

efl quarterly

03 | 2013

AN E-FINANCE LAB PUBLICATION

# 10 years

## e finance lab

at the HOUSE OF FINANCE

Technology Makes Markets Safer

The Role of Information Overload to Participate in Social Networks

The Dark Side of ETFs and Index Funds

Productivity and Quality in IT Projects within the Financial Services Industry



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ESOT TRADING NETWORKS



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Gestaltung  
Novensis Communication GmbH  
Bad Homburg

3. Ausgabe, 2013  
Auflage 1.600 Stück

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Printed in Germany  
ISSN 1866-1238

## Editorial

# Technology Makes Markets Safer

Hauke Stars

In Germany, the act on High Frequency Trading (HFT) came into effect on May 15<sup>th</sup>, 2013. It introduces, among others, further transparency requirements for HFT firms, algorithmic traders, and operators of trading venues. The act also includes safeguards such as the introduction of volatility interruptions by trading venues that Deutsche Börse Group has already implemented for a long time. It makes Germany a pioneer in terms of HFT regulation as it sets measures in place ahead of Europe that currently plans to introduce safeguards in the context of the review of the Markets in Financial Instruments Directive MiFID (implementation planned for 2017).

The act is a response to the fact that the increase in trading speed associated with HFT is not only seen in a positive light by the general public. On the other hand, there is a strong demand for minimum latency on the part of our customers, which exchanges have an obligation to meet. However, they have at the same time an obligation to organize safe and orderly markets. Designing a trading system includes

finding a balance between these seemingly contrary requirements.

My firm belief is that beyond the robustness of all components and strict quality management of all development and operating processes, it is well-conceived functionality that makes the difference and makes anything resembling the so-called "flash crash" in the US unlikely.

Current discussions on stricter regulation for HFT do not only reflect fears on market "crashes" due to malfunctioning or even collapsing computer systems. What has also been described – though never been proven – is the integrity of markets being corrupted by high-speed traders which misuse their technological advantage for distorting and driving the market in their favored direction. It is clear that the latter cannot be prevented by capacity monitoring and upgrades and other technical means, but requires sophisticated watchdog functionality as well.

The chief mechanism in this regard is the so-called volatility interruption. One common



**Hauke Stars**  
Member of the Executive Board  
Deutsche Börse AG

approach taken by exchanges and imposed by regulators in order to deal with volatility has been the introduction of so-called circuit breakers. Circuit breakers bring the entire trading system to a halt. Volatility interruptions on Deutsche Börse's electronic trading systems, by contrast, combine price limits not with trading halts, but with a switch from continuous trading into auction mode – and not for the entire system, but for the individual instrument only, which experiences a sudden shift in prices. The auction concentrates existing liquidity, and it attracts further liquidity. This increase in liquidity improves the price discovery process, and thus initiates a return to smooth and orderly trading.

Volatility interruptions allow price discovery to continue and at the same time avoid a vicious circle of self-reinforcing price movements. Because price discovery goes on, investors can continuously get in and out of the market, in other words: the ease to turn an asset, e.g., a stock, into cash and vice versa is not hindered – and this is especially important in crisis situations.

June 10<sup>th</sup>, 2013, marked the beginning of a new era in electronic trading at Deutsche Börse AG: The entire product suite of Eurex, Deutsche Börse's derivatives subsidiary, has been transferred to a new trading architecture. What does this mean for our users? It means, among others: It is able to process up to four million electronic messages per second at gateway round-trip times of well below 300  $\mu$ s on average.

Although it is new in place in Europe, the new trading system can claim an impressive track record – in one of the most demanding business environments worldwide: Last year, we successfully implemented the new trading system at our US options subsidiary ISE. Since then, it has worked impeccably, and it has helped ISE stabilize and even increase its market share in the highly competitive market for US options. The new system is setting new standards in terms of stability and reliability on a global scale – also in comparison to the technologically most advanced exchanges and off-exchange trading platforms in the US and in Asia.

