efl quarterly 02|2008
AN E-FINANCE LAB PUBLICATION

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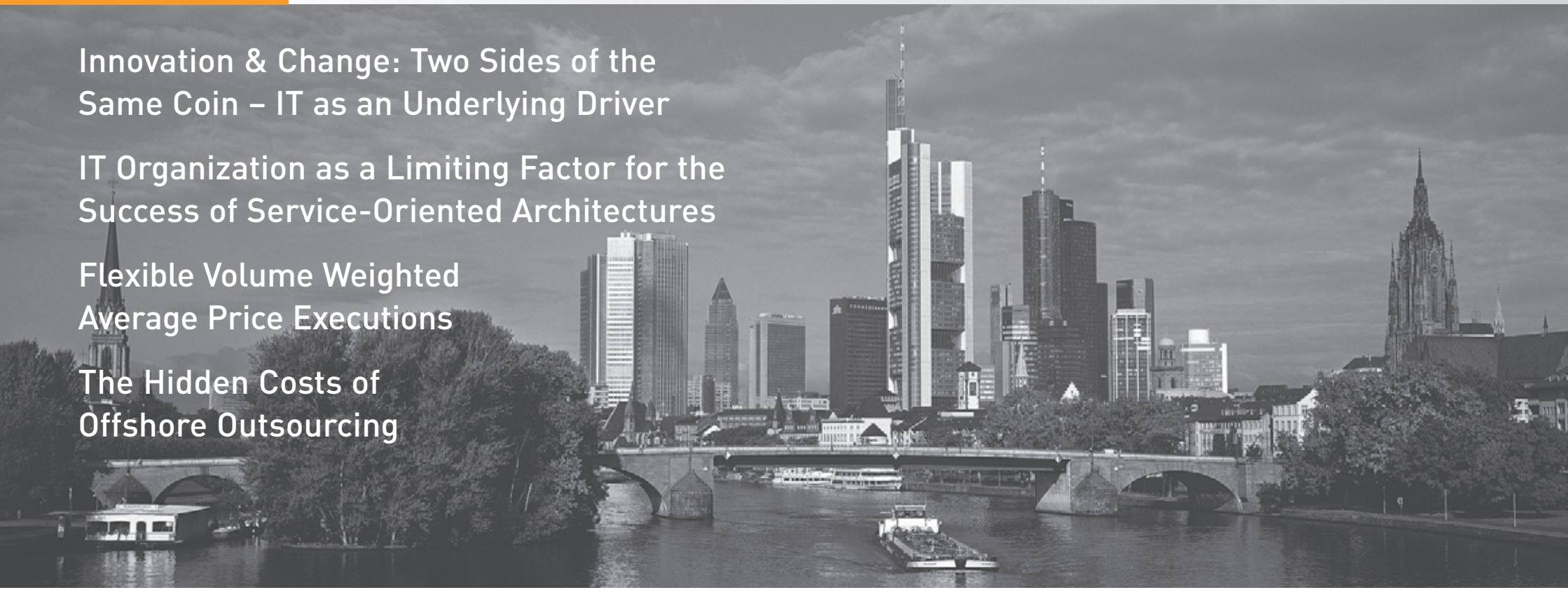
FRANKFURT AM MAIN



Innovation & Change: Two Sides of the Same Coin – IT as an Underlying Driver

IT Organization as a Limiting Factor for the Success of Service-Oriented Architectures

Flexible Volume Weighted Average Price Executions

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Opening of the new House of Finance

On June 5th and 6th, 2008, the new House of Finance located at the Westend Campus of Frankfurt's Goethe University will be opened with a large inaugural conference which features highly reputated speakers (for details please see **http://www.houseoffinance.eu**). The E-Finance Lab – the largest research unit in the House of Finance – is responsible for the section "Management Science and Finance" at this inaugural conference which takes place on June 5th, 2008, 17.00 – 18.30 o' clock.

There will be an opening ceremony of the House of Finance in the afternoon of May 30th, 2008 with distinguished speakers – for example the prime minister of Hesse, Roland Koch (honorary member of the council of the E-Finance Lab), and the federal minister of finance, Peer Steinbrück, to be attended by invited guests.

Impressum

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Gestaltung
Novensis Communication GmbH
Bad Homburg

2. Ausgabe, 2008
Auflage 1.850 Stück

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Printed in Germany
ISSN 1866-1238

Editorial

Innovation & Change: Two Sides of the Same Coin – IT as an Underlying Driver

Hermann-Josef Lamberti

We are living in times of accelerated change. Technology has always had an impact on banking, but in the last 50 years it has become an important driver of the financial industry. For Deutsche Bank, the new era began with the introduction of the punched card machine in 1955. The reason for this step was that the increasing volumes could no longer be handled manually. Although bankers were still sceptical at that time, they realized that the use of modern technology was not a nice-to-have but a must-have in order to stay in business. This was the starting point of a development which has now lasted for more than 50 years. During this time we have seen tremendous progress in information technology, some of which may be called revolutions. All these developments affected banking business by allowing banks to handle larger volumes more cheaply and faster. But this has not only meant that traditional processes can be run more efficiently: the business itself has changed because of the innovative use of technology.

