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# Editorial

# The Growing Role of IT in Real Estate Asset Management – The Appraisal Process as a Master Sample

Heiko Beck

Valuation of office buildings, shopping centers and hotel worth billlions of EUR and IT? Until recently there was little imagination in which manner IT solutions can support the important process of real estate asset management of open-ended real estate funds (OIF) in Germany.

Typical for many changes in financial services since the "financial crisis", regulation was the trigger. In 2011, the German Investment Act [§§ 77, 79] was amended with new rules changing the valuation cycle of retail OIF from an annual to a quarterly sequence becoming effective as of January 1st, 2013. In case of OIF, the valuation of assets must be undertaken by independent external surveyors which are acting for the regulated asset management company. The asset values are reflected in the daily calculated and published issue price of the fund, thus the valuation process is also a core process for the overall fund management.

The appraisals are not done by a single surveyor, but by a Committee of at least three experts (CoE). In addition to the quarterly valuation cycles, the term of the individual surveyor has been limited to 5 years. All in all, the number of valuations was

increased by 200%, not to mention more committee meetings and onsite visits of the CoE. Union Investment Real Estate has 325 assets in 24 investment countries with a value of 21 billion EUR. Thus, it was very clear from the outset that the new requirements could not be met without significant enhancements to processes and IT tools.

In 2012, Union Investment Real Estate started a project to develop a cost-efficient appraisal scheme compliant to the new rules, e.g. ensuring the independence of the surveyor. The goal was to cut the process as short as possible, keep process costs minimal and multiply the output. Compatibility with all other fund planning, controlling and accounting systems was also required.

As a first step, the project undertook an analysis of the existing appraisal process in order to identify the potential for optimization.

The process starts with the provision of all relevant information to the external CoE and ends with a final appraisal report by the CoE. All results are checked for plausibility by the fund manager in order to clarify any discrepancies in the assess-



ment of the value of the property investment. The former appraisal process took almost three months from preparation of documents to the final appraisal report. It included different calculation variants, meetings with the CoE, multiple data preparation and redundant data storage.

Consequently, it turned out that selected procedural adjustments would not be sufficient, a comprehensive automation of the process that is applied was inevitable.

The challenge was to provide optimized workflows, efficient and secure data handling. Therefore, Union Investment Real Estate moved to an integrated standard software solution consisting of the following components:

- Standard Application providing workflows, calculation engine, report generator, storage of relevant real estate asset data and distribution to the experts, administration.
- Secure Data Room including document storage for unstructured data that has to be made available to the experts (e.g., tenancy agreements) and is integrated via link into the application's user interface.

Heiko Beck
Chief Operating Officer
Union Investment Real Estate GmbH

Webbased Cloud – allowing collaboration with experts (data storage and exchange), who must have exclusive access to the data which is provided in a specific cloud linked to the application.

This set up ensures stringent process handling and high data quality and integrity. The Standard Application serves as a "single source of truth" for appraisal purposes and the determined property value is automatically available for the fund manager's accounting and controlling.

Due to highly standardized and automated processes and the consistent use of data, process time could be reduced to four weeks and additional regulatory costs were still significant but could be limited. The implemented IT solution is – with some further enhancements – also ready to address the upcoming new requirements resulting from the German Kapital-anlagegesetzbuch (KAGB), which will require two valuations for each asset worth more than 50 Mio. EUR on a quarterly basis from July 2014 onwards, thus almost doubling the number of appraisals once more.

# Research Report

# **Customer Equity Reporting**

WHARTON SCHOOL OF BUSINESS AT UNIVERSITY OF PHILADELPHIA HAS JUST LAUNCHED AN 8-WEEK ONLINE PROGRAM "STRATEGIC VALUE OF CUSTOMER RELATIONSHIPS - ONLINE" TAUGHT BY MARKETING PROFESSOR AND AUTHOR PETER FADER. HE INVITED PROFESSOR SKIERA, DIRECTOR OF THE E-FINANCE LAB, TO PHILADELPHIA TO LEARN ABOUT HIS THOUGHTS ON "CUSTOMER EQUITY REPORTING". THIS ARTICLE SUMMARIZES SOME OF PROFESSOR FADER'S QUESTIONS AND PROFESSOR SKIERA'S REPLIES.