## Research Report

# The Role of Information Overload to Participate in Social Networks

SOCIAL NETWORKS ARE COMMONLY USED IN PRIVATE AND BUSINESS LIFE. DIFFERENT STUDIES OUTLINE THAT THIS TREND WILL INCREASE IN THE NEARER FUTURE. IN ORDER TO UNDERSTAND THE BEHAVIORAL INTENTION TO PARTICIPATE IN SOCIAL NETWORKS OF NEXT GENERATION EMPLOYEES, WE EXTENDED THE WELL-ESTABLISHED THEORY OF PLANNED BEHAVIOUR TO HABIT AND INFORMATION OVERLOAD. USING SURVEY DATA FROM 262 PARTICIPANTS, WE FOUND THAT THE OVERLOAD OF INFORMATION PLAYS AN IMPORTANT ROLE TO PARTICIPATE IN SOCIAL NETWORKS, BESIDES THE HABIT TO USE SUCH NETWORKS.

Sven Weber

Roman Beck

Wolfgang König

### Introduction

In recent years, a growing number of Internet users participating in social networks (e.g., Facebook) formed a social online community. Thereby, the people's social capital and communication with other people increases (Wellman, 2001). Social networks support people's communication, navigation, and relationship-building within the Internet, but at the same time change their communication and collaboration behaviors (Wellman, 2001). For instance, people are more likely to communicate via social networks rather than meeting another in person. Being different from a social group (e.g., friends and relatives), social networks depict a broader spectrum of collaboration. People within a social group are heavily interconnected and the boundaries of this group are

clearly defined. In contrast, social networks provide the participants the possibility to connect and collaborate with other people outside of their social group (Wellman, 2001). However, the popularity of social networks suggests that people find tools useful and desirable that provide them with slices of their social experiences online. Therefore, this study explores the behavioral intention to participate in social networks by conducting an empirical study among 262 university members representing the next generation of employees for companies. Most of the bigger companies are already using social network platforms in their daily business environment. Actually, they advocate the use of those enterprise social networks to increase the informal working culture (Eppler and Mengis, 2004).

Based on Lin (2006), we developed a structural model to measure the behavioral intention to participate in social networks. We included two innovative constructs, information overload and habit, to explore how these factors influence the behavioral intention to participate in social networks. Our research questions in the context of social networks are:

1. What are the drivers of the behavioral intention to participate in social networks?
2. How does information overload influence the intention to participate in social networks?

### Important Hypotheses

Several studies explored individual information overload in terms of different communication technologies (e.g., Reeves et al., 2008), but none of them has measured this concept as an own construct in a broader model. Hence, we based the conceptualization of this construct on the research of Kock et al. (2009). Concerning the impact of information overload on social network participation, we hypothesize:

1. The individual information overload negatively affects attitudes towards participation in social networks.
2. The individual information overload negatively affects the behavioral intention to use social networks.

There is an ongoing discussion in the extant literature due to the role of habit in people's behaviors. Limayem et al. (2007) demonstrated

that the concept of habit can be regarded as an indirect or direct effect to the people's behaviors. Indirectly habit influences behavior as a predecessor of people's intentions. Otherwise, habit can be seen as a direct effect on the behavior independent from people's intentions. Such a direct effect implies that habit is separate from a conscious decision-making process (Limayem et al., 2007). In sum, habit means to tend to perform behaviors automatically (Limayem et al., 2007). Regarding the effect of habit on participation in social networks, we hypothesize:

3. Habit positively affects attitudes towards participation in social networks.

### Data Collection and Sample Profile

In order to validate the research model and the associated hypotheses, a questionnaire-based field study was conducted. The participants were asked to respond to the survey by filling out an online questionnaire. Finally, 262 responses were completed and could be used as valid data points for the measurement calculation, which corresponds to a response rate of 13.1%.

### Structural Model

The results for the Partially Least Square estimation are calculated with SmartPLS with a path weighting scheme for the inside approximation. In addition, we used a bootstrapping procedure by generating 500 bootstrap samples as well as conducting the bootstrap procedure to test the significance of the path estimates, factor loadings, and weights.

