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MASTERING DIGITAL TRANSFORMATION: THE PATH OF A FINANCIAL SERVICES PROVIDER TOWARDS A DIGITAL TRANSFORMATION STRATEGY

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Research paper

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Abstract

To master the challenges of a digital transformation and to systematically address IT's multifaceted transformative impacts on an organization's inner and outer environments, top management is increasingly formulating and implementing a digital transformation strategy (DTS). To date, there have been few details of DTS formation concerning its underlying processes and activities. In this study, an interpretive case study approach is employed and DTS formation is investigated from a process/activity perspective. By using an activity-based process model that builds on IS strategizing, an in-depth case study at a large financial services provider was conducted. The results show that this DTS was predominantly shaped by a diversity of emergent strategizing activities through a bottom-up process and prior to the introduction of a holistic approach by top management. Top management then sought to formalize emergent strategy contents by formulating and implementing a DTS that comprised a shared target picture, distinct digital transformation governance, and measures to increase the share of deliberate strategy contents. Besides providing practical implications for DTS formulation and implementation, this study contributes to the literature on digital transformation, IS strategy, and IS strategizing.

Keywords: Digital Transformation Strategy, Strategy Formation, Financial Services, Case Study.

1 Introduction

To master the challenges of a digital transformation and to systematically address the multifaceted transformative impacts of information technologies (IT) on an organization's inner and outer environments, top management is increasingly formulating and implementing a digital transformation strategy (DTS) (Porter and Heppelmann, 2014; Ross et al., 2016; Yoo et al., 2012; Yoo et al., 2010). The introduction of a DTS reflects the specific conditions of a digital transformation, which can be observed in organizations across numerous traditional industries (e.g., Agarwal et al., 2011; Lucas and Goh, 2009; Piccinini et al., 2015). Particularly the pervasiveness of IT-induced changes and the growing variety of digital initiatives as well as related infrastructures across the organization that top management faces are major managerial challenges (Henfridsson and Bygstad, 2013). Therefore, a DTS is supposed to coordinate, prioritize, and implement an organization's digital transformation efforts and, on this basis, to govern its journey to achieve the desired future state of being digitally transformed (Matt et al., 2015).

Digital transformation is understood as the extended use of advanced IT, such as analytics, mobile computing, social media, or smart embedded devices, and the improved use of traditional technologies, such as enterprise resource planning (ERP), to enable major business improvements (Westerman et al., 2014b). It goes beyond the digitization of resources and involves the transformation of key business operations, products, and processes, leading to revised or completely new business models (Veit et al., 2014). Thus, a digital transformation is a specific form of organizational transformation enabled by information systems (IS) (Besson and Rowe, 2012) that requires dedicated strategies, which integrate both a technological perspective and a business one (Bharadwaj et al., 2013). The latter is a paradigm shift for IS strategy research, since prevailing IS strategy concepts have primarily been technology-centric (Chen et al., 2010; Teubner, 2013). Consequently, IS strategy research must adapt to this new perspective and needs to come up with new approaches – such as the DTS concept.

Reflecting on the well-known content/process dichotomy in business strategy research (Pettigrew, 1992), IS strategy research is already aware of some facts about the content of a DTS (e.g., Hansen and Sia, 2015; Hess et al., 2016), but little is known about this topic from a process and an activity perspective. In particular, and with only one exception (Chanias and Hess, 2016), there has been very little work on DTS formation. A review of relevant IS literature reveals that, to date, very few studies in IS strategy research have considered questions concerning IS strategy formation (e.g., Auer and Reponen, 1997; Hackney and Little, 1999; Henfridsson and Lind, 2014; Horton, 2003; Waema and Walsham, 1990; Walsham and Han, 1993; Walsham and Waema, 1994). Yet, in the digital transformation context, the call for research on strategy formation (Mintzberg and Waters, 1985) has again become relevant, since an in-depth understanding of DTS formation and its underlying processes and activities would help top managers to identify the right levers to master a digital transformation. I therefore address the following research question:

What processes and activities affect the formation of a DTS in organizations?

