Digitalization of the Banking Industry: A Multiple Stakeholder Analysis on Strategic Alignment

Full Paper

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Abstract

Today, enterprises from many industries experience that moving towards a digital business is a major challenge. The banking industry is heavily affected by the digital transformation as customers' expectations drive the need for adapting strategies, processes and IT. So far, studies on the digitalization in the banking industry have either focused on the strategic level, the customer perspective or the internal perspective. In our study, we integrate the findings of previous studies for each perspective by employing a multiple-stakeholder analysis. The results show that the internal processes and IT systems are not yet ready for meeting the demands of the strategic and customer perspective. The banks' digital strategy is often well-aligned with the customer needs but both are weakly aligned with the internal organization and IT. Especially the low integration of IT and the low degree of process automation are identified as inhibiting factors for the digital agenda.

Keywords

Digital Transformation, Digitalization, Digital Business, Banks, Banking, Strategy, Alignment

Introduction

The term digitalization is used by media, companies and science for describing a "process of moving to a digital business" (Gartner 2016, p. 201). Today, enterprises from many industries recognize that making this move is a major challenge with heavy impact on existing business models (Butler and Hackney 2015; Veit et al. 2014). One industry, which intensively discusses strategies for digitalization, is the banking sector (Cziesla 2014; Graupner et al. 2015). Due to the acceleration of technological change and the fierce competition, companies have come under pressure in recent years (Lasi et al. 2014; Scott 2007).

So far, studies on the digitalization in the banking industry have either focused on the strategic level or on the customer perspective. On the strategic level, studies analyze and discuss the impact of digitalization on business strategies and business models (Schmidt and Drews 2016). On the customer level, studies from research and practice seek to describe and explain customer behavior in selecting and adopting new technologies and services (Aladwani 2001; Bain & Company 2014; Pousttchi and Schurig 2004; Pozza and Texier 2014; Roland Berger and Visa 2015). In addition to these two perspectives, banks should also consider the internal organization and the IT systems as relevant input for assessing the current state of digitalization (Ross et al. 2015; Venkatraman et al. 1993). The alignment of business strategy, internal organization and IT as well as customer requirements will become increasingly difficult (Bygstad 2015). Especially the current trends of heavyweight and lightweight IT (Bygstad 2015) as well as the collaboration with digital IT-driven companies like fintechs (Hanelt and Krüp 2015) increase the importance of an ongoing alignment within the company as well as with its customers and partners. Our study aims at achieving a better understanding of these perspectives by employing a multiple stakeholder analysis with a regional focus on Germany as one of the world's leading economies. The study is guided by

the following research question: "What are the current strategic alignment gaps of German banks facing the digital transformation?"

The remaining paper is structured as follows: First, we briefly present the overall methodological approach and the theoretical background. Second, we describe findings for all three perspectives and analyze their alignment. Third, we summarize the strategic fit among the three perspectives. Fourth, we discuss the theoretical and practical implications and give an outlook on future research questions.

Theoretical Background and Methodological Approach

According to our research question, we focused on strategic alignment gaps in the digitalization within the German banking industry. As stated above, different stakeholders are involved in the process of digitalization. Therefore, we chose a stakeholder analysis (Freeman 1984; Gupta 1995; Pouloudi 1999; Sharp et al. 1999) as an overarching research approach for our study. The term "stakeholder" is defined as parties that have a stake in the decision making process of an organization in its general meaning (Goodpaster 1991). Freeman (1984) defines it as follows: "A stakeholder in an organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization's objectives." According to the framework of Mallott (1990), we followed three steps to analyze the different stakeholders.

