Exploring Potential IOS-supported Partnerships between Banks and SMEs

Daniel Beimborn
Goethe University Frankfurt- Germany

Sebastian Martin
Goethe University Frankfurt- Germany

Stefan Blumenberg
Goethe University Frankfurt- Germany

Follow this and additional works at: http://aisel.aisnet.org/amcis2006

Recommended Citation
http://aisel.aisnet.org/amcis2006/235
Exploring Potential IOS-supported Partnerships between Banks and SMEs

Daniel Beimborn
E-Finance Lab, Institute of Information Systems
Goethe University Frankfurt, Germany
beimborn@wiwi.uni-frankfurt.de

Sebastian F. Martin
E-Finance Lab, Institute of Information Systems
Goethe University Frankfurt, Germany
smartin@wiwi.uni-frankfurt.de

Stefan A. Blumenberg
E-Finance Lab, Institute of Information Systems
Goethe University Frankfurt, Germany
blumenberg@wiwi.uni-frankfurt.de

ABSTRACT

The partnership between banks and non-banks is one of the oldest and most common lateral business partnerships. While banks are looking for new markets and for cost efficient ways to implement new business models, SMEs presumably have considerable efficiency potentials within their financial processes. Some of these potentials could be realized by embedding functionality provided by banks within the financial processes of SMEs. What factors drive the willingness of SMEs to adopt integrated financial business functions provided by banks? Through a case study-based, exploratory research approach, we identify major factors that influence the willingness of SMEs to adopt new, integrated banking services.

Keywords
Cooperation, interorganizational systems, technology adoption, SMEs, banking, financial processes, theory of planned behavior.

INTRODUCTION

This study attempts to make a contribution to interorganizational systems (IOS) adoption research. Currently, banks are looking for new markets and for cost efficient ways to implement new business models (Timmers 1998). On the other side, SMEs presumably have considerable efficiency potentials within their financial processes (Beck, Wigand, and König 2003; FMER 2005). The relationship between banks and non-banks is one of the oldest and most common lateral business partnerships. In Germany, SMEs are mainly served by their local house banks which are mostly either public savings banks or credit cooperatives. Large banks, which are not physically present in the SME’s local areas, look for opportunities to reach those potential clients through innovative products and IT-based services.

One of our research objectives is the identification of financial business functions within SMEs’ business processes, which can be carried out more efficiently by banks. The driving hypothesis underlying this work is that SMEs, which typically lack specialized resources in the financial domain (Buse 1997), may profit from a bank’s experience by integrating financial services by means of IOS within their own business processes.

We refer to this linkage as Value Chain Crossing (VCC): financial services which are seamlessly embedded within an industry partner’s business processes, provided by banks through IOS. From an SME’s point of view, VCC represents the selective outsourcing of parts of the firm’s financial processes to a bank. The term VCC arises from the fact that financial processes of banks and SMEs stand orthogonally to each other. For SMEs, financial processes usually are secondary processes which support the core business (Porter 1985). Contrastingly, for the bank, financial processes represent the core business. Therefore, integration of this kind represents an orthogonal integration resp. lateral cooperation, in contrast to vertical cooperation,

1 An exception would be financial service providers, which we won’t consider in the following.
where processes of different firms are integrated along the value chain, and contrary to horizontal cooperation, where similar processes are bundled. A preliminary example for a VCC is EDI transmission of payment runs (“preliminary”, because it is usually not completely integrated with the adopter’s systems). The VCC definition is consistent with the service-oriented paradigm, where services from several providers can be plugged in and out within a modular business process landscape (Kraffzig, Banke, and Slama 2005).

Beside these issues from the banking and the SME domain which encourage our research, the theoretical motivation for this work is given by a lack on research of IOS adoption in lateral B2B cooperation. Our research question thus is:

What factors influence an SME’s willingness to adopt VCC?

Based on a review of related literature we develop a model of perceived characteristics of a VCC which influence the adoption willingness of SMEs. To apply it, we develop a hypothetical scenario for VCC between banks and SMEs and discuss it within a series of eleven exploratory case studies to find out whether or not SMEs would be inclined to adopt this VCC and which the critical driving and inhibiting factors would be.