What have been the consequences for banking technology? In the last few years technology has had a substantial impact on banking. Nearly all innovative financial products require technology. Since the life cycles of banking products have become shorter, time to market is even more important. At this point, banking technology can make the difference which gives a competitive advantage. For this to happen, banking technology has to be a partner to business instead of a subordinated service. IT staff must be involved in the creation of business processes and should no longer focus just on applications. For Deutsche Bank, this is at the core of the introduction of Service-oriented Architecture (SOA) in the bank. At Deutsche Bank, SOA is part of an overall strategy to align banking technology with the latest business requirements. The

Hermann-Josef Lamberti
Chief Operating Officer
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setting up of a Service-oriented Architecture is closely linked with the redesign of current workflows, operating models, applications, and infrastructure. Based on flagship projects at Deutsche Bank, SOA is gradually being implemented in all areas of the bank's IT. As the first successful cases show, this approach can lead to added value.

What are the consequences for the financial industry? Thirty years ago banks still pursued the buy-and-hold strategy: they lent money and held these risks on their books until the loan was paid back. This created bulk risks, which limited the ability of the financial market to deliver liquidity to the real economy. The capacity of the financial system to handle an exponentially growing number of trades was the key to the securitization of loans on a large scale. As a result, it was possible to transfer risks, which no longer had to stay with one bank. The use of the latest technology was necessary to form a financial market capable of keeping pace with the needs of a globalized real economy. One figure which illustrates the speed of this change is the growth in the volume of loan derivatives from $0.5 trillion in 2000 to more than $42 trillion in 2007. We have known since summer 2007 that this development also entails new risks which we must monitor carefully. But even though the sub-prime crisis has highlighted the risks inherent in a globalized financial system, there is no turning back. A deeper understanding of the underlying mechanisms is essential to identify potential market bias and stabilize the system.

Further investigation of all these aspects is therefore very important. Around 500 B.C., the Greek philosopher Heraclitus noted that "there is nothing permanent except change". The E-Finance Lab makes a useful and constructive contribution to the ongoing discussion of change and innovation in the financial services industry. Their research results help to gain a deeper understanding of the drivers of the current financial markets as well as the underlying banking IT.

Research Report

IT Organization as a Limiting Factor for the Success of Service-Oriented Architectures

A RECENT SURVEY SHOWS THE IMPORTANCE OF DEDICATED GOVERNANCE STRATEGIES FOR MANAGING SERVICE-ORIENTED ARCHITECTURES IN BANKS. IN ORDER TO IMPLEMENT NOVEL GOVERNANCE STRATEGIES, THE EXISTING IT ORGANIZATION HAS TO BE ADAPTED ACCORDINGLY. THIS REPORT PRESENTS ENHANCEMENTS OF CLASSICAL IT ORGANIZATIONS.

Julian Eckert
Michael Niemann
Achim Schäfer[1]
Nicolas Repp
Marc Billeb[1]
Ralf Steinmetz

Introduction

The implementation of Service-oriented Architectures (SOAs) induces novel requirements in various domains of banks and other financial service providers. Especially for IT Governance, current SOA approaches often lack proper support. This fact is confirmed by the results of the latest SOA Check 2008, in which enterprises of different sectors in Germany, Austria, and Switzerland participated (21% of the participants were from banks and financial service providers (Martin and Repp, 2008)). These results confirm the importance of a dedicated SOA Governance strategy for all industries. 66.67% of the surveyed banks and financial service providers already implement a SOA Governance strategy or will implement one in the near future (83% over all industries). Actually, 50% of the banks and financial service providers participating already use dedicated SOA Governance strategies (49% over all industries).

Results from a joint research project of EFL and PricewaterhouseCoopers AG WPG, Financial Services, show that a consequent adaption of IT Organization is mandatory for the implementation of SOA Governance strategies of banks and financial service providers. This article focuses on the core elements of an extended organizational structure concerning SOA Governance. We identify additional requirements for a SOA-capable IT Organization and analyze differences in the corresponding software and service lifecycles. Thereafter, additional organizational roles based on these results are introduced.

Corporate and IT Governance

Corporate Governance includes methods and instruments necessary for the management and monitoring of enterprises (Rüter et al., 2006). IT Governance, as a part of Corporate Governance, defines the IT requirements and environments for enterprises and covers the principles and concerns of Corporate Governance which apply to IT. IT Governance defines processes and actions that result in decisions which adequately consider risks.

In order to efficiently realize decisions according to governance strategies, an appropriate organizational form for the IT is required. Decision-making authorities, roles, and responsibilities have to be defined. Those roles and responsibilities have to be documented and followed, especially at the interface between business departments and IT.