To answer this question, I employed an interpretive case study approach and investigated the DTS formation of a large financial services provider. The selected organization from the financial services sector is well suited to study the question, since it is in the middle of a digital transformation and is thus not yet fully transformed – allowing for an in-depth investigation of DTS formation, because key processes and activities are still reproducible. As a theoretical background, I used Henfridsson and Lind's (2014) activity-based process model, which builds on the concept of IS strategizing. This study seeks to contribute to a better understanding of DTS formation in organizations from a process/activity perspective.

The remainder of this paper is structured as follows: Initially (Section 2), I explain the study's theoretical background (the activity-based process model). Then (Section 3), I describe the research approach – the underlying methodology (an interpretive case study), the case selection, and the data collection and analysis process. Next (Section 4), I present the findings from the studied organization (FinCo). Moreover (Section 5), I discuss the organization's path towards a DTS. Finally (Section 6), I address theoretical and practical implications, the study's limitations, and further research options.

2 Theoretical Background

2.1 From IS strategies to digital transformation strategies

The concept of IS strategy is understood as "[…] the organizational perspective on the investment in, deployment, use, and management of information systems" (Chen et al., 2010, p. 237) and is constructed in three prevailing perspectives: (1) IS strategy as the use of IS to support business strategy, (2) IS strategy as the master plan of the IS function, and (3) IS strategy as the shared view of the IS role within the organization. Although they belong to corporate strategy, IS strategies are usually not treated as part of business strategies; yet, they seek to support and question the latter (Chen et al., 2010; Earl, 1989). There is a long tradition of research activities on IS strategies, which declined after a peak in the 1990s, leading to the situation "[…] that academic recommendations are rarely adopted by practitioners, if they are perceived at all" (Teubner, 2013, p. 243). To overcome this shortcoming of prevailing IS strategy research, several studies have looked into new research directions (e.g., Merali et al., 2012; Ward, 2012).

A very recent approach is the consideration of IT from a business-centric perspective, such as the concept of a digital business strategy, which consolidates IS and business strategy (Bharadwaj et al., 2013). While this concept incorporates a digital business perspective, such as IT's possibilities for products, services, or business models, it does not provide transformational insights in the course of an organization-wide digital transformation. In consequence, the concept of a DTS was established, as an approach to coordinate, prioritize, and implement an organization's digital transformation efforts – with the objective of governing an organization's journey to achieve the desired future state of being digitally transformed (Matt et al., 2015). Although a DTS must also be aligned with other strategies in an organization, its introduction marks a change from the common requirement to align a subordinate IS strategy with business strategy in order to allow for an IT-enabled business transformation (Bharadwaj et al., 2013;

Henderson and Venkatraman, 1993; Venkatraman, 1994). In this study, I built on the DTS concept and investigated DTS formation by relying on theories from IS strategizing.

2.2 IS strategizing as a theoretical anchor point

For IS strategy research, the rise of IS strategizing represents a *practice turn* and thus a shift in interest from strategy content to strategy process as well as related practices and activities (Galliers, 2009; Peppard et al., 2014; Pettigrew, 1992). Recent work on IS strategizing is strongly influenced by the strategy-as-practice school, which understands strategy development as a social practice (Marabelli and Galliers, 2016; Teubner, 2013; Whittington, 1996). Strategy-as-practice "[…] emphasizes the actual day-to-day activities, contexts, processes and content that relate to strategic outcomes" (Peppard et al., 2014, p. 1). The strategy-as-practice literature focuses primarily on the operational reality of organizations and studies strategizing activities from a micro-perspective (Jarzabkowski, 2005; Johnson et al., 2003). Taking a micro-perspective also implies the need for using distinct research methods that allow one to capture social practice (Peppard et al., 2014). In line with the strategy-as-practice literature, IS strategizing can be understood as the doing of IS strategy based on a process of goal-directed activities such as deployment, management, or investment in IT with the purpose of realizing IS-based strategies in organizations (Henfridsson and Lind, 2014). I used IS strategizing as a theoretical anchor point, but transferred its main ideas to processes and activities that affect DTS formation in organizations.