For identifying the different stakeholders involved in the strategic alignment, we used the well-established model of Venkatraman et al. (1993). This model describes four basic concepts, which are linked to each other. By drawing upon the model, we identified three dimensions that are relevant for the process of digitalization. "Business strategy" and "IT strategy" (called "external domains" in the model) are combined to the dimension called "strategic management". The concepts "organizational infrastructure and processes" and "IT infrastructure and processes" are combined to the "internal domains" referring to the dimension of internal end-users. The last-mentioned link ensures the internal fit between external requirements and the delivery capability. In relation to the customer orientation within the digitalization, we used the customer perspective as an extension to the strategic alignment model as described by Avison et al. (2004). Based on the strategic alignment model, we defined three dimensions for the further analysis in this paper: (1) Strategic Management (StratDir), (2) Customer Requirements (CustReq) and (3) End-users of internal Organization and IT (OrgIT) (see Figure 1).
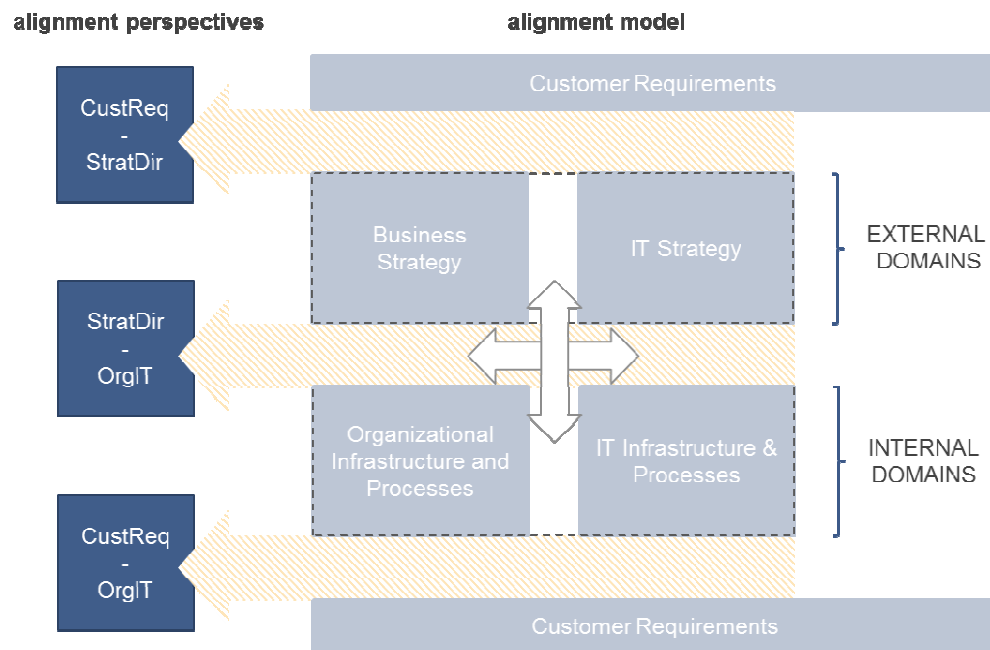

Figure 1. Alignment perspectives according to Venkatraman et al. (1993)

For each stakeholder group, we specified the interests and characteristics. After each analysis, we aggregated the data and identified the key interests of each stakeholder group. In the second and third step, we identified and described the relationships between the stakeholders. The execution of steps two and three is supported by a stakeholder map (Freeman 1984; Hosseini and Brenner 1992). The stakeholder map is used to measure stakeholder value and influence weights (Hosseini and Brenner 1992). In our analysis, we used the aggregated key aspects to compare the different perspectives to each other. For each of these stakeholder groups, we employed a different methodological approach. The decision was based on the insight, that there is data available from publications for two perspectives (strategic management, customers' perspective), while data is scarce for one perspective (the internal end-users' perspective). In following, we give an overview of the three dimensions, which have been analyzed.

Customer perspective (CustReq): As the changing customer behavior is often described as a major driver of digitalization, we conducted a systematic literature review regarding the customer perspective. The three phases of literature search, literature procure and literature exploitation were carried out (Okoli 2015). In the first phase, a non-systematic search conducted out using a variety of electronic literature databases. On this basis, a keyword list has been created to conduct a systematic literature search (Okoli 2015). The systematic literature review followed the methodology of vom Brocke et al. (2009) with English and German terms. Additionally, we defined which databases, journals and conferences should be used for the search. Five electronic databases are stemming from the field of computer science, selected on the basis of its portfolio of literature as well as the quality of the literature (Knackstedt and Winkelmann 2006). In addition, the eight journals of the Basket of Eight of AIS, five international conferences and Google Scholar were included in the literature search. The databases, journals and conferences were searched by using the terms from the keyword list. The aim was to identify scientific literature as well as publications from practice to include both perspectives. As a result, 32 sources on the topic of customers' perspective were preselected and retrieved. Within the literature exploitation, excerpts for the definition and the topics of digitalization were created. The excerpts were used to examine the reference to banks and the relevance of the sources. The relevance was determined by the description of one or more customer requirements, the description of requirements of different target groups and in case of studies the number of participants and its requirements on processes, products or services. Finally, 15 of 32 publications were classified as very relevant and analyzed regarding the current requirements and needs of customers in the banks' process of digitalization.