Towards a SOA-capable IT Organization

IT Organizations form the foundation for the realization of principles and actions defined by an IT Governance strategy.

According to Melzer et al. (2005) classical, i. e. historically grown IT landscapes and their respective IT Organization are mostly organized according to the IT systems or departmental structures (Liebhart, 2007). In contrast, in order to take full advantage of SOA the organizational structures of the IT department has to be aligned along business processes. Here, business processes can be subdivided into service compositions following the SOA paradigm. Following a classic organizational approach, crossorganizational processes are hard to implement and maintain due to the complexity of existing system interfaces.

Organizational structures have to cope with the fact that parts of existing business processes now can be more easily outsourced to external providers due to the reduction of interface complexity.

In particular, a SOA-capable IT Organization has to consider the following aspects:

- Overall architectural strategy to improve reuse of services and to avoid service duplication
- Contract & Service Level Agreement (SLA) management with third party providers
- Ensuring accountability and compliance of own and third party services, e.g., by extensive monitoring
- Trust and security in (crossorganizational) business relationships

SOA-aligned IT Organization

Typically, existing IT Organizations are aligned to a software lifecycle consisting of several phases. Considering a SOA implementation the IT Organization still follows this lifecycle, even if the phases differ in content (as depicted in Figure 1). Both design and development phases have to be customized in order to fit

to SOA peculiarities. Apart from design, the selection of third party services also has to be supported. This implies the procurement of the selected services during the development phase instead of new service development.

Although, the phases in a service lifecycle appear similar to their software lifecycle counterparts, they have to meet different requirements. Therefore, the existing IT Organization has to be extended with additional roles (as depicted in Figure 2).

Due to the importance of service granularity, reuse, and the avoidance of service duplication for subsequent service design, an *Architectural Board* has to be installed. It has to survey and control the requirements analysis, the modeling and design process of services as well as the service portfolio management. The board has to be consulted concerning any architectural developments and adjustments. Responsibilities of the board can be divided into sub-roles, such as Service Modelers, which ensure the consistent design of single services concerning programming guidelines and message design by appropriate policies.

An additional role called *Service Procurement & Development* not only contains the development of services but also the purchase and integration of external services. Furthermore, versioning of SOA services assures backwards compatibility of services and the message formats. In addition, SOA-specific security aspects have to be considered during development and procurement. Concerning software testing, characteristics of test processes in a SOA environment are considered in particular, e.g., detailed integration and system tests.

A further role called *Contract & SLA Management* ensures the existence of policies, guidelines, and their enforcement. This is necessary due to the large amount of short term contracts with varying external partners.

Software Lifecycle	Service Lifecycle	Service Lifecycle	Additional Roles in a SOA Environment
Requirements Analysis	Requirements Analysis	Requirements Analysis	Architectural Board
Design	Design / Selection of Services	Design / Selection of Services	
Development	Procurement of External Services	Procurement of External Services	Service Procurement & Development
	Development of Internal Services	Development of Internal Services	
Quality Assurance	Quality Assurance	Quality Assurance	Contract & SLA Management
Operations	Operations	Operations	

Figure 1: Additional roles in a SOA-dominated environment

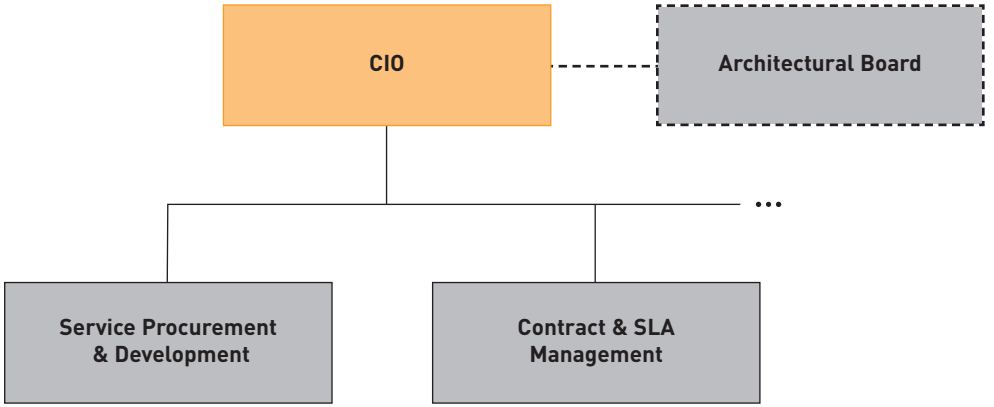

Figure 2: Enhancements of an existing IT Organization in a SOA-dominated environment

Conclusion

The implementation of a SOA implies the need for organizational changes in IT departments. This article focuses on the enhancements necessary for existing IT Organizations, which comprise roles as the Architectural Board, Service Procurement & Development, and Contract & SLA Management. The consideration of SOA peculiarities as well as the introduction of dedicated roles ensure a sustainable SOA.