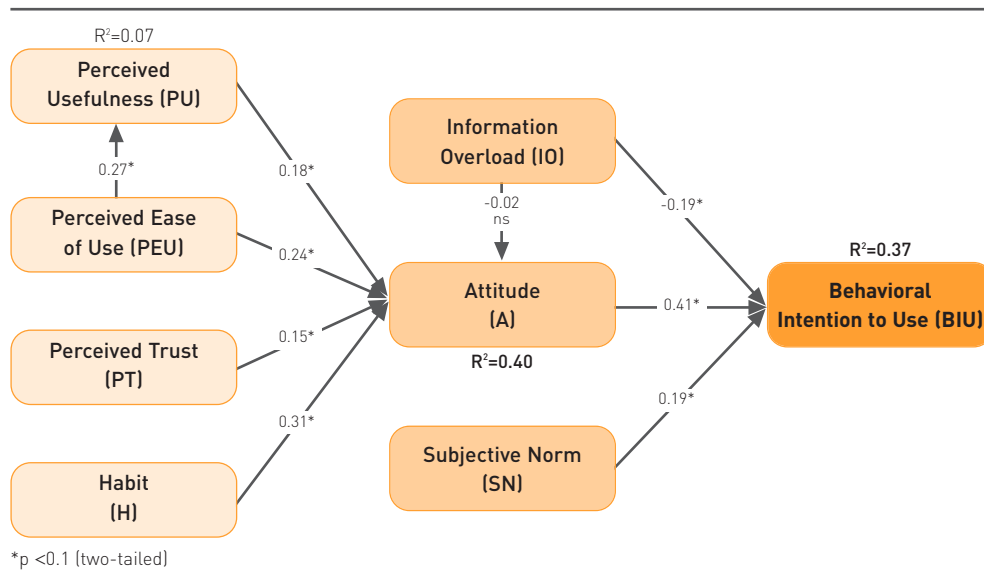


Figure 1: Estimated structural model

Figure 1 presents the results of this estimation and outlines that all path coefficients are above the minimum of 0.1. The influence of information overload on the attitude of the participants is not significant according to the survey data. The squared multiple correlations ( $R^2$ ) depict the explanatory power of the structural model. Thereby, it is important that these  $R^2$  are above the minimum of 0.33. In consequence, the model explains a moderate value of variance for the dependent latent variables.

#### Discussion of the Results

Theoretical implications that we found are that attitude towards behavior depends not only on the perceived usefulness, perceived ease of use, and perceived trust, but also on the habit to use social networks (Limayem et al., 2007).

Thereby, this habit has the strongest influence on the attitude. If an individual is used to participate in social networks, there will be a positive attitude to these social networks. With this outcome, we prove that habit cannot only be regarded as an indirect effect on the people's behaviors. Our statistical findings outline that habit can be measured as an own construct and thereby support the research of Limayem et al. (2007).

In contrast to Lin (2006), we found that subjective norm has a statistically significant influence on the behavioral intention to use social networks. Obviously, subjective norms, or the social environment of the participants, have a significant influence on the acceptance of social networks. Social networks are solely

valuable for an individual if other people are also participating in these networks. Otherwise, the social network would not make any sense. This outlines the ongoing trend to an increasing use of social networks.

We included the innovative construct of information overload in this context (Kock et al., 2009). We found a significant negative effect on the behavioral intention to use social networks, but not on the attitude of the participants. The more information an individual receives in social networks, or the more this individual is committed to check for incoming information, the more overloaded the individual is (Eppler and Mengis, 2004). This fact directly influences the plan to participate in social networks in a negative way.

The practical implication of our research is that information overload has to receive attention in modern society. Next generation employees are already used to social networks, but are also overloaded from all the information they get. Companies have to take this into account and should implement measures against an ongoing information overload. One example for possible measures against an ongoing information overload is provided by Reeves et al. (2008). They explored the phenomenon of information overload in terms of employees' e-mail usage. Thereby, they introduced a kind of marketplace and an artificial currency for every information exchange. The setting forces senders to evaluate the value of information of a message before clicking 'send'.

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## Research Report

# The Dark Side of ETFs and Index Funds

RECENTLY, PASSIVE ETFs AND INDEX FUNDS HAVE BECOME POPULAR AMONG INDIVIDUAL INVESTORS. IN OUR STUDY, WE INVESTIGATE WHETHER INDIVIDUAL INVESTORS BENEFIT FROM USING THEM. WITH DATA FROM ONE OF THE LARGEST BROKERAGES IN GERMANY, WE FIND THAT INDIVIDUAL INVESTORS WORSEN THEIR PORTFOLIO PERFORMANCE AFTER USING THESE PRODUCTS IN COMPARISON TO NON-USERS. SINCE THESE SECURITIES MAKE MARKET TIMING EASIER, FURTHER ANALYSIS REVEALS THAT THE DECREASE IN USERS' PORTFOLIO PERFORMANCE IS PRIMARILY DUE TO BAD MARKET TIMING.