Strategic perspective (StratDir): A systematic literature review was conducted for assessing the current state of knowledge regarding the strategic perspective of digitalization in the banking industry. The three phases literature search, literature procure and literature exploitation were carried out (Okoli 2015). According to the methodological approach for the customer perspective to digitalization, we reused the approach as described above for this perspective. Therefore, only the differences are mentioned in the following. In the first phase, a non-systematic search for the term digitalization was carried out by using a variety of electronic literature databases. This non-systematic search resulted in an overview of the definitions, topics and examples of digitalization. On this basis, a keyword list has been created to conduct a systematic literature search (Okoli 2015). Related terms of digitalization as well as digital transformation and digital revolution were used. As a result, 52 sources were preselected and retrieved on the topic of digitalization without a restriction regarding the industry. We created excerpts for the definition and the topics of digitalization based on the literature. The excerpts were used to examine the reference to banks and the relevance of the sources. The relevance was determined by the description of general strategic directions within the digitalization of banks and the description of processes, products or services for specific strategic directions considering different target groups of customers. Finally, 28 of 52 results were classified as very relevant. The results were analyzed regarding impacts on the core strategic direction of banks and structured by using the business model canvas (BMC).

End-users of Organization and IT (OrgIT): For the third perspective, we conducted an empirical study with a strong focus on end-users inside the internal organization and IT within banks. We decided to use an online survey-based approach instead of a literature research, because only a few publications address the current state of internal organization and IT from an end-users' perspective (Schmidt et al. 2016). We received 130 valid responses. The results were published in (Schmidt et al. 2016) and show that banks suffer from a low degree of integration of their IT systems, too less optimization of business processes, non-realized automation potentials and a lack of end-user training (ibid.).

Customers' Requirements and Their Interaction with Banks

As stated above, the customers exert an increasing influence on the way enterprises operate in the digitalization. To understand the requirements and the ways of communication between banks and its customers, the current situation is described based on literature from science and practice. The first major factor influencing the relationship between customers and banks is customer loyalty. Customer loyalty currently focuses on mobile banking (Bain & Company 2014). The second major factor is the interaction between the financial institutes and the customer. In 2013, about 70 percent of the interactions were carried out via online channels, ATM and smartphone/tablet. In Germany, 65 percent of the interactions are carried out on online channels, smartphone/tablet, 25 percent on branch and 10 percent on phone or other (ibid.). The conditions change when customers open a bank account. In this situation, up to 45 percent use the channel branch in Germany (ibid.).

Pozza and Texier (2014) differentiate communication channels used during pre- and post- purchase. In the pre-purchase process, mainly the website, call centers, e-mail, aggregators and mobile are the most important channels for customers. Thereof, the website, call centers, e-mail aggregators, mobile, social media and chat become more and more important within the pre-purchase process. The all-over use of mobile technology increased from 8 percent in 2014 to 16 percent in 2015. Regardless of the business model of a bank, users frequently using mobile channels show a higher customer loyalty than other users (Bain & Company 2014). In Germany, the leaders in mobile banking are comdirect and Deutsche Bank (ibid.). Mobile banking becomes valuable for customers due to the possibility of buying products or services anywhere at any time (Carrothers 2015). The number of branches of credit banks and savings banks decreased from 16000 to 10000 between 1989 and 2014 (Koye and Auge-Dickhut 2014). High fees, the ease of opening an account, ATM locations, online service and mobile payments but also branch locations are important factors that influence the customers' decision for choosing a certain bank (Bain & Company 2014). The savings banks are the leader in selling their own products to their existing customers (ibid.).