# Peter Fader: What is the basic idea of Customer Equity Reporting?

Bernd Skiera: Current accounting systems and most performance measurement systems are backward-looking. That means that they summarize what has happened in the past, say the past 12 months. They do not capture what is going to happen with current customers in the future. That is problematic because we all know that it is easy to increase current profit at the expense of future profit.

For example, a bank can reduce customer service and save substantial cost. Customers will recognize this but most of them will not react immediately. This slow response leads to fairly stable revenues while costs decrease. As a result, current profit increases. Yet, customers will adapt their future behavior and will do less business with the bank in the future.

Thus, future profit will decrease and the increase in current profit is unlikely to compensate for this decrease in future profit.

Another example is a cut in marketing costs, in particular concerning efforts in acquiring new customers. The decrease in marketing costs leads to fewer new customers. Quite often, new customers add very little to the profit line in their acquisition period because acquisition costs are often as high as their first year profit. Thus, the result of a decrease in marketing efforts for new customers is an increase in current profit. However, next year's profit is certainly lower because of the lack of new customers.

These examples illustrate that we need forward-looking systems with metrics that measure both current profit and future profit. One such a metric is customer equity (see also Wiesel et al., 2008).

# What are the key metrics to calculate customer equity?

The key metrics to calculate customer equity are the number of current customers, the profit per customer, the retention rate, the acquisition cost per customer and the retention cost per customer. The retention rate measures the probability that a customer who did business with you in the previous period will continue to do business with your company in the current period. For example, if you had 100 customers in the previous period and 80 of them continue to do business with you in this period, then the retention rate will be 80% and the churn rate 20%. Retention rate and churn rate will always add up to 100%.

The acquisition cost per customer is the cost to acquire a customer and the retention cost per customer is the cost to keep the customer. Usually, the average acquisition cost is much higher than the average retention cost. In the banking industry, for example, acquisition costs are very high. You frequently pay for a click that refers customers to your website 2-5 Euros. In case of a conversion rate of 1%, you have acquisition costs that are between 200 and 500 Euros (see Skiera and Nabout, 2013).

## How do you calculate customer equity?

Customer equity, here defined as the value of the current customer base, can be easily calculated by summing up the long-term value of all current customers. A simple approach is to determine the long-term value of an average customer (frequently called customer lifetime value) and then to multiply this value by the number of current customers. A more advanced approach is to calculate the value of each customer and then the sum of these values. In either way, we end up calculating the long-term value of the current customer base, reflecting customer equity.

## How do you calculate customer lifetime value?

Customer lifetime value consists of the current and the future value of one particular customer. Current value is the current profit of the customer and usually already captured by current accounting systems. The calculation of the future value is certainly much more difficult. One simple approach is to use the retention rate as a metric that indicates the likelihood that the customer will continue to remain a loyal customer in future periods. For example, if the retention rate is 80%, then there is a probability of 80% that the customer remains a loyal customer in the next period, a probability of 80% times 80%, thus 64% of remaining a loyal customer for the next two periods, a probability of 80% times 80% times 80%, thus 51.2% of remaining a loyal customer for the next three periods and so forth.

From a mathematical point of view, these probabilities represent an infinite series that enable us to come up with simple formulas to calculate the long-term value that relates to these probabilities. Together with the discount rate, they allow us to determine how much higher long-term value is compared to the short-term



Bernd Skiera (University of Frankfurt, E-Finance Lab) and Pete Fader (Wharton School of Business)

value. Stated differently, we can use profit per customer, the retention rate and the discount rate to calculate the present value of a customer, called customer lifetime value.

# Don't we need to consider different segments of customers?

Sure. The logic that I just outlined should be applied for each segment of customers if those segments differ very strongly. In a current research project with a major German bank, we also derive the value of the current customers for each of their branches.

# For which companies is customer equity most useful?

It is useful for all companies that aim at creating long-term and, thus, sustainable value, and those

who have many customers. If you have very few customers, then you tend to have very close relations to those few customers and you know them very well. Your gut feeling is frequently good enough to determine changes in long-term value. If you have thousands of customers, then you cannot maintain close relations with all of them and a more formal system like Customer Equity Reporting is certainly more appropriate.

## Can all companies determine customer equity?

You need to be able to determine the key metrics, which are the number of current customers, the profit per customer, the retention rate, the acquisition cost per customer and the retention cost per customer. That is usually not a problem for companies that can track the transactions of their customers. Financial

service providers, such as banks, are certainly in the position of doing so.