Utpal Bhattacharya

Steffen Meyer

Simon Kaesler

Benjamin Loos

Andreas Hackethal

### Introduction

Index-linked securities, namely passive Exchange Traded Funds (ETFs) and index funds, have become increasingly popular over the last twenty years (see Figure 1). The first retail index mutual fund was launched in 1976 by John Bogle at Vanguard. The First Index Investment Trust, derisively known as "Bogle's Folly", was based on the S&P 500 index. By 2011, the assets of the Vanguard index funds, modeled on the S&P 500 Index, totaled USD 200 billion (Bogle, 2011). Of households that owned mutual funds, 33% owned at least one index mutual fund.

The first ETF was launched in Canada in 1990. As Figure 1 points out the market for ETFs in Europe also skyrocketed over the last decade.

In 2010, there were more than 1,000 ETFs available to investors and invested assets were above USD 250 billion as the World Federation of Exchanges states. For 2009 Deutsche Börse reported a turnover in ETFs in Germany almost as high as the German stock turnover. In 2012, there were 4,731 ETFs worldwide with USD 2 trillion in assets (the same size as hedge funds), accounting for 16% of NYSE trading volume.

Our study investigates whether these index-linked securities have benefited individual investors and tries to reveal reasons, provided that we find that these products are not helpful. This is an important question to answer, considering how popular these index-linked securities are becoming among individual

investors. In the US, many companies actively seek ways to include ETFs in 401(k) defined contribution pension plans (Ensign, 2012) and even some regulators – both in the US and in Europe – are promoting ETFs to individual investors.

### Background & Literature

Classical finance theory would suggest that individual investors benefit from using index-linked securities like ETFs. These products invest in well-diversified security baskets, and the benefits of diversification have been formalized in seminal papers in finance: Markowitz (1952) suggested we diversify by buying

optimal portfolios and Tobin (1958) later added the argument that we require only two optimal portfolios. In his capital asset pricing model Sharpe (1964) concluded that one of these two portfolios was the market portfolio. French (2008) measured the benefits of passive investing and concluded that "the typical investor would increase his average annual return by 67 basis points over the 1980-2006 period, if he switched to a passive market portfolio." Given that individual investors significantly under-diversify and over-trade, benefits of diversification and passive investing may be even larger for them than for institutional investors. In addition to under-