THEORETICAL FOUNDATION

Cooperation in general is evaluated to be the most adequate strategy to ensure the survival of the German SME segment (Buse 1997). Nevertheless, many studies show that small companies use cooperation much less than larger firms (BIE 1995; Englert 2000). Helm et al. show that low cooperation willingness often originates from the company’s legal form (Helm, Melhorn, and Strohmayer 1996). A characteristic of many SMEs in Germany is the identity of the company’s ownership and leadership (Günterberg and Kayser 2004). In a study about banking services for SMEs in Germany and France, Quack & Hildebrandt (1995) state that three out of four German companies with a turnover of 50-300 million FF (7.6-45.7 million EUR) and one out of two German companies with a turnover of 300-500 million FF (45.7-76.2 million EUR) are family-controlled. This coherence of ownership and leadership influences a firm’s innovative behavior (Günterberg et al. 2004), leading to a more risk adverse attitude, because the owners fear the possibility of costly cooperation failure (Englert 2000). Additionally, the lacking strategic orientation of SMEs is a reason for missing willingness to cooperate (Englert 2000).

Investigating the outsourcing of certain business functions is often theoretically based on the resource based view (Barney 1991; Penrose 1959; Wernerfelt 1984) and the competence based theory (Prahalad and Hamel 1990). These theories analyze the competitive impact a business function (encapsulating its resources and capabilities) confers to a firm. By outsourcing certain functions, firms may profit from the competence of specialized service providers, for whom the insourced function is a core competence. Empirical studies have shown that the lack of internal resources and capabilities is a main influencing factor for outsourcing decisions (e.g. Dibbern and Heinzl 2002; Goles 2003).

Conceptually, the adoption of a VCC by an SME represents an innovation adoption. This assumption is consistent with Rogers’ definition of an innovation as “[…] an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (Rogers 1983, 12). Moreover, Loh and Venkatraman (1992) treat IT outsourcing as an administrative innovation. This perspective allows us to base our research model on prior works on organizational adoption of innovations, which thus provide a suitable theoretical framework for analyzing the adoption of VCC. A comprehensive overview on the inhibitors and stimulators of innovation adoption processes is given by Frambahc and Schillewaert (2002). Three factors in our research model are stemming from Iacovou, Benbasat and Dexter’s (1995) EDI adoption framework who have found organizational readiness, perceived benefits and competitive pressures to be the main factors that influence EDI adoption in SMEs. We adapt this framework to our research domain and include perceived risks as an additional factor because of the “outsourcing dimension” of VCC: in the IT and business process outsourcing literature, perceived risks play an important role in the decision making process (Dibbern, Goles, Hirschheim, and Jayatilaka 2004).

The conceptual factors of our research model (i.e., attitude, subjective norm, and perceived behavioral control) are grounded within Ajzen’s (1985) Theory of Planned Behavior (TPB). This theory has been successfully applied to analyze a wide range of aspects of individual behavior like leisure choice (Ajzen and Driver 1992) and health-related behaviors (Godin and Kok 1996). There is a lack of research, however, on the applicability of the TPB on organizational level.

While focusing our research efforts on the willingness of SMEs to adopt VCC, we use both, the TPB as a conceptual framework, as well as the concrete factors from Iacovou’s (1995) research framework of EDI adoption, as pillars for our exploratory research efforts.
VCC Adoption Willingness

The willingness of decision makers within SMEs to adopt VCC is the dependent variable in our research framework. This construct is quite similar to the notion of “intention” within the TPB, which indicates an individual’s readiness to perform a given behavior (Ajzen 1985). We chose not to use this term in order to pinpoint a slight, but important difference between the two notions: The TPB postulates that attitude, subjective norm and perceived behavioral control influence the intention to perform a given behavior (these relationships are summarized in figure 1). Intention, in turn, is the immediate antecedent of actual behavior. Because currently, as stated in the introduction, there is no real VCC offer on the market, VCC represents only a prospective and not a currently valid behavioral option for an SME. Thus, the firm cannot build an intention to actually adopt VCC, but only a willingness to perform this behavior, on the condition that a real VCC offer comes up. This is why we substitute the TPB term of intention with the term of willingness for this specific research domain.