# How does Customer Equity Reporting relate to Customer Satisfaction or Net Promotor Score?

Customer Satisfaction, Net Promotor Score (NPS) and other comparable metrics are essential measures that serve as early warning indicators. The logic is that you are less likely to remain a good customer if you are less satisfied or less willing to recommend the bank. Thus, acting on these metrics contributes to making a business more sustainable. Yet, these metrics are frequently costly to measure and usually not available for every single customer.

An alternative to these survey measures is the analysis of transactional data, in particular for companies that benefit from repeat business with their customers. Among these are banks. They can track the activities of their current customers very well and develop indicators that reflect future development. A good customer analytics system makes it fairly easy to determine such metrics at very low cost.

# Why are still so many companies reluctant in reporting customer metrics?

There is a tradition in accounting and finance to not put much emphasis on customer metrics, which I consider to be a big mistake. It will change in the future for two reasons. First of all, stock-market listed companies will receive more questions from analysts and other stakeholders about their customer metrics so that

they will disclose more information about these metrics in their external reporting. Knowledge about how to effectively utilize these metrics will increase and banks will start to demand these metrics from other companies, in particular if these companies start to ask for loans.

The second reason is that top executives start to put these metrics and the resulting customer equity on their internal reporting systems. Initially, this may simply encompass small details such as replacing total profit by number of customers, profit per customer and estimates of retention rates. I would also recommend distinguishing between acquisition cost and retention cost instead of marketing and selling.

### Thank you very much for this interview!

# More information about the class of Professor Fader see

http://executiveeducation.wharton.upenn.edu/for-individuals/all-programs/strategic-value-of-customer-relationships?roie=1631&slx=tw14whsvc.

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# Research Report

# Building Social Capital via Microblogging in the Financial Services Industry

THE WAY IN WHICH PEOPLE COMMUNICATE AFFECTS THEIR RELATIONSHIPS, SOCIAL NETWORK STRUCTURES AND ULTIMATELY THE SOCIAL CAPITAL ACQUIRED THROUGH THEIR CONNECTIONS. SOCIAL CAPITAL IS A KEY FACTOR FOR THE PERFORMANCE OF INDIVIDUALS AND ORGANIZATIONS. THEREFORE, COMPANIES IN THE FINANCIAL SERVICES INDUSTRY INCREASINGLY IMPLEMENT SOCIAL MEDIA PLATFORMS TO FACILITATE COMMUNICATION AMONG EMPLOYEES AND TO LEVERAGE THE SOCIAL CAPITAL BENEFITS. ANALYZING THE INDIVIDUAL NETWORK STRUCTURES OF DIFFERENT COMMUNICATION TYPES, WE FIND THAT A MORE SELF-DISCLOSING COMMUNICATION TYPE ("MEFORMER") BENEFITS FROM A HIGHER EFFICACY IN BUILDING SOCIAL CAPITAL COMPARED TO A PRIMARILY FACTUAL-ORIENTED COMMUNICATION TYPE ("INFORMER").

## Marten Risius

#### Introduction

Social capital is considered a key factor for the performance of individuals as well as companies by enabling the creation and sharing of organizational knowledge (Nahapiet and Ghoshal, 1998). A growing body of literature has demonstrated that Enterprise Social Media (ESM) is a promising solution to support collaboration and relationship building among employees, which ultimately results in an increase in social capital (SC) (Ellison et al., 2011). Social capital is understood as the resource obtained through the relationships among people within social networks (Nahapiet and Ghoshal, 1998).

This study examines the building of SC via ESM

from a communication perspective. Specifically, we assume that the way in which users typically communicate within an enterprise microblogging platform (EMB) influences their network structure, which ultimately affects their SC. Therefore, we differentiate four different communication styles (CS) on the single message level, based on the content and tone of the message, and a user's overall communication type (CT), as an aggregation of the individual CSs expressed in the messages. Thus, we analyze a large data set of EMB messages and empirically abstract the two CTs of Informers and Meformers in accordance with existing IS literature about public Social Media (Naaman et al., 2010). Moreover, we assess the SC of

each user to examine how communication types differ concerning their efficacy in building social capital.