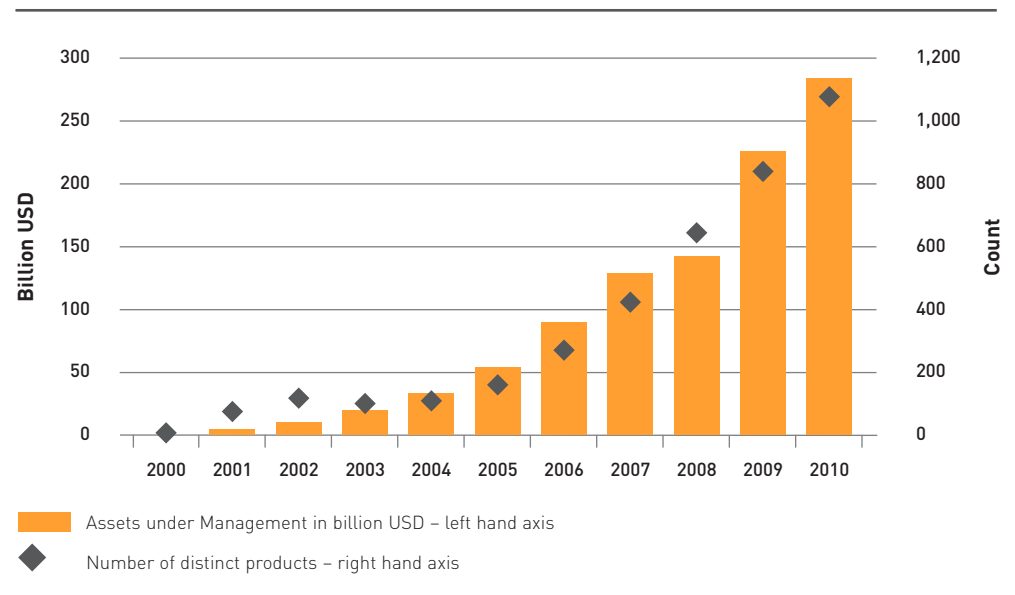


Figure 1: ETF market development in Europe; Source: Blackrock

diversification and over-trading, the portfolios of individual investors who participate in equity markets are typically concentrated in companies whose headquarters are close to the home of an investor (“home bias”, e.g., Calvet et al., 2007). In the presence of these investment “biases”, individual investors face a high potential of performance improvement by using passive investment products.

The upside potential of passive investment products is especially pronounced for ETFs, because ETFs offer some additional advantages over open-end index funds. First, the fees of ETFs are lower compared to the funds.

Second, ETFs trade in real time. Third, ETFs may have tax advantages in some countries.

On the other hand, it is also conceivable that individual investors might not benefit from using index-linked securities like ETFs. There is some evidence that investors may not be using these products wisely. The first dimension of this evidence addresses fund fees. Hortaçsu and Syverson (2004) found large fee differences, although the analyzed index funds were otherwise highly comparable. Similarly, Elton et al. (2004) showed that S&P 500 index funds have become standard products that differ from

each other principally in price. They found that investors in these funds irrationally prefer more expensive funds with the possible explanation that they fall for successful marketing rather than choosing by low expenses. Choi et al. (2010) confirmed this behavior in an experiment. They provided evidence that more financially sophisticated investors pay fewer fees. Second, it is possible that although index-linked securities force the individual investor to buy a basket and therefore curb his temptation to pick stocks, these securities may enhance the investor’s temptation to time the underlying index. In Germany, for example, by 2009, the turnover in ETFs (data obtained from Deutsche Börse) had become about the same as the turnover in stocks (data obtained from the World Federation of Exchanges). Third, it seems conceivable that investors may find it difficult to choose an ETF or an index fund because the choice set contains securities linked to more than 200 different underlying indices. Finally, and in contrast to expectations, not all of the available indices mimic well-diversified market baskets, but some track very narrowly defined sectors or industries.

### Findings

The key contribution of our study is that we use the individual trading data of a large number of individual investors to test the null hypothesis that individual investors have benefited by using index-linked securities like ETFs (see Figure 2 for the passive share in our sample).

Our first set of findings is as follows: Before investors begin to use passive investment products, namely in the pre-period, in which none of our investors use these products, those who will become users trade more often, have higher portfolio values, and have more idiosyncratic risk in their portfolios. Their portfolio performance is higher, but not significantly so.

However, the key question is what occurs after use? To answer this question, we first need to make sure that we compare users before and after the first use with investors that were comparable before the users started to use ETFs. Therefore, we match a user to a non-user based on all investor-specific variables that are significantly different between these two groups such as age, gender and number of trades or the investor’s idiosyncratic variance share.

In order to measure the effect of index-linked securities on portfolio performance, we use several measures: Raw returns, market-adjusted returns and alphas from 1- and 4-factor models. We use a global index (MSCI All Country World Index) as well as the broadest local index (CDAX) as benchmarks.

Results reveal that using ETFs is not beneficial for users. In fact, positive changes in portfolio performance are lower for users than for non-users. This holds true for any of the above portfolio performance measures