In Germany, the global trend to unbundle products has gone further and become a very specialized market with many different banks (Roland Berger and Visa 2015). However, it is also stated that the traditional branch is not dead (ibid.). Two-thirds of all customers wish to receive advice on complex products at a branch. However, there are also digital advisors available. Both of the following conclusive statements fit to the described situation: "The greater the perceived information requirements for a particular process, the lower is the customers' intended digital process use." and "The greater the perceived process risk, the lower is the customers intended digital process use." (Graupner et al. 2015). Therefore, banks have to deal with hybrid customer interactions. On the one hand, customers want to interact with banks using online channels especially for gathering information and for opening a bank account. On the other hand, customers want to talk to a real employee if they need information about complex products (Nüesch et al. 2015). To conclude, we analyzed several studies, which provide information regarding customer requirements. Based on this analysis, we identified five key customer requirements (see Table 1).

ID	Short Name	Description
CustReq 1	Fast Processes	Customers demand for fast processes with low costs.
CustReq 2	Transparent Products	Customers demand for unbundled and easy understandable products.
CustReq 3	Anywhere Products	Products must be available anywhere at any time on all devices and at branches.
CustReq 4	Preserve Branches	For 30 % to 70 % of the customers, the branch is an important channel. 66 % wish to receive advice on complex products at a branch.
CustReq 5	Mobile Banking	Customers want to carry out interactions via online channels, mobile channels, call centers, e-mails and agencies.

Table 1. Customer Requirements (CustReq)

Directions of the Strategic Management: Changing Business Models

The strategic management of banks focusses on different parts of their business models to tackle the challenges of digitalization. The following explanations summarize the results of our literature review. The literature was structured by using the BMC. Based on this analysis, we identified seven key strategic directions for digitalization in the banking sector (see Table 2).

Key Partners: The key partners are significantly affected by the digitalization. IBM (2014) mentions a reinvention of relations between companies. Cziesla (2014) reiterates this statement and stresses that this reinvention is enabled by digital technologies, which make it possible to interact with a transnational network with potential partners. Banks integrate venture units and establish so-called innovation laboratories to examine such potential partnerships (Cziesla 2014).

Key Activities: Within the key activities, the support of digital channels requires changes of structures and business processes (Brenner et al. 2014). Companies are facing the challenges to industrialize and to integrate innovative existing business processes and structures in parallel (Auge-Dickhut et al. 2015). For this reason, the optimization of the value chain is still relevant for the digitalization efforts. Special attention is paid to business process variants (Gaskin et al. 2012).

Key resources: One key resource is the organizational culture. Only companies with a high innovation affinity, particularly in the technology sector (Scott 2007), can actively participate in the digitalization. Companies that are in business for a long time tend to have a rather weak capacity for innovation in the field of digital technology (Scott 2007). Organizational hierarchies should be reduced through decentralization, to act more quickly by using short decision processes (Lasi et al. 2014). In addition, the architecture of the companies must be well-defined and standardized as well as based on reusable technology (Scott 2007). The used digital technology has to be coordinated with each other (Berman 2012). The variety of digital technologies led and still leads to an increasing volume of information that needs to be optimized (Sola et al. 2015).

Value propositions: Digitalization changes the value proposition of business models. The first area is the product differentiation. Product differentiation is a consequence of more dynamic customer needs that require appropriately adapted products (Jahn and Pfeiffer 2014). The behavioral products for example can be adapted in real time to the browsing or consumer behavior (Koye and Auge-Dickhut 2014) of the individual customer. Thus, the market shifts from a seller's to a buyer's market (Lasi et al. 2014).

Customer relations: Customer relationships are fundamentally affected. The customer demands are changing from static and predictable to continuous adapting and unpredictable (Jahn and Pfeiffer 2014). This altered usage of media requires more frequent interaction. However, many companies react rather than act in an active way. Companies are encouraged to focus on the crucial customer interactions (Berman 2012). Further topics such as big data and analytics stress the relevance of tools (IBM 2014) to create precise user profiles for inventing financial products, which fit to the individual customer (Koye and Auge-Dickhut 2014). Customer loyalty can be established by inventing innovative products and outstanding service (Bain & Company 2014).