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Research Report

Flexible Volume Weighted Average Price Executions

CONCEPTUAL DEVELOPMENT OF A DARK POOL TRADING MODEL THAT INTENDS TO BALANCE MARKET IMPACT COSTS AND FLEXIBILITY IN SECURITIES TRADING.

Peter Gomber
Marco Lutat
Adrian Wranik

Introduction

The size of individual institutional investors' orders for securities can range up to several percent of the average daily trading volume. In equities trading, there is no quantity discount. Instead, trading large order volumes significantly rises transaction costs. Trading such orders in the markets is subject to explicit as well as significant implicit transaction costs of trading, i.e. market impact and opportunity costs. The market impact results from the information potentially carried by the orders and from the premium paid for liquidity provision. Opportunity costs are due to orders and execution strategies that can not be implemented in full due to this market impact.

Therefore, institutional investors as a first option can execute large orders by delegating the execution to a broker (agency order) who preserves the anonymity of the investor and does not reveal the (large) order as a whole to the market. The broker releases the order successively manually or via Algorithmic Trading tools into the markets. Benchmarks are applied to measure the execution performance of the broker. As of today, the most established benchmark is the Volume Weighted Average Price (VWAP) in a market for a specified period of time. As this benchmark is easy to measure, easy to communicate, and is provided electronically and continuously updated by most information vendors (Reuters etc.), agency VWAP trading established as a standard execution mechanism in the industry.

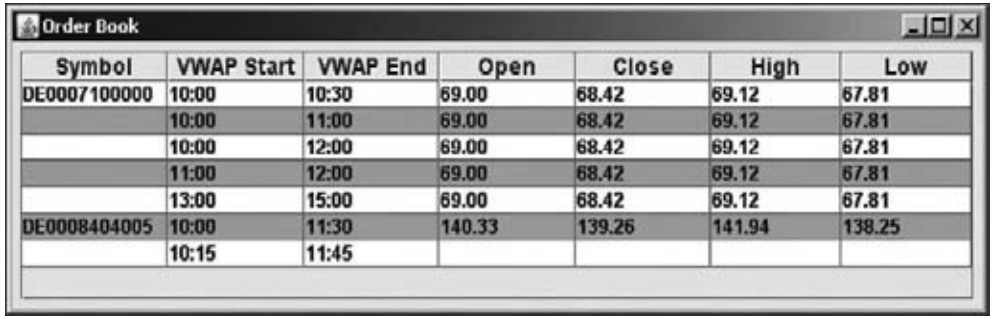
As a second option, the investor can execute these orders without broker intermediation within an electronic trading system that imports prices from a reference market. These systems are named "Dark Pools" as they provide no or minimum pre trade information and have been intensively discussed in the industry for the last two years. There are already around 40 Dark Pools in the U.S. with a market share estimated at 10-15% of total equity trading. For 2008 in Europe, multiple Dark Pools have been announced that will enter competition for order flow. These Dark Pools are provided by agency only brokers (e.g. ITG Posit, Liquidnet, Nyfix Euro-Millenium), or by full service brokers, broker–consortia or broker-exchange consortia (e.g. Goldman Sigma, Turquoise or SmartPool). In these Dark Pools, typically orders are crossed at the midpoint of the bidask spread of a reference market (Electronic Crossing).

Agency VWAP vs. Electronic crossing

In case of agency VWAP orders the broker splits an order into smaller chunks and executes them over time and mostly across multiple execution venues trying to achieve or beat the VWAP benchmark. Although agency VWAP is subject to relevant explicit transaction costs and to principal–agent issues, it offers flexibility to the investor:

(i) the investor can specify a flexible time period other than the whole trading day, for example the VWAP for several hours,
(ii) unfilled parts of the order can be cancelled during execution, for example if important news regarding the traded instrument are released and
(iii) the investor has the chance that his order is executed at a price better than the VWAP if his broker performs in order execution.

Electronic Crossing in Dark Pools at the midpoint of the bid-ask spread is subject to lower explicit and implicit transaction costs (Naes and Skjeltorp, 2003) but entails the problem that large orders might be crossed at an unfavorable price relative to the daily average price for one of the counterparties, specifically in the very volatile markets that we see since mid 2007. One approach to mitigate this issue are electronic VWAP crossing models that apply an average price instead of the current mid-point of the bid-ask spread. The New York Stock Exchange (NYSE), e.g., provides four different crossing sessions after its market close. One of those sessions applies the (already known) full-day VWAP for orders submitted to the system. As associated trade



Symbol	VWAP Start	VWAP End	Open	Close	High	Low
DE0007100000	10:00	10:30	69.00	68.42	69.12	67.81
	10:00	11:00	69.00	68.42	69.12	67.81
	10:00	12:00	69.00	68.42	69.12	67.81
	11:00	12:00	69.00	68.42	69.12	67.81
	13:00	15:00	69.00	68.42	69.12	67.81
DE0008404005	10:00	11:30	140.33	139.26	141.94	138.25
	10:15	11:45				

Figure 1: Order book snapshot at the system's prototype front-end

prices are already known before an order is submitted, this crossing obviously is unfavorable for one side of the market depending on whether this full day VWAP is higher or lower than the current market price (closing price of the day). Instinet provides a model for crossing customer orders at the (future) full-day VWAP twice a trading day, where crossing takes place in two separate sessions and where price and volume negotiations are separated. Here, orders are crossed against each other within a session before the reference market opens and trades occur but only the quantities are determined. In a second step, after the reference market closes, the full day VWAP is imported and serves as the execution price for the previously matched trades.