Figure 1. Research Model

Attitude toward VCC Adoption

In the TPB, the attitude toward a certain behavior “[…] refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen 1991, 188). The antecedents of attitude are behavioral beliefs, which represent the subjective probability that the behavior will produce a certain outcome (Ajzen 1985), including positive (perceived benefits) and negative (perceived risks) aspects.

Perceived Benefits

Perceived benefits of adopting new IOS are net benefits that consider utility as well as costs resulting from VCC adoption. Benefits may be generated by the integration of SMEs’ financial processes with the financial value chain of banks under consideration of possible costs related to integration and coordination. Because the model follows an ex ante view of financial services adoption, the notion of perceived benefits refers to manager’s estimations before any system implementation. They are thus “anticipated benefits” (Iacovou et al. 1995) and, as stated there, may differ from the list of obtained benefits, provided by an ex post view. As the positive component of benefits, utility includes “operational savings related to the internal efficiency of the organization” (Iacovou et al. 1995, 468) like reduced costs and time effort as well as improved cash flow and higher information quality (Iacovou et al. 1995). Contrastingly, integration costs refer to set-up investments and internal process adaptations during the implementation phase followed by interaction costs for handling errors, improvements, and changes of the running service.

Perceived Risks

Perceived risk is the “felt uncertainty regarding possible negative consequences of using a product or service” (Featherman and Pavlou 2003, 453) and may possess several facets, which Featherman and Pavlou largely discuss in their study about individual adoption of e-services. Since it is individual’s beliefs that will finally determine organizational decision making, we think that at least some of Featherman’s facets of perceived risks (psychological, financial, performance risks, as well as time and privacy risks) can be incorporated into our research model.
Subjective Norm

In the TPB, subjective norm is an individual’s “perception of the social pressures put on him to perform or not perform the behavior in question” (Ajzen 1985, 12). In an organizational context, the subjective norm is determined by the firm’s competitive environment, as depicted by Porter’s (1985) Five Forces Model. It has been shown in literature that a firm’s environment may indeed influence a firm’s decision towards adopting an innovation; for example, the notion of external pressure is part of the model developed by Iacovou et al., referring to “influences from the organizational environment” (Iacovou et al. 1995, 470). We believe that pressures coming from competitors and cooperation partners positively influence a SME’s willingness to adopt new financial services as a means for improving its relative cost efficiency in secondary processes. Competitive pressure is thus a determinant of subjective norm as a firm’s perception of existing environmental pressures towards performing or not performing the behavior in question (i.e., the innovation adoption). We expect that, the more an SME is motivated to comply with what the competitive environment dictates, the stronger will be the influence of subjective norm on willingness formation.

Perceived Behavioral Control

In the TPB, perceived behavioral control refers to an individual’s perception of being or not able to perform a certain behavior and affects a person’s intention to proceed with the behavior. On organizational level, the perception of decision makers about being or not able to adopt an innovative technology depends on the firm’s technological and financial ability to perform the adoption. This organizational readiness influences the perception about behavioral control and is in turn determined by the level of IT competence within the organization (in terms of people and know-how) and the sophistication of IT resources. How strongly are business processes supported by IS and how are the systems integrated both, within the firm (enterprise application integration technology, service-oriented architecture), as well as with those of business partners (B2B integration)? The more knowledge, IT specialists and IT resources a company possesses and the more effective the IT is used, the higher its “level of sophistication” (Iacovou et al. 1995), that leads to a positive perception of behavioral control.

RESEARCH DESIGN

VCC Scenario

The chosen VCC scenario describes a banking service which, by means of IOS, is integrated into the SME’s ERP system and allows the bank access to invoicing data like payment targets. Using this information, the bank can monitor incoming customer payments (on the bank account) for compliance with the payment targets. If the payment target is exceeded, the banking system can initiate the dunning process (executed either by the SME or by a third party provider). After the payment has been received, the bank reconciles the payment record with the SME’s accounting voucher. Further, knowing the SME’s liquidity history and the liquidity demands in the operational business, the bank can provide liquidity management and cash pooling services over the different bank accounts that an SME might possess. An additional precondition for this functionality would be granting the bank access to the SME’s accounts at other banks.