Channels and customer segments: Within the channels element of the BMC, the omni-channel approach (Bain & Company 2014) and improved communication and collaboration with customers (Sola et al. 2015) are core requirements. The goal of approaches in this area is to improve the customer experience when interacting with companies through integrated and co-existing communication channels. The interfaces to customers move in the context of digitalization of localized and personal to anywhere and impersonal. Furthermore, banks prioritize the use of customer segmentation and structure the related business areas accordingly (Bain & Company 2014). Digitalization allows and requires a fine-grained analysis of customer segments. Two core segments emerge: "economy" and "premium" (Bain & Company 2014).

Revenue streams and cost structure: The two topics cost structure and revenue streams are less discussed in the context of digitalization in banks. In the literature, general topics from other sectors are referenced. For example, the reduction of production costs (Sola et al. 2015) and the ecological and economic use of resources (Lasi et al. 2014) are mentioned.

ID	Short Name	Description
StratDir 1	Omni-channel Approach	Banks wants to improve the customer experience by integrating co-existing communication channels.
StratDir 2	Individual Products	Banks often uses two core segments: "economy" and "premium". Within these segments, fine grained customer segments are necessary.
StratDir 3	Innovative Products / Out-standing Service	Customer loyalty can be established in banks only by inventing innovative products and outstanding service.
StratDir 4	Reinvention of Partnerships	Digital technologies make it possible to interact in a transnational network with potential partners. Banks integrate venture units and so-called
StratDir 5	Digitalize Business Processes	Companies have to industrialize and to innovate existing business processes and structures.
StratDir 6	Organizational Culture	Companies need to understand their employees as their most valuable asset and to establish an innovation culture.
StratDir 7	Digital Technology	Only companies with a high innovation affinity actively participate in the digitalization. Digital and physical technologies must be integrated.

Table 2. Strategic Directions (StratDir)

End-User Perspective on Digitalization: Organization and IT

The end-users of the internal organization and IT are an inherent part of the ongoing digitalization of banks. We conducted a study to get a deeper insight into the current state of the daily work. The following explanations summarize the results of the conducted study. Based on our study on the current status of work order processing in banks from the end-user perspective, we identified four core findings for the multi-perspective analysis. The results are shown in Table 3 at the end of this section.

Input Data: The first domain "types of input data" deals with the different types of incoming work orders. 84 % of the respondents say that even in the digital age the trigger of work orders is often or very often a phone call or a personal conversation. This channel requires at least one employee for each request. 42 % say that a structured form like structured e-mail, fax or letter is used. "Structured" means that clearly defined values in a foreseeable order reach the bank. The online channel, which also includes mobile devices, is mentioned by 57 % rarely or very rare. The unstructured e-mail is predominantly used, because 68 % of the respondents say that they get very often or often unstructured e-mails. Unstructured means that undefined values in a random order reach the bank.

Distribution of Work Orders: The distribution of incoming work orders depends on structured and unstructured format. 12 % the respondents say that the distribution of work orders is automated. Vice versa, 88 % say that the incoming work orders are distributed manually. Hence, the subsequent work order processing includes many manual tasks carried out by the employees. The remaining part of the employees says that a manual distribution of a work order is directly delivered to a specific employee. The last aspect means that 31 % of the respondents say that the knowledge of a specific employee is needed to process an incoming work order.

Work order processing: Only 66 % percent of the respondents stated that the work order processing is supported by an IT system. All other respondents mention that work orders have to be processed manually. The usefulness of the used IT systems is stated by 19 % as more complex and more time consuming with the IT system than in former times when the work orders were processed manually. Whereas 81 % of the respondents say that the processing of work orders became more efficient with the IT systems in use. In 34 % of all incoming work orders, five or more IT systems have to be used to process a single work order. Most cases require three to five IT systems for a single work order.

Training: Another question was about the training for employees before working with the IT systems. 49 % of the employees answered that they were inadequately prepared. 6 % just got a handbook for the IT system, 27 % participated in an information event and 16 % got a quick demonstration of the IT system.