2.3 The activity-based process model

To investigate DTS formation, I adapted Henfridsson and Lind's (2014) activity-based process model, which was originally developed to study the formation of IS-enabled strategies. It reflects Mintzberg's (1978) well-known work on strategy formation, which considers the relationship between intended and realized strategies. Thus, the model makes use of Mintzberg and Waters' (1985) widespread strategy typology concerning deliberate and emergent strategies, which should be regarded as the two ends of a continuum along which a realized strategy lies. The realized strategy should be perceived as the result of a pattern in a stream of actions taken in line with, despite, or owing to the absence of top management intentions. Following this tradition, which integrates ideas of both the formal-rational and the power-behavioral approaches to strategy formulation (Waema and Walsham, 1990), the activity-based process model regards strategy formation as a complex organizational process that is influenced by the activities of numerous actors across the organization – "[…] suggesting that strategy reflects the collective mind of all the organizational members through their intentions and/or by their actions" (Chen et al., 2010, p. 237). For this reason, the model incorporates Jarzabkowski's (2005) strategy-as-practice lens and focuses on the strategizing activities in the overall organizational community, particularly by its sub-communities, who represent the variety of actors shaping an organization's emergent strategy based on their specific practices (Henfridsson and Lind, 2014). The model has three distinct phases (see Figure 1):

Contextual conditions: At the beginning of strategy formation, an event caused by conditions of an organization's internal and/or external context triggers the initiation of strategic activities by top management. In reaction, top management formulates a proactive or reactive (deliberate) strategy.

Activity-based production of strategy contents: The organizational community regards the initial strategy formulation by top management as a call to enact the strategy. Organizational sub-communities approach the deliberate strategy and try to develop the strategy further. Thus, sub-communities get involved in the production of strategy contents through emergent strategizing activities by making use of their local technology-mediated practices, which "[…] represent the dynamic pattern of activity that is enacted as to realize a coherent set of intentions" (Henfridsson and Lind, 2014, pp. 24-25). Initially, strategy contents become emergent candidates that are rooted in these technology-mediated practices. In a next step, emergent candidates can materialize as contents of the emergent strategy – if the organizational community accepts and supports these contents. Although emergent candidates might not be realized as contents of the emergent strategy, they will still enhance the basis for further activities by the sub-communities. As a result, insights generated during the process will be incorporated into future practices of the overall organizational community, based on a feedback loop.

Strategy outcome: Finally, the realized strategy represents the strategy outcome, which integrates elements of both the deliberate and the emergent strategy. The emergent strategy was primarily shaped by strategizing activities of involved organizational sub-communities.

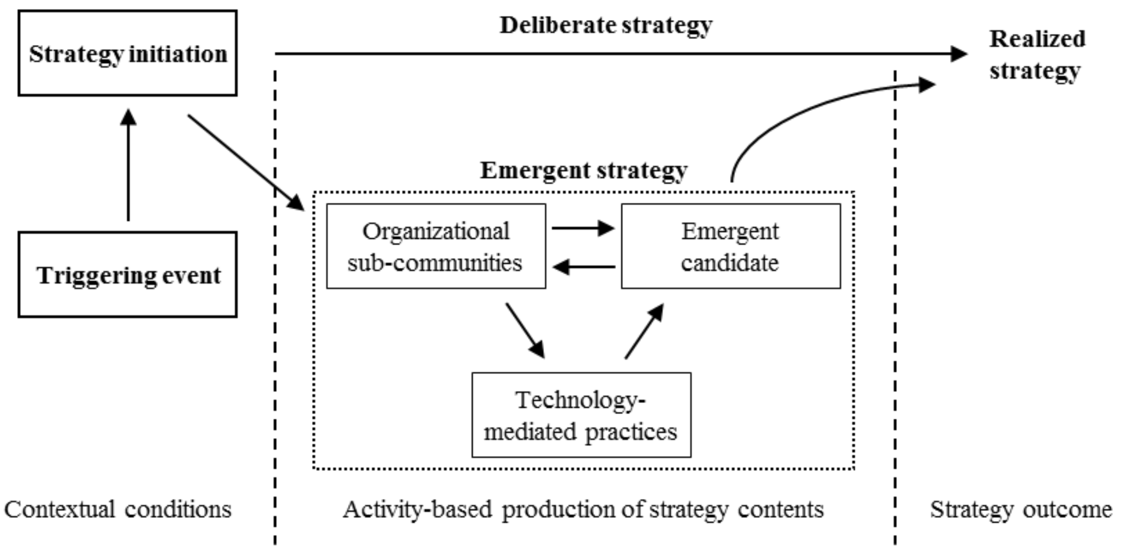

Figure 1. The activity-based process model (adapted from Henfridsson and Lind, 2014).