Thus, existent approaches either provide ex post VWAPs or full day VWAPs only. The full day VWAP exposes an order to the risk of significant price movements between execution before the market opening and price determination at the market close. Moreover, it does provide no flexibility in specifying the desired trading window. We took these trade-offs as a starting point to develop a new flexible VWAP execution model that

(i) is designed as a fully electronic market, i.e. allows to trade at low explicit execution costs,
(ii) protects large orders as it provides only minimum pre trade information to the market, i.e. is designed as a Dark Pool,
(iii) enables to trade at the VWAP within trading windows that can be specified by the trader, i.e. provides full flexibility.

This electronic trading model named "flexible VWAP executions" will be detailed in the following sections.

Flexible VWAP Executions

The key idea of the developed model is that crossings are triggered based on the start times (and end times) of the VWAP periods submitted as order parameters by investors rather than being fixed and specified by the provider of the execution venue. This provides full flexibility concerning the time windows in which the VWAP is determined and thereby differs substantially from existing VWAP crossings. At the investor's front-end only the specified VWAP calculation periods of orders sitting in the book, i.e. the submitted start times and end times for the VWAP calculations, are displayed (see Figure 1). Thereby, other institutional investors can react to the order submissions and liquidity can concentrate at specific time windows, i.e. investors can join time periods already present rather than specify new ones. Additionally, the Graphical User Interface may provide information from the reference market.

Besides the desired start and end times the order book is closed in a way that neither volume nor market side information is shown in order to prevent market impact. In this respect our model can be characterized as a Dark Pool mechanism. Trading is anonymous, so investors do not know each other in advance of the trade.

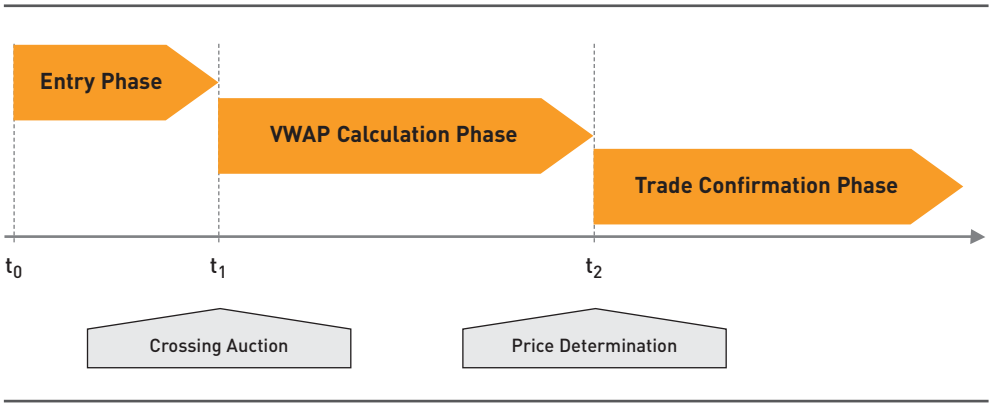


Figure 2: Trading phases for a single crossing session

The crossing auction, that is the algorithm matching supply and demand, is performed right before the VWAP calculation starts. The VWAP is imported and set as the transaction price after the calculation period ends.

Trades are finally and fully confirmed at time of completion, including the trade price. For investors' protection safeguards against extreme events and reference market movements are included in the model.

Order Types in the new model

Splitting supply and demand over multiple auctions for different VWAP periods increases risk of non-execution because two investors can choose incompatible periods. However, the flexible VWAP crossing model allows for crosses not only against exactly matching time periods (e.g. 10:00 – 12:00), but also against partially overlapping ones. To provide this flexibility to the investor, we developed several new types of orders designed for our flexible VWAP Dark Pool:

(i) a basic order type named "strict order". This type carries the minimum parameters needed, namely buy/sell indication, quantity, start time, and end time. A strict order participates only in crossing auctions with exactly matching parameters (start and end times), any unexecuted quantity is deleted,
(ii) an additional order type, "start fix order", that allows for partial period matches. Such orders can be executed against orders with the same start time but different end times,
(iii) a third order type are "carry forward orders". Any unexecuted quantity of the orders is forwarded to the next crossing session.