Limitations of the IT systems in use: Despite the high complexity of the used IT systems for work order processing, only 62 % answered that the IT systems have been optimized within the last three years. 38 % say that an improvement of only 10 % was achieved. Furthermore, aspects like inadequate usability (e. g. high complexity of user interfaces) and critical problems with performance are stated as the main

limitations of today's IT systems. One respondent mentioned long response times of the IT systems as an example for a critical problem. Even the availability of the IT systems was mentioned as an issue. One responded reported that an IT systems was not available for three days.

Improvement: The participants were asked for possibilities to improve the efficiency of processing works orders. 21 % of all participants think that there are no further possibilities for improvement available due to the individuality of each work order. In contrast, 45 % think that at least 20 % of the work order volume can be automated in the future. The participants from the departments back office, electronic banking / payment, investment / depot, private customer service, accounts and credit see room for further improvement of the work order processing. Especially electronic banking / payment and back office are stated as the most important departments for achieving improvement.

ID	Short Name	Description
OrgIT 1	Low Integration of IT	The integration of existing IT systems is rather low.
OrgIT 2	Low Process Optimization	Current processes have not been optimized to a sufficient degree during the last years.
OrgIT 3	Great Automation Potentials	Great non-realized potentials for automating the processes of work-orders exist.
OrgIT 4	Additional Training Needed	End-users need additional training for being able to fully realize the IS potentials.

Table 3. Organization and IT (OrgIT)

Integrating the Three Perspectives: Strategic Fit or Misfit?

In this step, the strategic alignment of the three stakeholder groups is analyzed pairwise. To conduct this analysis, we rated the strategic fit by contrasting two perspectives with each other. For this purpose, we used the requirements from the customer perspective, the directions of the strategy and the challenges of the internal organization and IT as described in the previous sections. For example, for each customer requirement, we tested the alignment with each strategic perspective. Three alignment levels have been defined. The "-" means negative alignment, "o" refers to neutral alignment and "+" shows a positive alignment. If, for example, the omni-channel approach (StratDir 1) supports the mobile banking (CustReq 5) then a "+" is listed in the cell of Table 4. If there is no dependency between two aspects, an "o" is written in the cell of the table. Otherwise, if two aspects are contradictory then a "-" is written in the cell. The table was filled out based on the above-mentioned results from the literature analysis. Additionally, we conducted a cross check with three employees of a consultancy from the banking sector to validate the results from a practical point of view.

Strategic Alignment of CustReq and StratDir: Customer requirements are well supported by the strategy of the banks. Each customer requirement is supported by at least two strategic directions. 20 cells out of 35 cells are identified as well aligned and 15 as neutral. On this level, there are no aspects, which contradict each other. In detail the availability of anywhere products, fast processes and mobile banking are very well supported by the strategy of the banks. Especially, the innovative products, the reinvention of partnerships and the digitalization of business processes are the main counterparts to the customer requirements. While the customer requirement "preservation of branches" is only supported by the "omni-channel approach" and the "digital technology".

Strategic Alignment of OrgIT and CustReq: Organization and IT is weakly aligned with the customer requirements of the banks. Not any customer requirement is directly supported by the organization and IT. 11 cells out of 20 cells were identified as conflicting. That means the strategy is not well aligned to the organization and IT. For example the low integration of IT as well as the low process optimization contradicts fast processes, anywhere products and mobile banking. It also can be stated that the great non-realized automation potentials contradict the preservation of branches because of high costs for processing single work orders. Hence, the underlying processes within the corresponding bank must be standardized and highly automated. In contrast, the typical input of a work order is unstructured without a possibility to distribute the work order in an automatic way to the correct department. But especially for complex products, specialized employees are needed within branches and call centers.

Strategic Alignment of StratDir and OrgIT: The strategy is weakly aligned with the organization and IT. Not any strategic direction is aligned to the organization and IT. 23 cells out of 28 cells identified as a conflict. For example, the digitalization of business processes and the intensive use of digital technology failed within the organization and IT dimension. In particular, the low integration of IT and less trained employees are the main problems. In addition, the reinvention of partnerships on a strategic level cannot be operationalized because of low process optimization and non-realized automation potentials.