In this study, I used the five elements *triggering event*, *strategy initiation*, *deliberate strategy*, *emergent strategy* (all in Section 4), and *realized strategy* (in Section 5) as a descriptive framework. *Emergent strategy* summarizes considerations concerning organizational sub-communities, technology-mediated practices, and emergent candidates (see the dotted line in Figure 1).

3 Method

3.1 Interpretive case study

I used an interpretive case study to investigate the content, context, and process of organizational change (Pettigrew, 1987, 1990) induced by DTS formation. Both positivist (Benbasat et al., 1987; Dubé and Paré, 2003) and interpretive (Walsham, 1995a) case studies are well-established research approaches in IS research (Keutel et al., 2014). Yet, these approaches are not equally suitable for studying the same research question types, owing to fundamental differences in their philosophical basis concerning their epistemological and ontological positions (Walsham, 1995b). While the positivist tradition follows the natural science model of social science, interpretive field research derives from anthropology, phenomenology, and hermeneutics (Klein and Myers, 1999). Further, interpretive research assumes that knowledge of reality is only generated through "[…] social constructions such as language, consciousness, shared meanings, documents, tools, and other artifacts" (Klein and Myers, 1999, p. 69). Thus, the investigation of sense-making and meanings is at the core of interpretive case studies in IS research, which seek to understand both the context and process of IS, and how they influence each other (Walsham, 1993). Since DTS formation is based on organizational processes and activities that are hardly observable in a holistic way, an approach relying on interpretations of a variety of social constructions concerning DTS formation was the appropriate research strategy for this study.

Interpretive field research can be based either on in-depth case studies or ethnographies (Klein and Myers, 1999). The main distinction is the amount of the time spent in the field and the extent of the researcher's participant-observer involvement. For this project, I chose an in-depth case study, since the position of an outside observer with no direct involvement in action in the field (Walsham, 1995b, 2006) was seen as a more practical approach concerning the extent of data collection. To assure methodological rigor during the research process, the seven principles for interpretive field research developed by Klein and Myers (1999) were applied during data collection and analysis (see Appendix). Also, the recommendations and quality criteria proposed by Walsham (1995b, 2006) were used as a guideline.

3.2 Case selection and description

My main intention was to investigate the formation of a DTS in a large organization that is in the middle of a digital transformation and that is from a traditional industry. Further, key case selection criteria were the requirements that top management had started or had intensified digital transformation efforts in the past five years and had already introduced an organization-wide DTS. I chose an organization from the financial services sector that is not yet fully transformed, allowing for a detailed investigation of DTS formation, because important processes and activities are still reproducible. The selected financial services company (FinCo) operates globally and is a relevant player in the market. Its service offering is predominantly concentrated in insurance and asset management. The insurance business offers a wide range of products for both private and corporate customers; the asset management business focuses on the management of a large portfolio of assets with active investment strategies. From an organizational perspective, FinCo can be characterized as primarily relying on a federal group organization with a holding company at the top and numerous international and national subsidiaries as operating entities below. FinCo's top management started to intensify its digital transformation efforts in 2011, and had introduced an initial DTS in 2012 and a revised DTS in 2016, both at group level.

3.3 Data collection and analysis

Since I conducted an interpretive case study from the perspective of an outside observer, primary data sources were semi-structured interviews and archival data (Walsham, 1995a). The data collection in the field took place between April and October 2016, a period of seven months[1]. Overall, the collected data (for an overview, see Table 1) allowed to achieve a sufficient information level and to develop a comprehensive understanding of DTS formation at FinCo.

Data source	**Description**	**Amount**
Interviews	Holding company	5 interviews (5 respondents)
	Subsidiaries (6)	13 interviews (12 respondents)
	Total	**18 interviews (17 respondents)**
Archival data	Internal archival data	58 documents
	External archival data	19 documents
	Total	**77 documents**

Table 1. Overview of the collected data.