Trading Phases in the new model

The trading phases of the flexible VWAP executions model are the *order entry phase, the crossing auction, the VWAP calculation period, the price determination, and the trade confirmation phase* (see Figure 2). In the order entry phase, the first order submitted into the system sets an event driven time window between this first order entry time (t_0) and the specified VWAP calculation start time (t_1). During this phase, the order book shows the submitted start and end times to enable other traders to join these VWAP calculation windows.

Immediately before start time t_1, a crossing auction occurs, matching orders based on the implemented matching rules. As the system matches based on time priority, the order entry time is an important parameter for the matching mechanism. Price priority obviously does not apply as the price is the imported VWAP of the reference market.

First, all orders with exactly matching time periods – i.e. these orders have identical t_1 (start times) and t_2 (end times) – are matched. This includes forwarded orders from previous auctions. In the example in Figure 3, this would affect orders in the block marked as A with specified intervals between 10:00 and 12:00 and the crossing would occur at 10:00 (t_1). Additional auctions would occur at the same time for orders in block B and for orders in block F.

Whenever there is unexecuted quantity from orders submitted as "start fix orders", additional auctions are triggered for partially overlapping intervals (for example orders in block A against orders in block B in Figure 3). Here, available quantities are adjusted for the shorter interval based on historical volume pattern. Orders can not be withdrawn as soon as the auction starts. Details on the matching mechanism are provided by Gomber et al. (2007).

After the crossing, execution confirmations with the executed quantity are sent to investors. The execution confirmations have no counterparty information to prevent a black board effect where investors could submit only a small quantity to the crossing system and negotiate their real quantity bilaterally with counterparties disseminated through the confirmations.

Immediately after the end of the crossing auction, the VWAP calculation period starts. The VWAP for the matched time period will represent the price for the trades crossed in the auction. At the beginning of the VWAP calculation, unexecuted quantity is handled: Remaining quantity for strict orders is deleted. Remaining quantity or unexecuted orders from carry forward types are waiting for the next suitable crossing session. If time constraints, e.g., submitted end times, are reached, the remaining quantity is also deleted.

At t_2, the calculation of the VWAP ends and price determination takes place. This price completes the trade data of a transaction.

After t_2, the trade confirmations are sent to the investors, including all data required for post trade processing.

Since investors are free to specify the time periods, the trading phases described above are present for every single trading period in the system.

Conclusions

Investors can submit a VWAP agency order to a broker or make use of a fully electronic crossing facility in a Dark Pool. Existing crossing facilities are characterized by low explicit costs, but also by price risk and inflexibility as either a midpoint of the current bid-ask spread or the full-day VWAP of a reference market is applied for crossing sessions. We proposed a conceptual market model for non-intermediated crossing sessions in a fully electronic environment, which provides anonymity and lifts the constraints of existing Dark Pools by introducing the possibility of crossing investors' orders at flexible intraday VWAPs.

The next step in the project will be a systematic discussion of the model with interested potential users (please do not hesitate to contact us for discussion of the model) and based on this input a development of a full prototype of the proposed model that can be further analyzed, e.g., by means of the methodology of laboratory experiments.

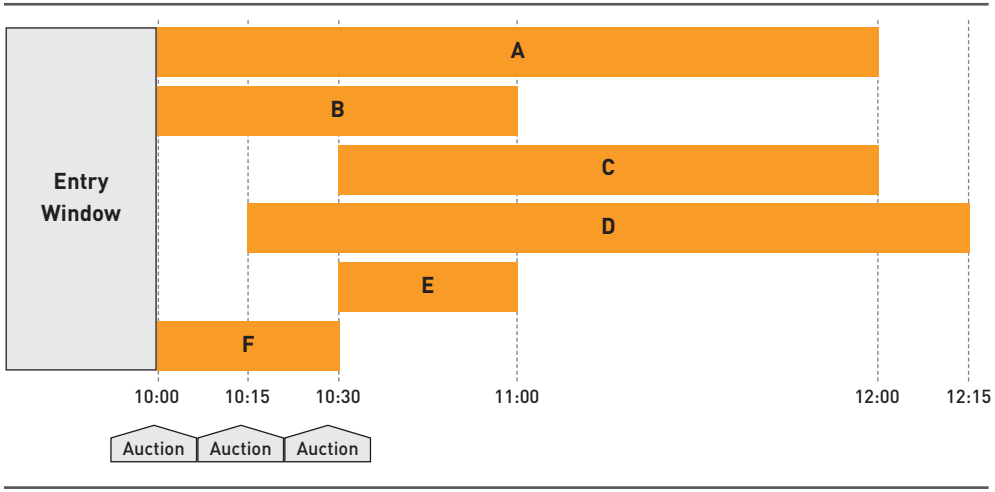


Figure 3: Allocation of orders to crossing auctions based on the specified start and end times

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Insideview

The Hidden Costs of Offshore Outsourcing

Interview with Dr. Jens Dibbern and Jessica Winkler, School of Business at the University of Mannheim

Dr. Jens Dibbern,
Assistant Professor in Information Systems,
School of Business at the University of Mannheim

Jessica Winkler,
Ph.D. student,
School of Business at the University of Mannheim

Together with Prof. Armin Heinzl you conducted a number of case studies on offshore outsourcing of software development and maintenance in the financial services industry. What are your key findings?