Regarding the CS, we analyze each message through the lens of the distinguished "communication square" model of Schulz von Thun (2008) which differentiates four styles of a message: factual information, self-statement, relationship indicator, and appeal. Furthermore, we analyze how the different use of ESM in terms of CTs might foster building of SC in organizations and compare these results to findings from public Social Media

# From communication styles to communication types

Based on the work on human communication, Schulz von Thun (2008) distinguishes four different CSs within any message in his seminal model of a "communication square". He proposes that, in general, any message contains information on four "sides" (in metaphorical terms of the communication "square"): the matter as such (factual information), the sender (self-statement), the receiver (relationshipindicator) and the intended impact (appeal). Although each message principally contains all four layers, it is acknowledged that people have different CTs based on which (combination of) CSs they address more explicitly (Schulz von Thun, 2008). In public Social Media, Naaman et al. (2010) identified the two different CTs of Informers and Meformers. In sum, Informers focus on distributing factual information in their Twitter messages while Meformers are preoccupied with sending "me now" messages about their mood or current activities. Accordingly, in public Social Media Informers are mentioned more often in other users' tweets, have more followers and more friends as compared to Meformers who, however, represent the majority of Twitter users. In terms of the "communication square" model, it seems reasonable to assume that Informers adopt more often the more objective CSs factual information and appeal, while Meformers would rely more on the rather subjective self-statement and relationship indicator CSs.

## Social capital in organizations

The concept of SC and its added value for organizations has attracted extensive attention in various social science disciplines over the past decades (Adler and Kwon, 2002). In this study, by analyzing the individual network structures derived from the relationships among the EMB users, we focus on the mechanisms that generate SC rather than its outcomes. Hereby, we adopt an egocentric approach focusing on the building of SC for the individual actor in a network (Putnam, 1995).

Following Nahapiet and Ghoshal [1998], we understand SC in terms of the three clusters: structural capital, relationship capital, and cognitive capital. Structural capital [StC] describes the overall patterns of whether and how people are connected within the network structure. Relationship capital [RelC], however, emphasizes

the quality of the personal relationships, which people have developed through interactions. Cognitive capital (CogC) comprises the common understanding and concepts shared by the different actors within a network (Nahapiet and Ghoshal, 1998).

# Empirical Study – Enterprise Microblogging The main goal of our analysis is to identify different communication types and compare them in regard to their SC within a financial institu-

tion's microblogging platform (see figure 1).

EMB is considered one of the most pervasive forms of electronic communication and is as such a promising technology for building social capital in organizations (Ellison et al., 2011). Our EMB data set was obtained from a leading international financial institution with globally over one hundred thousand employees. Ultimately, the data sample comprised 6,306 messages from 136 users.

First, we conducted a manual directed content analysis to discover which CSs users adopt on

different CSs in the communication square model (Schulz von Thun, 2008), we considered the CS of the messages as key concept for the coding categories. The operationalization of these CS categories was derived from the detailed descriptions of the specific CSs in the model (Schulz von Thun, 2008). Following the model's assumption that each message can principally contain all four CSs, we coded all styles apparent within each message.

an EMB platform. Based on the concept of four

Second, we performed a confirmatory cluster analysis depending on the CS of the messages a user posted. Cluster analysis allowed us to identify groups of communication types with minimal communication style variance within the groups but maximal across groups in order to derive distinct and meaningful clusters from the assimilation of the four CSs. The results proposed that a two-cluster solution best captured the CTs which is in accordance with findings from public microblogging (Naaman et al., 2010). Informers' messages contain significantly more factual information and appeals than those of Meformers. Meformers, on the contrary, communicate more self-statements compared to Informers. Relationship indicators did not differ between groups.

The individual StC was assessed through the focus on the network structure of the users. Several measures were applied which were generally based on the dyadic interactions in the EMB. To measure RelC, it is important to con-

sider the quality of mutual relationships. A major form of RelC for individuals engaged in ESM is their reputation built through trustworthiness, the mutual norm of reciprocity, and the number of followers. We considered the CogC in terms of shared concepts and attributes between users. Thus, the CogC estimates applied in this work were generally dependent on the individual's group membership. Each group captures some personal information such as occupations (e.g., "interns", "business analysts", "IT architects"), hobbies (e.g., "private pilots", "golf"), or interests (e.g., "apple products", "Japanese literature"), that can also be treated as social attributes. For each group, we computed the density of the emerging network as the number of interactions among unique group members relative to the number of all possible connections.