In total, 18 interviews (17 respondents) with management representatives from FinCo's holding company and six subsidiaries (i.e. organizational sub-communities) were conducted. Interviewed management representatives came from various hierarchy levels (mostly middle and top management) and had relevant backgrounds in FinCo's digital transformation efforts based on positions related to strategic planning, IT, or project management. Exemplary job titles of the interview partners were Chief Digital Officer (CDO), Chief Operating Officer (COO), Head of Digital Strategy & Transformation, Program Manager Digitization, Head of Digital Projects, Head of Digital Department, or Head of IT. Two management representatives were interviewed twice during the research process and one interview was held

[1] Data collection was supported by a master thesis at the Institute for Information Systems and New Media at LMU Munich.

with two participants at a time. The interview length was between 25 and 60 minutes (mean: 32.07 minutes). Most of the interviews were tape-recorded and transcribed verbatim; five had to be conducted informally and were documented by writing memos directly after the interaction. More than eight hours (481.02 minutes) of recorded material and 56,633 words from transcripts and memos were produced during the interviews. The reviewed archival data consisted of internal sources (58 documents), such as communication notes, strategy documents, annual reports, or media releases, and external sources (19 documents), such as media reporting, case studies, or analyst reports, and were primarily used to understand the content and strategy process of the DTS as well as to provide a contextual background of the research setting (Klein and Myers, 1999). This data covered the period from 1999 to 2016 and amounts to 77 documents.

Collected data was gathered and coded in a comprehensive case study database using the software ATLAS.ti. The coding was based on a descriptive coding scheme derived from the phases and elements of the activity-based process model. To ensure data analysis quality, the coding was conducted independently by two researchers. In preparation for the coding process, both researchers first read all transcripts, familiarized themselves with the collected data, and proceeded in line with the fundamental principle of the hermeneutic circle (Klein and Myers, 1999). After both researchers had completed the initial coding process, a consensual approach was taken, so that obvious differences and necessary coding scheme refinements were bilaterally discussed and resolved during a second round of coding. Since the study investigated strategy formation using the canonical strategy typology by Mintzberg and Waters (1985) that is embedded in the activity-based process model, the guidelines for examining strategy formation by these authors (Mintzberg, 2007) were also applied to support data collection and analysis.

4 Results

In this section, I present the findings by applying the four elements *triggering event*, *strategy initiation*, *deliberate strategy*, and *emergent strategy* as a framework.

4.1 Triggering event

General context: Over time, FinCo grew into a globally operating yet fragmented and federal group organization, mainly driven by large mergers and acquisitions. The group generally comprises numerous international and national subsidiaries, which were used to operate quite autonomously. Among other reasons, this is because the insurance business is highly regulated, with very different regulations across countries that force national subsidiaries to adapt to a specific regulatory policy. Overall, these circumstances led to a conglomeration of numerous independent subsidiaries with different strategic directions. At the top of FinCo is a holding company that originally started as a small finance holding. Over the last years, the holding company’s roles have changed, since it has grown in resources and workforce, and has increasingly taken over management tasks for the whole group. Today, it focuses on consolidation and centralization in order to leverage synergies within the group – for instance, concerning IT, because FinCo must deal with legacy structures and a fragmented IT landscape. However, the group’s federal structure and the various subsidiaries’ strong postions still cause issues concerning the acceptance of central governance. An interviewee noted: “There is always the problem to what extent the holding company is accepted by the subsidiaries.” Especially FinCo’s largest subsidiaries have a critical relationship with the holding company, since they see themselves as responsible for large parts of the group’s revenues and profits, and make claims for autonomy owing to their better market knowledge. Further, there are several particularities at FinCo concerning its conservative company culture, which is less dynamic and tends to be risk-averse. Thus, structured proceedings for strategic activities, such as planning dialogues or annual programs, are widely accepted management practices in the group. Also, a risk avoidance culture that favors secure IT solutions is common at FinCo: “Instead of trying out lots of things and the risk to fail early, the expectation is still that a new solution must work and should be a standard that must be conformed to,” as one interviewee stated.