The scenario was developed concertedly with experts from the banking industry, who conceptually identified promising benefits from the VCC for both, the SME and the bank. Therefore, we decided to apply this scenario to empirically tackle the research question and to explore the VCC adoption research model.

Methodology

To empirically investigate the research model in the SME domain, we conducted a case study series with 11 German firms during 2005. From a regional SME database, we randomly selected 100 firms which fulfilled at least 2 out of the 3 “medium size” criteria of the European Union in 20042, taking heed of a representative distribution of branches3. The reason why we excluded small firms was that for developing hypothetical VCC scenarios, a quite well developed and (more or less) process-oriented IS infrastructure should be present within the company, which would allow the embedding of external services offered by a bank.

2 Medium-sized companies are defined as companies which have between 50 and 249 employees, a turnover between 10 and 50 million EUR, and a balance sheet total between 10 and 43 million EUR.

3 We focused on selecting Manufacturing, Trade/Repair Services, and Real Estate/Renting firms (following the European NACE classification (Eurostat 2002)). These three branches cover 83% of the German medium-size enterprises (FSO 2003). Each of the remaining branches covers less than 5% of the total segment of German medium-size companies.
After identifying the managers responsible for the SMEs' financial processes, we contacted them by means of an initial mailing which explained our aims. Consequently, the managers were phoned and requested for participation. Eleven financial managers agreed and participated to an interview led by two faculty members. The transcripts of the interviews were again sent to the interviewees who had to approve them.

Our research question is of a what type. Methodologists suggest exploratory case studies to answer this kind of questions and to develop theories and derive hypotheses which can be validated in following research steps (Dubé and Paré 2003; Yin 2002). Our case study design follows the criteria for appropriate case study research listed in (Dubé and Paré 2003). E.g., case study methodologists claim for a clear a priori definition of the research questions, of the constructs, and of the unit of analysis. Further, a pilot case as well as a multiple-case design are recommended and have been realized. Beside company reports, interviews with executives responsible for financial processes have been the primary data source of our case studies.

**Demographics**

Table 1 gives a brief description of the participating firms such as demographics and basic IT maturity. The size of the firms taking part in the case studies ranges from 110 to 270 employees, their turnover ranges from 4 to 112 million EUR. Each firm is briefly described in Table 1. Unfortunately, nine of the eleven participating companies belong to the manufacturing branch, although this branch represents only 34% of the medium-size companies in Germany. The remaining two firms (CarSalesCo and TradeCo) are trade companies, belonging to the largest segment (36%). Five of the manufacturing companies serve a worldwide customer base; all of the remaining firms primarily operate in a domestic context.