## **Empirical Analysis and Results**

We compared the previously established Me- and Informing groups concerning the various dimensions of SC. Furthermore, we included the nationality and EMB language code to control for cultural influences on SC building (Adler and Kwon, 2002).

To compare the two CTs we conducted a descriptive linear discriminant analysis (LDA), which allowed us to estimate the specific impact of each SC dimension and control variable simultaneously and thereby eliminating the risk of redundancy between variables. Thus, we used two separate LDAs with group

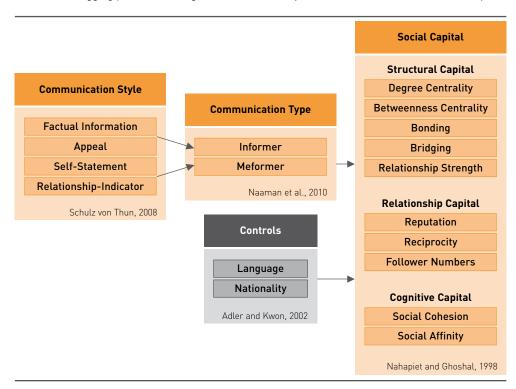


Figure 1: Underlying research model for analyzing the efficacy of different CTs to build SC

(Me- and Informers) as the two-class categorical dependent variable and (1) the different SC dimensions and (2) the overall SC clusters as the explanatory predictors. To also consider a higher level of analysis, we aggregated the single SC dimensions into the three SC clusters by conducting separate principal components analyses with Varimax rotation (see table 1). Furthermore, for each SC dimension and cluster, we conducted an a-priori ANOVA (analysis of variance) to test whether group differences exist between In- and Meformers at all.

CogC show that these aspects cannot be influenced through the CTs. It seems reasonable to assume that such shared concepts and attributes (like common hobbies or interests) are more strongly dependent on state-like attributes than on the communicative behavior. In sum, in our analysis we found substantial evidence for the SC building potential of Meforming in terms of StC and RelC as compared with Informers on the single dimensional as well as on the cluster level in ESM. However, concerning CogC we did not find an impact of CT.

Social Capital Aspects and Control Variables	Informer		Meformer		Groupwise comparison				
	$\bar{\mathbf{x}}_1$	(SD)	$\bar{\mathbf{x}}_2$	(SD)	λ	F	df1	df2	Sig.
Language					.982	2.33	1	128	> .05 <sub>n.s</sub>
Nationality					.999	0.071	1	128	> .05 <sub>n.s</sub>
Structural Capital (StC)	-0.262	(0.486)	0.46	(1.37)	.876	18.179	1	128	< .001***
Relationship Capital (RelC)	-0.217	(0.638)	0.4	[1.29]	.908	12.96	1	128	< .001***
Cognitive Capital (CogC)	-0.075	(0.896)	0.11	(1.135)	.992	1.062	1	128	> .05 <sub>n.s</sub>

**p-values**: p < .001\*\*\* very highly significant, p < .01\*\* highly significant, p < .05\* significant,  $p > .05_{n.s.}$  non-significant (two-tailed significance) **Statistics**:  $\bar{x}$  = group mean, SD = standard deviation,  $\lambda$  = eigenvalue, F = F-value, df = degrees of freedom, Sig. = significance

Table 1: Results of the group comparison between communication types

The analysis reveals significant higher scores of Meformers compared with Informers for the StC and RelC. The differences between CTs were not significant in CogC and in the controls. The result pattern was similar on the single dimensional level except for reputation which does not differ between groups as a RelC dimension. This means that Informer and Meformer do not differ in the quality of knowledge they share with others but that the significantly higher quality of relationships (RelC) of Meformers can be related to shared norms of reciprocity and higher popularity. The non-significant differences in

#### Discussion and Conclusion

The goal of this study was to analyze different communication types regarding their efficacy to build social capital via ESM platforms. Specifically, we focused on the individual CT and how social capital building differentiates between CTs. Therefore, we analyzed the communicative behavior of users and the social capital obtained within their social network structure.

Based on the established communication square model (Schulz von Thun, 2008) and in accordance with prior findings from Twitter (Naaman et al., 2010), we distinguish between Informers and Meformers.

Contrary to the preliminary findings from public microblogging (Naaman et al., 2010), Meformers exceed Informers in building SC within EMB. The potential of different CTs to build SC, however, is limited to the structural (size of and position within the network) and relationship capital (quality of connections), while reputation and the cognitive capital (shared concepts and common experiences) are not affected by the communicative behavior at all.