External triggering event: The interviewees highlighted changed customer preferences based on new technological developments as the most important external trigger for the formulation of both the initial DTS in 2012 and the revised DTS in 2016. Expectations concerning service levels had been increasing, since customer expectations and behavior had changed drastically. This change was strongly shaped by experiences that customers were making outside the financial services sector, for instance, with Internet companies or companies with a background in consumer electronics. As one interviewee explained, "[…] this means that customers do not judge if we have the best customer journey compared to other insurance companies, but with all their other life experiences." Besides the key topic of customer-centricity, another important external trigger mentioned by the interviewees was the changed competitive situation in the financial services sector, also due to new technological possibilities. So, FinCo's incumbent competitors were aggressively trying out new approaches for digitizing parts of their business. In addition, smaller and web-based direct insurance companies were increasingly taking away revenues from larger players. Apart from the activities of traditional players, new entrants from the Internet industry also posed a threat for FinCo's competitive position. In this context, FinTech start-ups equipped with lots of venture capital were seen to have the potential of disrupting the whole sector in the mid- and long-term.

Internal triggering event: As indicated by the interviewed managers, two main internal triggers at FinCo influenced the formulation of the revised DTS in 2016. First, and although FinCo found itself to be in a comfortable economic position at the time of the study, decreasing profits in recent times motivated top management to explore potential new revenue sources and measures to optimize the cost base enabled by digitization. Second, a change in FinCo's leadership structure based on the nomination of a new Chief Executive Officer (CEO) in 2015 led to the introduction of a new strategic agenda that consisted of several pillars, of which customer-centricity and digitization were the most important. The new CEO highly prioritizied FinCo's digital transformation. An interviewee noted: "Our new CEO accelerated the whole digitization topic, placed a greater focus on it and provided the budget. That's why we now see many digital transformation efforts happening." Another interviewee stressed the interplay between internal and external triggers: "Of course, our previous CEO wouldn't have done anything like that; he's from another generation. So, the CEO change was a trigger point, but also external events, so it's a mixture of both."

4.2 Strategy initiation

According to the results, the starting point of the DTS formation was around 1999 (see Figure 2). At that time, several e-business activities in selected FinCo subsidiaries started to emerge. Further, several subsidiaries became involved in digital transformation efforts, formulated digital agendas, and started digital initiatives over the following years. At the holding company level, top management sought to increase its governance and initiated central digital transformation efforts in 2011. Thus, the COO, who was formally responsible for IT in the board, took a leading role in driving the formulation of the initial DTS. The responsible Program Manager Digitization under the COO explained: "In the first phase, we had to understand the content and implications of new developments, such as cloud, mobile, social, or big data. Based on this, we developed an understanding of digital ecosystems and how our customers are using them and connecting with us through sensors and devices." As a result, an in-depth analysis to better understand the requirements for digitally transforming the company was conducted. Based on this analysis, an initial DTS was developed by the holding company's management in collaboration with stakeholders across the group. A milestone was marked in 2012, when FinCo's top management introduced this initial DTS at group level. The initial DTS was supposed to set the strategic direction for FinCo's group-level digital transformation and to serve as the guiding element in the transformation process. The implementation of the initial DTS started in the same year, lasting until 2016.

Further milestones in the DTS formation were passed in 2015. After the new CEO had taken over responsibility in mid-2015, he and his team developed a new strategic agenda for the group during his first months. He presented his agenda, comprising five main strategic initiatives, at the end of 2015. At the center of the new strategic agenda were customer-centricity and digitization. The idea behind this new agenda was to initiate a huge strategic and cultural transformation process for the entire organization. Although the new agenda pre-defined the key directions for digitally transforming FinCo, exact measures had not yet been revealed. About this, at a large town hall event, the CEO said: "That's your thing. You must develop this together, because we don't have any blueprints."

Key measures for the operationalization of the new strategic agenda were taken after its introduction. Also in 2015, the new role of CDO at the holding company level was announced; the CDO would be in charge of FinCo's digital transformation and would report to the COO. Shortly thereafter, in early 2016, the new CDO created and announced a digital transformation unit under his responsibility, to support him concerning DTS formulation and implementation, since the new CDO's primary task was to translate the new strategic agenda into a revised DTS. Strategy formulation took place during the first months of 2016, when the CDO and his team developed a revised DTS that built on the initial DTS at group level. This strategy was presented to and swiftly approved by FinCo's board; its implementation could start before mid-2016.

