Pillen for his significant support and the new member Markus Koerner for his engagement.

Prof. Skiera received IBM Faculty Award

Prof. Skiera (layer 3) received the IBM Faculty Award at this year's Spring Conference of the E-Finance Lab. IBM promoted Prof. Skiera's curriculum innovation that aimed at increasing the use of machine learning techniques in research and teaching. In his class "Small and Big Data Analysis", he used several data sets, including one of a major German retail bank, to compare econometric techniques with machine learning techniques.

Joint Spring Conference of the E-Finance Lab and IBM



Markus Koerner (IBM) and Prof. Wolfgang König (EFL) at the EFL Spring Conference 2016

For the first time, the E-Finance Lab and IBM jointly hosted the Annual Spring Conference. Participants had the chance to discuss the topic of "Identifiers and Identification Management in the Financial World and Beyond – Requests, Solutions, and Applications" with experts from industry and academia such as Joseph Tracy (Vice President of the Federal Reserve Bank, New York), Gerard Hartsink (Chair of the Global Legal Entity Identifier Foundation, Basel), and John King (Professor at the University of Michigan, Ann Arbor).

Details on the conference as well as the speakers can be found on our website. Here, also videos and slides of all presentations are provided. Please, visit:

<http://www.efinancelab.de/events/conferences/spring-conference-2016/> (→events →conferences →Spring Conference 2016)

Selected E-Finance Lab Publications

Benthous, J.; Risius, M.; Beck, R.:

Social Media Management Strategies for Organizational Impression Management and their Effect on Public Perception. Forthcoming In: The Journal of Strategic Information Systems (JSIS), 2016.

Clapham, B.; Zimmermann, K.:

Price Discovery and Convergence in Fragmented Securities Markets. In: 32nd International Conference of the French Finance Association, 2015.

Haferkorn, M.; Quintana Diaz, J.:

Seasonality and Interconnectivity within Cryptocurrencies – An Analysis on the Basis of Bitcoin, Litecoin and Namecoin. In: Lecture Notes in Business Information Processing (LNBIP), 217, Ed.: A. Lugmayr, pp. 106-120; Springer International Publishing, Switzerland.

For a comprehensive list of all E-Finance Lab publications see <http://www.efinancelab.com/publications>

Infopool

RESEARCH PAPER: DO PRICES REVEAL THE PRESENCE OF INFORMED TRADING?

In this paper, Collin-Dufresne and Fos use a comprehensive data sample of trades by Schedule 13D filers, who acquire beneficial ownership of more than 5% of publicly traded securities in a public company. By studying several measures of adverse selection, this paper reveals the presence of informed trading. The authors find on days when Schedule 13D filers accumulate shares, both high-frequency and low-frequency measures of liquidity indicate higher stock liquidity and prices tend to move up. The authors classify the pre-filing trades by Schedule 13D filers as informed and find empirical evidence that adverse selection measures are not robust to informed trading by strategic traders with long-lived information who can choose when and how to trade.

Collin-Dufresne, P.; Fos, V.

In: *The Journal of Finance*, 70 (2015) 4, pp. 1555-1582.

RESEARCH PAPER: CLABACUS: A RISK-ADJUSTED CLOUD RESOURCES PRICING MODEL USING FINANCIAL OPTION THEORY

One of the important reasons for the increased popularity of cloud computing is its ease and accessibility of shared resources. However, cloud consumers would like to pay a fair price for the resources while providers would like to make high profit for their services. Therefore, the authors present a quantitative approach to price cloud resources from both consumer's and provider's perspective. They propose the Clabacus (Cloud Abacus) architecture to compute cloud resource prices using concepts and algorithms from financial option theory, incorporating technological advances and other cloud parameters as well as using financial value-at-risk (VaR) analysis.

Sharma, B.; Thulasiram, R. K.; Thulasiraman P.; Buyya R.

In: *IEEE Transactions on Cloud Computing*, 3 (2015) 3, pp. 332-344.

New Newsletter Concept of the E-Finance Lab / EFL Quarterly Becomes Digital

The E-Finance Lab publishes a regular newsletter which appears quarterly and is distributed digitally via E-mail. This digital EFL Quarterly supplies our audience with new research results. Its focus is the description of two research results on a managerial level – complemented by an editorial, an interview, and some short news.

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