<table>
<thead>
<tr>
<th>Company</th>
<th>PlasticCo</th>
<th>VacuCo</th>
<th>LeatherCo</th>
<th>CosmetCo</th>
<th>LacquerCo</th>
<th>CarSalesCo</th>
<th>WindowCo</th>
<th>TradeCo</th>
<th>OpticsCo</th>
<th>BakeryCo</th>
<th>PublishCo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of business</td>
<td>Production of plastic goods and pallets</td>
<td>Vacuum technology installations, servicing</td>
<td>Production and Sales of Leather goods</td>
<td>Production of decorative cosmetics</td>
<td>Lacquers production</td>
<td>Car sales, servicing</td>
<td>Production of wooden windows</td>
<td>Trade of roofers goods</td>
<td>Electro-optical instruments</td>
<td>Bakery</td>
<td>Publishing house</td>
</tr>
<tr>
<td>Number and geographic range of customers</td>
<td>800-900 (B2B), worldwide</td>
<td>2,000-3,000 (B2B), worldwide</td>
<td>n.a. (B2B), worldwide</td>
<td>7-9 (B2B), worldwide</td>
<td>1000 (B2B and B2C), mainly domestic</td>
<td>30000 (B2B and B2C), mainly domestic</td>
<td>2000 (B2B), domestic</td>
<td>1000 (B2B), domestic</td>
<td>50 B2B customers and 20 branches, local</td>
<td>5000 to 6000 (B2B), German-speaking countries</td>
<td></td>
</tr>
<tr>
<td>Company size (turnover in million EUR / employees)</td>
<td>23.5/110</td>
<td>74/270</td>
<td>25/150</td>
<td>67/230</td>
<td>n.a./240</td>
<td>112/270</td>
<td>5.6/120</td>
<td>50/110</td>
<td>13/130</td>
<td>4/140</td>
<td>50/170</td>
</tr>
<tr>
<td>Ownership</td>
<td>Founder’s family</td>
<td>Owned by a holding company</td>
<td>Founder’s family</td>
<td>Owned by holding company (cosmetics corp.)</td>
<td>Founder’s family</td>
<td>Founder’s family</td>
<td>Founder’s family</td>
<td>Cooperative</td>
<td>Founder (= managing director)</td>
<td>Founder’s family</td>
<td>Several publishers</td>
</tr>
<tr>
<td>Competitive environment (degree of competition)</td>
<td>Rather high</td>
<td>Low</td>
<td>n.a.</td>
<td>Low (protected by holding)</td>
<td>rather high</td>
<td>High</td>
<td>High, decreasing market</td>
<td>High</td>
<td>Very low, market niché</td>
<td>High</td>
<td>High, decreasing market</td>
</tr>
<tr>
<td>Annual IT budget in EUR / employees</td>
<td>1 M / 6</td>
<td>n.a./3</td>
<td>60.000/2</td>
<td>n.a./n.a.</td>
<td>20.000/2</td>
<td>25.000 to 30.000/1</td>
<td>80.000 to 100.000/5</td>
<td>n.a./n.a.</td>
<td>7.000/0</td>
<td>150.000/2</td>
<td></td>
</tr>
<tr>
<td>Contentedness with IT</td>
<td>Contented</td>
<td>Contented</td>
<td>Contented</td>
<td>Rather discontented (high costs, suboptimal business process support)</td>
<td>Contented</td>
<td>Rather contented</td>
<td>Contented</td>
<td>Rather contented</td>
<td>Contented</td>
<td>Indifferent</td>
<td></td>
</tr>
<tr>
<td>IS support of financial processes</td>
<td>Rather high (60-80%)</td>
<td>High (80%)</td>
<td>(20% are supported by the ERP system)</td>
<td>Very high (95%)</td>
<td>Highly supported by the financial acc. system but not by the ERP</td>
<td>n.a.</td>
<td>Highly supported by the financial acc. system</td>
<td>Very high (99%)</td>
<td>Highly supported by the financial acc. system</td>
<td>Highly supported by the financial acc. system</td>
<td>Rather high (60-80%)</td>
</tr>
<tr>
<td>Integration between different systems (EAI)</td>
<td>Only one system</td>
<td>Interfaces</td>
<td>Interfaces</td>
<td>Batch runs</td>
<td>Batch runs</td>
<td>Manual transfer, batch runs, and interfaces</td>
<td>Manual transfer, interfaces</td>
<td>Interfaces</td>
<td>Interfaces</td>
<td>Manual transfer, batch runs</td>
<td></td>
</tr>
<tr>
<td>B2B integration</td>
<td>Less than 10% of B2B traffic via EDI</td>
<td>None</td>
<td>60% of B2B traffic via EDI</td>
<td>Close integration with holding</td>
<td>30-40% of B2B traffic via EDI</td>
<td>Close integration with OEM</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>B2B integration with print offices</td>
</tr>
</tbody>
</table>

Table 1. Demographics and IT Characteristics of the Participating Firms

Most of the participating firms are owned and led by members of the founder family. Two companies are completely owned by a holding company (CosmeticsCo and VacuCo) and one firm is a cooperative (TradeCo). The competitive environment
varies strongly between the different firms. There are some “high-tech” firms which hold patents and can act in a quite monopolistic space, while there are also classical branches with very strong competition and vanishing low margins such as car sales or the bakery business. One of the manufacturing firms (PlastiCo) was temporarily insolvent within the last 2 years.