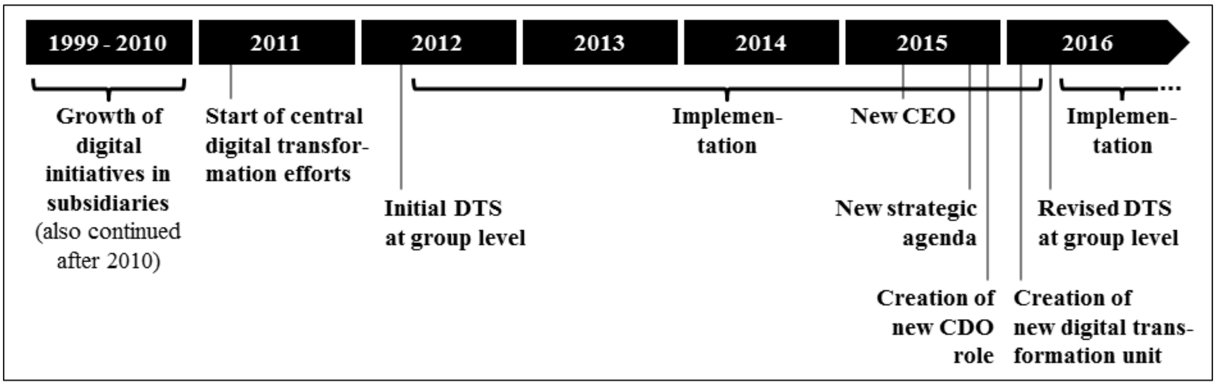

Figure 2. Chronological sequence of FinCo's DTS formation.

4.3 Deliberate strategy

4.3.1 Initial DTS at group level (2012)

The initial DTS at group level was developed to set the strategic direction for the group along three key dimensions: *interaction*, *analytics and products*, and *productivity*. *Interaction* centered around customers and comprised multichannel and customer contact. The goal was to grow digital relationships with customers across all distribution channels and to change the frequency and quality of customer contacts through them. *Analytics and products* dealt with FinCo's offerings and the underlying pricing and risk selection, for instance, to offer digitally enabled and fully integrated solutions to existing and new customer segments, or to leverage big data for risk-based and market-based pricing. *Productivity* addressed the areas operations, IT, and employees with the objective of creating a digitally empowered organization and deploying scalable and flexible IT solutions, including new approaches in business intelligence or comprehensive infrastructure programs.

Several measures were taken to implement the initial DTS. To start with, top management sought to create a shared understanding of FinCo's digital transformation among all involved subsidiaries. One manager noted: "I think having a shared language to say, on a specific country level, 'this looks good', is absolutely fundamental. If you cannot prove to a subsidiary what a good example in a market is, the organization will be unable to transform, because every country has its own interpretation." Since the subsidiaries were supposed to drive the transformation, the DTS also provided a framework to support the alignment of digitization efforts, for instance, via internal CEO dialogues. At the same time, top management also intended to support the subsidiaries' transformation efforts by providing digital assets. The idea was to consolidate all efforts in the group and to create transparency and consistency across all processes. In the course of this process, the holding company introduced assessment criteria for each key dimension of the DTS. The subsidiaries were then asked to rate themselves based on these criteria via a maturity model and to pre-define their ambition levels for the coming years, which also helped them to communicate during strategic management meetings, such as annual planning dialogues or management round tables, and eventually to define and track their own digital initiatives and agendas.

The maturity assessment approach turned out to be very effective. The program manager noted: “About three months after the introduction, we had the first picture of how digital FinCo was in every country and why.” The assessment was repeated annually, which also led to refined measurement methods and to better and more detailed results. Further, key performance indicators (KPIs) were defined for tracking. The central program management also investigated the investments related to digitization by each subsidiary and developed a digital investment index for benchmarking and scoring. This approach enabled the holding company to reveal subsidiaries’ investments in all relevant digital areas and to assess whether the investment allocations were appropriate. On this basis, top management was also able to decide which areas required more investment and focus, particularly to help the subsidiaries to build shared (digital) group assets that were re-usable across the group. Another holding company focus was continued investment in the implementation of a global core insurance platform for leveraging economies of scale. This platform relied on re-usable and adaptable components, allowing for local adjustments by subsidiaries. By achieving a harmonization of systems, this platform was also supposed to support standardization throughout all processes in the group.