Dr. Jens Dibbern: We studied multiple software development and maintenance projects that were offshored by German banks and insurance companies to service providers located in India. The major reason for offshore outsourcing in each of those cases was the desire to save costs. However, we found that only in a few cases cost savings were actually realized. In fact, in some cases the costs were perceived to be substantially higher than without offshoring. The main reason for the failure to realize costs savings was that the client companies underestimated extra costs that arose for their own effort in requirements specification and design, knowledge transfer, control, and coordination. While such extra costs apply to offshoring of software work in general, we found those extra costs to vary substantially between projects.

How do you explain these variations in extra costs?

Jessica Winkler: Extra costs were especially high in cases where a high level of client-specific knowledge about idiosyncratic business processes and software systems had to be adopted by the offshore vendor to perform the software development and maintenance activities. In those cases, knowledge transfer was very hard to achieve, and the client companies had to support the vendor by providing additional specifications and increased control to ensure quality. In other words, it is the type of software service that matters. The more customized the software is to reflect very unique business processes and technological infrastructures of the client, the less offshoring makes sense economically.

What is the role of cultural differences in this context?

Jessica Winkler: The Indian culture is often characterized by a high level of power distance and conformism. In our research, we observed certain behaviors that are associated with those attributes, such as the Indian professionals' tendency to oblige or to keep to given specifications. Management needs to address these behaviors to ensure a successful cooperation, which frequently leads to extra costs. For example, feedback mechanisms need to be established to recognize misunderstandings at an early stage, and very detailed and accurate specifications have to be provided by the client companies.

Most of the service providers in India are certified CMM level 5, while German companies are not. What are the implications with respect to offshoring to India?

Dr. Jens Dibbern: When talking about CMM certifications, you need to distinguish between process quality on the one hand and product quality on the other. CMM level 5 essentially means high process quality in an engineering kind of way. However, high process quality does not automatically ensure high product quality. We found the quality of the resulting software product to be perceived quite low in many of our cases. And the main reason for this was lack of understanding of the client-specific business processes underlying an application, which is not captured by the CMM certification. This is essentially the same distinction as efficiency versus effectiveness. Focus on efficiency and standardized processes may be suitable for very general, easily understandable software applications. In those cases, the offshore vendor can draw on prior experiences and realize economies of scale, while still meeting the client's requirements. If the client has very idiosyncratic requirements, however, then many of the standardized processes and engineering tools are not that useful any more.

Thank you for this interesting conversation.

Infopool

News

The new "Status Quo im Retailbanking 2007" report is available now. Professor Skiera (cluster 3) analyzes in this report the results of a survey of 20,000 retail bank customers and describes the market share, product usage, and customer structure of the major German retail banks.Special topics are secondary banking connections of current account and savings customers as well as the sales volume that is generated via branches versus distance selling (the management summary is available at **www.efinancelab.com/statusquo**).

The Center for Financial Studies, Deutsche Börse AG and the E-Finance Lab (cluster 5) are inviting to an international research conference on "The Industrial Organisation of Securities Markets: Competition, Liquidity and Network Externalities". The objective of the conference is to bring together leading academics and members of the industry in this field to focus on state-of-the-art academic research in an environment that stimulates discussions and an exchange of ideas. The conference will take place at Deutsche Börse in Frankfurt, June 13-14, 2008. More information is available at **www.efinancelab.com**.

Best Paper Award: Dr. Patrick Behr (research project partner of cluster 4), Professor Dr. Reinhard H. Schmidt, and M.Sc. Ru Xie (Chair of International Banking and Finance, Goethe-University Frankfurt) received the Best Paper Award "Banking and Financial Institutions" at the 57th annual meeting of the Midwest Finance Association for their contribution "Competition, Capital Regulation, and Bank Risk Taking". Congratulations!

Team members
Martin Wolf who studied Information Systems at the University of Mannheim joined the E-Finance Lab (Project "FinGrid") on April 1. His major research areas in the E-Finance Lab will be the analysis of promising application areas for Grid Computing in the financial services industry.
Dipl.-Kfm. Felix Schwarze (cluster 4) left the E-Finance Lab to take a position as personal assistant to an executive director of 1822direkt. We thank Mr. Schwarze for contributions and wish him all the best for his new job as well as for the finalization of his dissertation thesis.

The E-Finance Lab fall conference 2008 „Herausforderungen neuer Geschäftsmodelle und Technologien – Governance und Banksteuerung im Zeitalter virtueller und global verteilter Unternehmen", Sept. 15th, 2008
The E-Finance Lab fall conference 2008 will be held at the congress center Darmstadtium, Darmstadt, on September 15th, 2008.
For further information and registration see **www.efinancelab.com**.