RESEARCH RESULTS

Figure 2 shows the aggregated results from the case study series. Perceived potential benefits and organizational readiness of the firms are shown by the two dimensions of the diagram while perceived risks and perceived competitive pressure are represented by shade and shape of the objects. Classification was done by a qualitative approach, e.g. aggregating statements regarding the benefits of the several functions of the VCC scenario. Three firms perceive high or rather high potential benefits from the scenario and show a mature IS infrastructure as well, indicating high organizational readiness. Furthermore, two of them perceive high competitive pressure to optimize or outsource secondary financial processes. The perception of potential risk from VCC adoption differs among them.

Perceived Benefits

PlastiCo, CarSalesCo, and TradeCo see high benefits in the overall VCC scenario. PlastiCo and TradeCo both state that the processes of controlling incoming payments and reconciliation require significant employee time and related expenses because of a very high amount of incoming invoices, compared to the other companies. As a result, PlastiCo has already outsourced the control of incoming payments and has made good experiences.

For the assessment of perceived benefits from outsourcing the cash pooling function, the number of bank accounts is highly important. Firms with six or more bank accounts (e.g., CarSalesCo with 13 accounts at six different banks) perceive potential benefits from outsourcing the cash pooling process as being high. Again, two exceptions were identified. LeatherCo has nine accounts, spread in different countries. But, the interviewee stated that these accounts are almost inactive and are only checked on a monthly basis. The reason for the second exception, TradeCo, is to be found within the company’s governance structure. TradeCo is a cooperative society and each of the 9 branches of the cooperative acts rather autonomously and has its own accounts and cash pooling is not intended to be performed at all.

Although many firms expect high utility from at least parts of the VCC scenario, they believe that integration and interaction costs would exceed the savings, leading to vanishing (net) benefits. They believe that high coordination efforts would be necessary to align the bank’s service with internal branch specific requirements. Although only secondary processes, most firms state that their financial processes are highly specific and require knowledge of the corresponding industry’s particularities. They argue that banks do not possess this specific branch knowledge and are not going to be willing to acquire it.
Perceived Risks

We questioned the companies about their concerns about adopting integrated bank services. Many companies fear that their business data or customer data could abusively used by banks for other purposes. During reconciliation, banks could clearly identify customers that are not able to pay their invoices. Further, banks might notice liquidity problems of their customers if insourcing the cash pooling function. This is why especially owner-controlled companies have a very negative mind-set toward banks. For example, the owners of OpticsCo try to minimize the contact to banks, stating that banks act very intransparent, and that they are too expensive and non-cooperative. Quite contrary, the PublishCo (Ltd.) is totally open toward cooperation, claiming to “have nothing to hide”.

Competitive Pressure

Eight firms perceive strong competition within their industry sector but only four of them believe that optimization efforts or outsourcing of secondary processes would lead to further savings. The possible savings are usually described within a range of a half up to a full employee. Only PublishCo expects to save 20 employees with improved financial processes.

Organizational Readiness

Three companies show low organizational readiness, with BakeryCo being the most extreme case. This firm uses four different IT systems for data collection from its subsidiaries, materials management, accounting, and e-banking and there are media discontinuities which require manual data transfer between those systems. Communication with suppliers is done without IT support (except for email) and they do not have any dedicated IT employees.

PublishCo is an antagonistic example: it uses four IT systems that are highly integrated. Integration with main suppliers is solved optimally as well. PublishCo places an order by automatically sending the request to the connected print shops, analyzes the offers, and automatically chooses the cheapest one.