Due to the major relevance of SC for organizations (Adler and Kwon, 2002) and the potential of ESM to build SC (Steinfield et al., 2009) our findings are of significant relevance for practice. By showing the importance of self-disclosure and the associated Meforming in ESM, we respond to common practitioners' concerns regarding the waste of resources through microblogging. Our results regarding the building of SC show that it is generally helpful for individuals to adopt a more self-disclosing communicative behavior.

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# Insideview

# MiFID II - Across the Finishing Line?

INTERVIEW WITH MARKUS FERBER

On January 14th, 2014, the European Parliament, the Council, and the Commission reached an agreement on the revised rules of MiFID II/MiFIR. You were directly involved in this achievement as the European Parliament Rapporteur on MiFID II. In the process, some legislative dossiers reached quick agreement, while others were discussed more intensively. What legislative dossiers have been most difficult to reach a consensus on?

The MiFID file certainly belongs to the category of files that have been discussed very extensively. The initial proposal by the Commission was published in late 2011 and only in January 2014 we were able to reach a final political agreement. On the one hand, this is due to the fact that MiFID being the cornerstone of financial markets regulation in Europe is an extraordinarily complex file. On the other hand, especially the European Council had quite some problems finding common ground.

The new regulation will bring all forms of Algorithmic and High Frequency Trading under the umbrella of regulation. Will the new legislation prevent flash crash type events in Europe?

Algorithmic and High Frequency Trading are rather new developments which have proven to be quite dangerous if they remain unregulated. By introducing circuit breakers and a tick size regime, we will slow down HFT considerably and rule out the possibility of flash crashes appearing on European markets. As those ideas are pretty sensible, even US regulators started to adopt the provisions we applied on the MiFID file. So, Europe is leading in this particular area of financial market regulation.

MiFID II forces all forms of organized trading onto regulated venues. Will we see less OTC trading in the future or will financial institutions find creative ways around this again?



Markets have proven to be remarkably quick in adapting to new regulation and shifting towards unregulated areas. Apparently, this is something we wanted to avoid with MiFID. In fact, the whole idea of MiFID is that there shall be no market and no product that remains unregulated. This is the key reason why we introduced a new trading venue, the Organised Trading Facility (OTF), and favored a broad scope in order not to create any new loopholes. And I am very confident that we achieved this goal.

ESMA plays a key role in the definition of the detailed regulatory requirements. Where do you see the most important challenge for ESMA in the Level II process?

Obviously, it is impossible to solve each and every detail of such a complex file within the actual law text. Therefore, it is necessary that ESMA plays some part regarding the technical details. What is most important for me is that ESMA really sticks to what has been

Markus Ferber Member of the European Parliament

agreed on a political level and does not try to change the substance of the agreement. However, the ECON committee will monitor the process of drafting and implementing any Level II measures very closely and is willing to step in, in case ESMA steps over the line.

In 2017, the new MiFIDII/MiFIR will have to be applied in Europe. What will be fundamentally different on European financial markets three years on?

When MiFID II will be fully into force, financial markets in Europe will be more transparent, more resilient, more competitive, and thus more efficient. Furthermore, investors will be better protected and newcomers will have easier access to crucial market infrastructure. All this will contribute to financial markets that can serve the needs of the real economy in a more effective and more efficient way.

Thank you for this interesting conversation.

# Infopool

# News

## Prof. Dr. Roman Beck appointed at IT University Copenhagen

Prof. Dr. Roman Beck (layer 1) was appointed professor for "IT Innovation Management and Leadership" at the IT University Copenhagen. We are thankful for the many years of his excellent and productive work in the E-Finance Lab. He has enabled many Ph.D. students to graduate successfully and brought forth numerous high-ranked publications. We wish him all the best for his future.

## Dr. Nadia Abou Nabout appointed for Tenure Track at TU München

Dr. Nadia Abou Nabout was appointed for a tenure track position as Assistant Professor at the Technical University of Munich (TUM).

## **Successful Disputation**

Dipl.-Math. Oec. Timo Litty (layer 3) has received his doctoral degree on January 24th, 2014, with his dissertation "Essays on Private Equity and Household Finance". Congratulations!