ID	Cust Req 1	Cust Req 2	Cust Req 3	Cust Req 4	Cust Req 5	Strat Dir 1	Strat Dir 2	Strat Dir 3	Strat Dir 4	Strat Dir 5	Strat Dir 6	Strat Dir 7
StratDir 1	o	o	+	+	+							
StratDir 2	o	+	o	o	o							
StratDir 3	o	+	+	o	o							
StratDir 4	+	o	+	o	+							
StratDir 5	+	o	+	o	+							
StratDir 6	+	+	+	o	+							
StratDir 7	+	o	+	+	+							
OrgIT 1	-	o	-	o	-	-	o	-	-	-	o	-
OrgIT 2	-	o	-	o	-	-	-	-	-	-	-	-
OrgIT 3	-	o	o	-	-	-	o	-	o	-	-	-
OrgIT 4	-	o	o	-	o	-	o	-	-	-	-	-

Table 4. Alignment of CustReq, StratDir and OrgIT

Digitalization strategy should gain high priority by traditional banks, because indirect impacts from the financial crisis, the changing behavior of the customers and the strict regulation need to be integrated into such a strategy. In the realization of the digitalization strategy, traditional banks have its individual shortcomings as the alignment analysis shows. Bharadwaj et al. (2013) argue for a digital business strategy to improve the alignment of business and IT strategy with the internal domains. The resources and capabilities of the internal domains have to be tightly integrated (Chan and Ahuja 2015). Therefore, companies have to build a digital infrastructure, which contains the emerging IT and its organizational infrastructure and processes. The use of digital resources should enable companies to break their traditional boundaries and operate in new spaces (Kim et al. 2015). Traditional partnerships and tight supply chains are changing to loosely coupled business ecosystems. The collaboration with digital IT-driven companies, in the banking industry called fintech companies (Kim et al. 2015), on digital platforms within new ecosystems (Hanelt and Krüp 2015) will be an important strategic issue.

Conclusion and Further Research

In the beginning, we briefly discussed the ongoing process of digitalization of banks and the involved stakeholders. Regarding our research question, we focused on the strategic alignment gaps and analyzed the involved stakeholder perspectives in detail to answer the question. Finally, we learned that the internal organization and the IT are only weakly aligned with the customers' requirements and the strategy of the company. Hence, it seems that the existing models like (Peppard 2001), which aim at increasing the alignment of business and IT, did not achieve its goals. In contrast and according to (Bharadwaj et al. 2013), the prevailing view on IT infrastructure and process on the functional level has to be closer aligned with the companies' external domains. The organizational and the IT infrastructure and processes are also not well aligned with each other. For example, the results of the end-user study showed that the IT systems do not fit to the requirements of the employees to enable an effective and efficient way of processing their daily work. This lead us to the conclusion that there is a strategic misfit between external and internal domains.

According to methodological approach, we used an extension of the strategic alignment model to define the stakeholders for the multi-perspective analysis. Extending the strategic alignment model by also considering the customer as suggested by Avision et. (2004) turned out to be useful and necessary for our study. We recommend further integrating this dimension in the alignment model, as the customer gets an

essential actor in future strategic alignment processes. In particular, the customer needs to be focused even more when the alignment of the internal organization and IT and the customer are discussed. This paper also contributes to practice. First, the identification of the key requirements and directions can be used for comparing a bank's situation with the general trends in the banking industry. Second, the cross-dimensional analysis sheds light on the different areas, in which stakeholder demands and requirements need to be aligned. Special attention should be paid to the integration, optimization and automation of business and IT processes.

Our research is limited as we only focused on banks with its headquarter in Germany. Furthermore, we analyzed the requirements, directions and alignment gaps on an abstract industry level. Future research might seek to explore the status and plans of digitalization in the banking industry by taking a case study approach and by exploring the different perspectives we integrated in our study in depth. We only discussed the key aspects, which we reduced to a maximum of ten per dimension. For future research, we suggest to analyze emerging ecosystems and the impact of fintechs on business models and processes.

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