DISCUSSION AND LIMITATIONS

Although three case study participants perceive potential benefits from optimization to be high, and despite the fact that two of them even face a harsh competitive environment, they have not analyzed optimization and outsourcing opportunities regarding their financial processes, yet. Skiera et al. (2004) have found a corresponding result for large German (non-financial) companies. This indicates a lacking awareness about the efficiency potential lying in financial process optimization. Furthermore, other companies that are forced to conduct their business cost-efficiently (e.g., BakeryCo, due to extreme competition) do not intend to increase their low technical readiness. Of course, in particular business domains, IT and efficient administrative processes play a minor role for the profitability of the overall business.

A major result, visualized in figure 2, is the relationship between organizational readiness and perceived benefits. The lack of firms showing both, low perceived benefits and high readiness leads to the assumption that organizational readiness might be a driver for the perception of benefits. This finding supports Ajzen’s assumption that there are “other kinds of relations among the different theoretical constructs” (Ajzen 1991, 199) of the TPB. Therefore, the model might be adapted by placing organizational readiness as an antecedent of perceived benefits.

Results regarding perceived risk are quite heterogeneous. Firms of different branches and with different ownership structures perceive risks from VCC adoption for different reasons resp. from different aspects of the proposed VCC scenario. Overcoming business risk perception and implementing trust relationships will be a major issue not only in vertical cooperation or in (horizontal) co-opetition but also for establishing particular lateral relationships, although the businesses are less closely interrelated. Major risks feared by SMEs will not be loss from IT security breaches but rather opportunistic behavior of the business partner.

There are, of course, some limitations to our research. First, the model’s constructs were derived from literature and have been adapted to a structurally new phenomenon. Therefore, the model may be incomplete. This is why we chose an exploratory approach which allows refining the model and enables qualitative research resulting in a continuation of the model design. Second, because there are no banking offers for VCC in the market, the construct evaluations had to happen in a rather “soft” and visionary way. Although we tried to estimate cost savings from outsourcing particular business functions, integration costs and interaction efforts cannot be precisely estimated. We will try to tackle this problem by implementing a prototype together with partners from the software and banking industry. This way, we will enable deciders to provide better estimations of the benefits. Third, one limitation is lacking representativeness of the results. Nevertheless, because it is an exploratory study, the gathered data from a wide range of different businesses has led to a sophisticated understanding of the discussed VCC adoption drivers and inhibitors. In a following explanatory step taking place after the final model has been
derived, this will be further investigated applying a large questionnaire-based survey which also will address banks representing the “supplier side”.

Finally, the selection of the VCC scenario itself may lead to feedbacks on the definition of the model itself, and will also have implications on the impact which the constructs have on the adoption willingness. As argued above, the chosen scenario was developed with experts, who saw promising benefits for both, the SME and the bank as service provider. Further, all functionalities provided by the hypothetical VCC are offered through either banking products or software tools today, except they are not integrated with the SME’s systems. Nevertheless, when testing the research model in a further research step, this has to be done for more than one VCC scenario.

CONCLUSION AND FURTHER RESEARCH

In this paper, we developed a research model of factors that influence the willingness of SMEs toward VCC adoption, which we then investigated in a series of eleven case studies. Although specifically asked, our interview partners were not able to think of other factors that might influence their willingness. Nevertheless, the results gave valuable insights into the interrelationships between the antecedents of adoption willingness, such as organizational readiness driving or enabling perceived benefits. Further research will have to take care about this issue.

Goal of this paper was to set a theoretical foundation for our research by evaluating factors that influence the willingness of SMEs toward VCC adoption and to provide first empirical (exploratory) insights from the application domain. As already mentioned, in further steps research will be extended to a cross-sectional analysis. We will broaden the analysis by testing our research model through a representative evaluation of adoption factors in a questionnaire-based survey, which will include banks. The simultaneous evaluation of potential VCC from both the supplier and customer side can give substantial insights into the future layout of an integrated, market-oriented, financial value chain network. This way, we hope to provide a substantial contribution to the understanding of lateral cooperation based on B2B integration (VCC) between SMEs and banks as well as to the effective design and successful implementation of VCC.

ACKNOWLEDGEMENT

This work was developed as part of a research project of the E-Finance Lab, Frankfurt am Main. We are indebted to the participating universities and industry partners.

REFERENCES