### Two new members in the Council of the E-Finance Lab

We are happy to welcome Wolfgang Gaertner (Deutsche Bank) and Hagen Rickmann (T-Systems) as new members in the Council of the E-Finance Lab. They take the place of Hermann-Josef Lamberti and Simone Frömming in the Council. We thank Hermann-Josef Lamberti and Simone Frömming for their significant support and the new members for their engagement.

#### Professor Skiera awarded

Professor Dr. Bernd Skiera was awarded with the Sandra Dawson Visiting Professorship in Marketing, Strategy and Innovation at Judge Business School at University of Cambridge, UK and Fellow's Dinning Privileges at Sidney Sussex College.

## 2nd Ph.D. Course: Complex Systems Thinking and Systems of Systems Management in IS

This April, Professor König (layer 1) will hold a Ph.D. seminar in collaboration with colleagues from USA, Finland, Denmark and Lithuania on the field of complex systems for the second consecutive time. With the increasing complexity of social, technological, and organizational environments as well as their interrelations, complex thinking is emerging as a grand challenge in IS research. Through the repeated collaboration with distinguished researchers, the E-Finance Lab strives to be the forefront of this development.

### **Best Paper Award**

The team of authors Peter Gomber, Martin Haferkorn, and Kai Zimmermann has received the Best Paper Award of the 9th International Business and Social Science Research Conference in Dubai, United Arab Emirates, for the contribution "Securities Transaction Tax and Market Quality: The Case of France".

# Selected E-Finance Lab Publications

## Beck, R.; Pahlke, I.; Seebach, C.:

Knowledge Exchange and Symbolic Action in Social Media-Enabled Electronic Networks of Practice: a Multilevel Perspective on Knowledge Seekers and Contributors.

Forthcoming in: Management Information Systems Quarterly (2014).

## Gomber, P.; Jäger, B.:

MiFID: Eine systematische Analyse der Zielerreichung.

In: Zeitschrift für Bankrecht und Bankwirtschaft, 1 (2014), pp. 40-53.

## Hans, R.; Lampe, U.; Steinmetz, R.:

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In: Proceedings of the 6<sup>th</sup> International Conference on Cloud Computing (CLOUD), Santa Clara, USA, 2013.

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### Zimmermann, K.:

Price Discovery in European Volatility Interruptions.

Forthcoming in: Proceedings of 23<sup>rd</sup> European Financial Management Association, Rome, Italy, 2014.

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# Infopool

# **RESEARCH PAPER:** A TRUST-AWARE FRAMEWORK FOR EVALUATING SECURITY CONTROLS OF SERVICE PROVIDERS IN CLOUD MARKET-PLACES

Selection of secure and trustworthy cloud services has become a significant issue in emerging cloud marketplaces. Cloud providers' self-assessments are currently widely used, e.g., from the Cloud Security Alliance (CSA), and let cloud providers identify and publish their security controls. However, consumers are willing to be aware that the security controls are satisfied as claimed by the providers and are compliant with consumers' requirements. In this regard, Habib, Varadharajan and Muhlhauser propose a trust-aware framework to verify and evaluate these security controls considering consumers' requirements. The framework is based on security controls in the form of trust properties. The authors introduce a taxonomy of these properties based on their semantics and identify the authorities who can validate the properties. Furthermore, the authors demonstrate how the proposed trust-aware security evaluation framework could be applied in practice for consumers to determine trustworthy cloud providers in a competitive marketplace.

Habib, S. M.; Varadharajan, V.; Muhlhauser, M.

In: Proceedings of the 12<sup>th</sup> IEEE International Conference on Trust, Security and Privacy in Computing and Communications (2013), Melbourne, Australia, pp. 459-468.

# **RESEARCH PAPER:** What Drives Managerial Use of Marketing and Financial Metrics and Does Metric Use Affect Performance of Marketing Mix Activities?

So far, researchers have paid little attention to what drives managerial use of marketing and financial metrics and whether metric use is associated with marketing-mix performance. Therefore, the authors link firm strategy, metric orientation, type of marketing-mix activity, and managerial, firm, and environmental characteristics to marketing and financial metric use, which in turn are linked to performance of marketing-mix activities. They find that firm strategy, metric orientation, type of marketing-mix activity, and firm and environmental characteristics are more useful than managerial characteristics in explaining use of marketing and financial metrics and that use of metrics is positively associated with marketing-mix performance.

Mintz, O.; Currim, I. S. In: Journal of Marketing, 77 (2013) 2, pp. 17-40.

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

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