Selected E-Finance Lab publications

Beck, R.; Schwind, M.; Hinz, O.:
Grid Economics in Departmentalized Enterprises. In: Journal of Grid Computing 2008. Springer, Dordrecht, Netherlands.

Berger, S.; Gleisner, F.:
Emergence of Financial Intermediaries on Electronic Markets: The Case of Online P2P Lending. In: Swiss Society for Financial Market Research (SGF) Annual Meeting. Zurich, Switzerland, 2008.

Bluethgen, R.; Meyer, S.:
Investor characteristics and the diffusion of financial product innovations – A quantitative approach. In: Eastern Finance Association Meetings 2008. St. Pete Beach, USA, 2008.

Gleisner, F.:
Migration and the Retail Banking Industry – An Examination of Immigrants´ Bank Nationality Choice in Germany. In: Midwest Finance Association 57th Annual Meeting. San Antonio, USA, 2008.

Gomber, P.; Chlistalla, M.:
Implementing MiFID by European execution venues – Between threat and opportunity. In: Journal of Trading 3 (2008) 2.

Gomber, P.; Lutat, M.; Wranik, A.:
Flexible VWAP Executions in Electronic Trading. FinanceCom 2007 LNBIP 4, Ed: Veit, D.J. et al., pp. 1-14. Springer, Berlin, Heidelberg, 2008.

Güttler, A.:
The Impact of Downward Rating Momentum on Credit Portfolio Risk. In: Swiss Society for Financial Market Research (SGF) Annual Meeting. Zurich, Switzerland, 2008.

Repp, N.; Eckert, J.; Schulte, S.; Niemann, M.; Berbner, R.; Steinmetz, R.:
Towards Automated Monitoring and Alignment of Service-based Workflows. In: IEEE International Conference on Digital Ecosystems and Technologies 2008 (IEEE DEST 2008). Phitsanoluk, Thailand, 2008.

Skiera, B.; Gerstmeier, E.; Stepanchuk, T.:
Stichwort Suchmaschinenmarketing. In: Die Betriebswirtschaft 68 (2008), pp. 113-118.

Wahrenburg, M.; Steffen, S.:
Syndicated Loans, Lending Relationships and the Business Cycle. In: Southwestern Finance Association 47th Annual Meeting. Houston, USA, 2008.

Wiesel, T.; Skiera, B.:
Customer Equity – An Integral Part of Financial Reporting. In: Journal of Marketing 72 (2008) 2, pp. 1-14.

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

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Research outside the E-Finance Lab

RESEARCH PAPER: SOURCING PRACTICES AND BOUNDARIES OF THE FIRM IN THE FINANCIAL SERVICES INDUSTRY

The authors investigated sourcing decisions related to the back-office operations of 108 processes used by financial services companies. Guided by the arguments of transaction cost economics and the resource-based and knowledge-based view of organizations, they hypothesized that service customization and volume represent two key drivers of a service company's sourcing decisions. For example, the financial services industry offers asset management and trust services for clients with high net worth. Such customized services require frequent changes to the service delivery process and therefore bear high levels of uncertainty. The inherent uncertainty of service customization gives rise to the transaction cost risks of vendor opportunism and holdups in the case of outsourcing back-office operations such as asset management to suppliers and thus favors insourcing. Moreover, the competency gained from performing high-volume back-office operations such as asset management aligns with the tenets of the resource-based view, which also favors insourcing. The empirical results corroborate these theoretical expectations.

Safizadeh, M. Hossein; Field, Joy M.; Ritzman, Larry P.
In: Strategic Management Journal 29 (2007) 1, pp. 79-91.

RESEARCH PAPER: COST EFFICIENCY IN THE EUROPEAN SECURITIES SETTLEMENT AND DEPOSITORY INDUSTRY

Van Cayseele and Wuyts examine whether the European settlement and custody institutions operate in an efficient way. First they provide an insightful discussion of the network characteristics of securities settlement. Based on this, they estimate costs functions for settlement and demonstrate the existence of economies of scale. They moreover show that economies of scope exist from the combination of securities holding and securities account provision.

These findings imply that further consolidation is probably ahead, and that separating certain activities from others such as settlement from custody can only be done at the expense of efficiency.

Van Cayseele, Patrick; Wuys, Christophe
In: Journal of Banking & Finance 31 (2007), pp. 3058-3079.

Electronic newsletter

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

Prof. Dr. Wolfgang Koenig, E-Finance Lab,
Frankfurt University,
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The Internet-type newsletter uses short teaser texts complemented by hyperlinks to further information resources in the Internet. To subscribe, please send an e-mail to

newsletter@efinancelab.com.

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

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For more information about the House of Finance, please visit www.houseoffinance.eu.

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