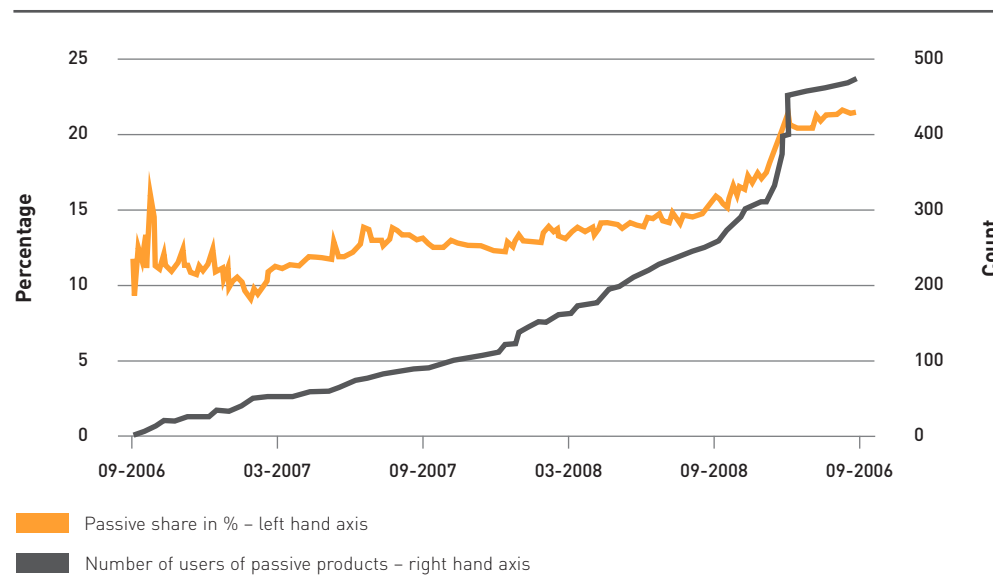


Figure 2: The use of index-linked securities in our sample

using any benchmark index. Our overall conclusion is that individual users of index-linked securities worsen their portfolio performance compared with non-users.

Unwise use of these index-linked securities may explain the worsening of users' portfolio performance after use. Another reason could be the deterioration of the returns of the other securities. To rule out the second reason, we divide users' portfolios into a passive part consisting of ETFs and index funds and an active part consisting of all other products. We analyze the performance of these two parts separately, compare them to the full portfolio and test the differences at the single investor level. We find that the performance deterioration for portfolios of ETF-users is driven by an underperforming passive part. We also find that the addition of ETFs and index funds makes the full portfolio less efficient (the Sharpe ratio of the full portfolio is lower than the Sharpe ratio of the active part). This means that investors not only have a worse performance in their passive part as compared to their active part, but even the diversification benefit to the full portfolio is virtually non-existent. This finding is contradictory to expectations and naturally raises the question why the passive part fails to meet these expectations.

After establishing the use of index-linked securities as a cause for performance deterioration of private investors, we investigate in a second step how investors use, or rather misuse, these products. As in Odean (1999), we

check all purchases and sales transactions in ETFs and index funds to measure security selection and market timing skills. We find that the returns following purchases are significantly lower than returns following sales for a 1-month, 6-months or 12-months horizon. If we decompose these returns into the market return (market timing) and the market-adjusted return (security selection), we find that the deterioration in returns is arising from the market return.

This indicates that market timing might possibly be the reason for the performance deterioration. On the other hand, market-adjusted returns (security selection) often improve after use. Concerns that results might be driven by the choice of a benchmark seem not to be valid, since we find similar results for the CDAX and the MSCI World indices.

### Conclusion

We conclude from the above results that poor market timing and not poor security selection is responsible for the performance deterioration experienced by the users of index-linked securities like ETFs.

By definition, trading in index-linked securities is trading in baskets. This should prevent individual investors from making wrong stock picks, and so it should not be surprising to find that users of index-linked securities have non-negative security selection skills after using these products. The more interesting result is that users of index-linked securities worsen their market timing ability by

using these products. The reason must be that users employ these easy-to-trade index-linked securities – which are highly correlated with the market – to make bets on market phases. And they bet wrong.

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## Insideview

# Productivity and Quality in IT Projects within the Financial Services Industry

INTERVIEW WITH HANS-JÜRGEN PLEWAN

**In the past few years, business intelligence has become more and more important in the financial services industry. What are current challenges that IT projects are facing in the financial sector?**

In the light of important regulatory requirements such as Basel III and IFRS 9, many projects are currently ongoing in the bank management sector. Such projects require business intelligence. There are some technically and functionally sophisticated solutions on the market, but they need to be carefully integrated into the bank's application and system landscape.

**How would you define productive IT projects and what are major determinants?**

There are two main determinants for the productivity of IT projects. Firstly, IT projects must create real added value for the business. This primary productivity factor concerns what technical and economic benefits are obtained through the result of an IT project. The second

aspect of productivity is the execution efficiency of IT projects. We also talk about the "performance productivity" of a project and the question how large the result is that you get for a specific amount of input. This topic is particularly gripping since the performance productivity of comparable projects typically varies by a factor between one and eight.

**What is the role of the human factor in successful IT projects and what are the key ingredients to assure high quality in IT projects?**

The project team is definitely the most important factor of success and the main productivity driver in any project. What is needed here are well-defined hard and soft skills, as well as high levels of motivation and a performance-enhancing project culture. The skills and quality orientation of the employees are also important prerequisites for high quality in IT projects. Above all, early and continuous quality assurance must be guaranteed. Professional IT takes cost reduction and quality improvement into



Dr. Hans-Jürgen Plewan  
Board Member  
Finanz Informatik Solutions Plus GmbH

account by means of early reviews and tests carried out on the documents, concepts, and code.

**Is IT project management in the financial services industry different from other industries, and if yes, in which respect?**

Yes and no. On the one hand, IT projects for project management have similar challenges and factors of success in all industries. On the other hand, in the financial services industry there is a greater tendency towards the systematization and professionalization of project management than in other sectors.

**The financial services industry has sharpened its cost awareness. Offshore projects become more and more attractive to cut costs. Is there a future for projects "made in Germany"?**

Offshore development generally only works for highly industrialized processes. In practice, there are lots of predetermined break points

along the process chain, especially at the interface between requirements engineering and implementation. It's then a matter of dialogue, and that's usually the critical point in the case of offshore projects. The cost benefits are quickly eaten up and quality doesn't benefit either. In contrast, there are also IT companies in Germany that are so professionally organized that they are able to industrialize parts of the value creation chain within an IT organization and take on these parts for calculable costs.

**What does the industry require from software developers in terms of skill sets and how can universities contribute to these requirements?**

In addition to fundamental training in technology and methodology, soft skills should not be underestimated in the world of software development. Software development requires team work and usually takes place on behalf of a customer. Both of these factors require sound communication skills and leanings.

**Thank you for this interesting interview.**

# Infopool

## News

### Successful Disputations

Dipl. Kfm. Christoph Seebach (layer 1) has received his doctoral degree on April 30<sup>th</sup>, 2013 with his dissertation on "Business Agility and Social Media – A Sensing Perspective".

Dipl. Inform. Sven Weber (layer 1) has received his doctoral degree on April 30<sup>th</sup>, 2013 with his dissertation on "Developing a Model for Theory-Generating Design Science Research".

Dipl. Wirtsch.-Inform. Ulrich Lampe (layer 1) has received his doctoral degree on May 3<sup>rd</sup>, 2013 with his dissertation on "Monetary Efficiency in Infrastructure Clouds – Solution Strategies for Workload Distribution and Auction-based Capacity Allocation".

Congratulations!

### EMAC McKinsey Marketing Dissertation Award for Young Marketing Researcher

For the fifth time, the European Marketing Academy (EMAC) and the McKinsey & Company management consultancy have awarded the "EMAC McKinsey Marketing Dissertation Award" for outstanding research in the field of marketing. The first-place winner, Nadia Abou Nabout, earned a EUR 7,000 cash prize for the dissertation she submitted to Goethe University Frankfurt. Her research presents PROSAD, a fully automated system to support advertiser bids for search engine advertising. Nabout's dissertation was supervised by Prof. Dr. Bernd Skiera (layer 1).

### Finalist at VHB's Best Paper Award 2013

The work on "Control Balancing in Information Systems Development Offshoring Projects" of Robert Gregory, Roman Beck (layer 1), and Mark Keil was among the best paper award finalists 2013 as one of the best published articles in IS at the 75<sup>th</sup> annual meeting of the VHB (German Academic Association for Business Research).

### Outstanding Paper Award at the 26<sup>th</sup> Bled eConference

The work on "A Quantitative Multi-Attribute Model to Detect Financial Market Manipulation" by Irina Alic (University of Göttingen), Michael Siering (layer 2) and Marko Bohanec (Institute "Jožef Stefan") was awarded with the Outstanding Paper Award of the 26<sup>th</sup> Bled eConference, Slovenia.

### Mrs. Hauke Stars joins the Council of the E-Finance Lab

Hauke Stars, member of the executive board, Deutsche Börse Group, and Chief Information Officer responsible for Information Technology, Market Data and Services Division, was appointed to the Council of the E-Finance Lab. Mrs. Stars succeeds Frank Gerstenschläger, who supported the E-Finance Lab since 2009 as member of the Council. We would like to thank Mr. Gerstenschläger for his passion and contribution and wish him all the best. The E-Finance Lab gives Mrs. Hauke Stars a very warm welcome!

## Selected E-Finance Lab Publications

### Beck, R.; Fremdt, S.; Tönker, M.:

Design and Evaluation of a Grid-in-a-Cloud-Solution.

In: Proceedings of the 21<sup>st</sup> European Conference on Information Systems, Utrecht, The Netherlands, 2013.

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

Improving Sensing and Seizing Capabilities of a Firm by Measuring Corporate Reputation based on Social Media Data.

In: Proceedings of the 21<sup>st</sup> European Conference on Information Systems, Utrecht, The Netherlands, 2013.

### Dernbecher, S.; Beck, R.; Weber, S.:

Switch to Your Own to Work with the Known: An Empirical Study on Consumerization.

Forthcoming in: Proceedings of the 19<sup>th</sup> Americas Conference on Information Systems, Chicago, Illinois, USA, 2013.

### Lampe, U.; Kieselmann, M.; Miede, A.; Zöller, S.; Steinmetz, R.:

On the Accuracy of Time Measurements in Virtual Machines.

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

### Lampe, U.; Wenge, O.; Müller, A.;

### Schaarschmidt, R.:

On the Relevance of Security Risks for Cloud Adoption in the Financial Industry.

Forthcoming in: Proceedings of the 19<sup>th</sup> Americas Conference on Information Systems, Chicago, Illinois, USA, 2013.

### Gensler, S.; Leeflang, P. S. H.; Skiera, B.:

A Comparison of Methods to Separate Treatment from Self-Selection Effects in an Online Banking Setting.

In: Journal of Business Research, 66 (2013) 9, pp. 1272-1278.

### Gomber, P.; Wolf-Haack, B.; Zimmermann, K.:

Die Umsetzung der MiFID II in der deutschen Finanzindustrie.

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Decision Support Systems and Unfiltered Information: Evidence from Conference Calls.

In: Proceedings of the 21<sup>st</sup> European Conference on Information Systems, Utrecht, The Netherlands, 2013.

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### RESEARCH PAPER: HOW WISE ARE CROWDS? INSIGHTS FROM RETAIL ORDERS AND STOCK RETURNS

This article analyzes the role of retail investors in stock pricing using a database of over USD 2.6 trillion executed trades collected from dozens of retail brokerages. The authors address selection bias concerns and separately examine aggressive (market) and passive (limit) orders. They find that both aggressive and passive net buying positively predict firms' monthly stock returns with no evidence of return reversal. Furthermore, only aggressive orders correctly predict firm news, suggesting they convey novel cash-flow information. And finally, only passive net buying follows negative returns, consistent with traders providing liquidity and benefiting from the reversal of transitory price movements. Thus, researchers must be careful when using retail trading as an empirical proxy for noise trading.

Kelley, E. K.; Tetlock, P. C.:

In: *The Journal of Finance*, 68 (2013) 3, pp. 1229-1265.

### RESEARCH PAPER: SHORT-SELLING BANS AROUND THE WORLD: EVIDENCE FROM THE 2007-09 CRISIS

During the 2007-09 financial crisis, regulators around the world imposed bans on short-selling of securities as a reaction to sudden price declines and in order to restore the proper functioning of capital markets. These bans varied considerably from country to country in terms of intensity, scope, and duration. The authors exploited this variation and used panel and matching techniques in order to identify the effects of short-selling bans on liquidity, price discovery, and stock prices. Results show that the bans were disadvantageous for liquidity leading to an increase in bid-ask spreads. Moreover, short-selling bans slowed price discovery and failed to support stock prices resiliency. Thus, this study suggests that the costs of a short-selling ban outweigh the benefits expected by regulators.

Beber, A.; Pagano, M.:

In: *The Journal of Finance*, 68 (2013) 1, pp. 343-381.

## Electronic Newsletter

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