4.3.2 Revised DTS at group level (2016)

The revised DTS was supposed to enable FinCo to use two main levers. The first lever was intended to gain a digital return from the investments in the digital transformation. A key aspect of this was to achieve complete digital communication with customers and to eliminate expensive paper communication by fully digitizing the major internal processes. The second lever required the creation of additional value from digital transformation efforts for the group and its customers, based on simple digital product designs that reduce complexity. Thus, the revised DTS was organized in two building blocks, addressing the *transformation of the existing business* and the *adaption to the changing business environment*. Concerning building block one, several areas of action were defined; these comprised a comprehensive customer journey digitization, the establishment of strategic partnerships for participating in wider digital ecosystems, and the creation of scalable digital offerings and fully digital distribution models to directly reach customers. Building block two addressed the integration of new business models based on digital venturing activities, the enhancement of big data and analytics capabilities, and the definition of business requirements for a systematic requirement prioritization and orchestration for FinCo’s core IT platforms.

In particular, the measures for transforming the existing business were supposed to harmonize subsidiaries’ digital agendas under a single roof by creating a platform for co-creation and to drive collaboration between the subsidiaries and the central functions. A manager explained: “Local digital initiatives are really welcome. But we have to connect the local and global initiatives in order to create one true global digital story, and so to create a win-win story by combining local and global creativity.” Another manager noted: “FinCo has always been very federal and fragmented. But this is something you cannot change overnight. Of course we try to bring things together where it makes sense. It is not very reasonable to develop the same app 30 times in 30 countries.” A key measure was to bring experts from different areas of the holding company and the subsidiaries together to elaborate on concepts for an end-to-end digitization of customer journeys. The collaboration was facilitated and coordinated by the central digital transformation unit. With this approach, FinCo’s holding company wanted to promote a new collaboration model in the group that was based on the sharing of knowledge as well as financial and human resources. Thus, all subsidiaries were directly involved in achieving cost synergies from joint digital transformation efforts across the organization.

To facilitate this undertaking, the established KPI concepts from the initial DTS were adjusted. While the previous digital tracking concepts were established to understand the subsidiaries’ digital capabilities, the revised DTS shifted the KPI tracking system’s focus to understanding the transformation progress and the impacts of digitizing specific customer journeys. A digital transformation board was also created as a steering committee in charge of critical decisions for the transformation process. Further, company-wide communication measures, such as employee events and prizes for successful digital initiatives, were put in place. A manager explained: “In such a huge organization, you must permanently communicate and advertise great initiatives and make them easy to understand.” In short, FinCo was heading towards a more centralized structure, reinforced by the creation of shared group assets and platforms. A manager noted: “That’s the only way digitization works. If everyone starts to do his own things, it will work somehow, but with resources maybe ten or twenty times higher than otherwise.”

4.4 Emergent strategy

As shown, FinCo’s federal group organization relies on various subsidiaries that were used to operating fairly independently. Owing to their high operational freedom, almost all subsidiaries (i.e. organizational sub-communities) had autonomously initiated digital transformation efforts and produced emergent strategy contents until top management intended to govern these. From a chronological perspective, most of these emergent strategizing activities were initiated before FinCo’s holding company started the central digital transformation efforts in 2011. A manager of a large subsidiary noted: “Of course we have a digital agenda, with a special, dedicated budget allocated to different digitization projects.” Thus, several subsidiaries had already defined dedicated digital agendas and invested in digital assets, based on their local customer preferences. Overall, it seemed that opportunities for developing shared digital assets were systematically missed, and that there was uncontrolled growth of digital initiatives across the group. It was obvious that synergies were not used and that many digital initiatives were redundant. For instance, internal archival data showed that more than 20 different solutions for customer portals had been developed over time. Further examples for redundant digital initiatives targeted areas such as sales, contact administration, or claims management, and could be identified across almost all subsidiaries active in the insurance business.

This uncontrolled growth of digital initiatives was accompanied by a duplication of dedicated governance for digital transformation efforts in the subsidiaries. So, the emergent strategizing activities were also reflected in the subsidiaries’ organizational structure, for instance by appointing managers for digital transformation in their boards or by creating own digital transformation units. Most subsidiaries had been shaping FinCo’s emergent DTS by producing emergent candidates in response to their market and customer needs. To produce emergent candidates, these subsidiaries relied on a variety of technology-mediated practices, such as the use of internal IT capabilities within the own IT departments, or collaboration with FinCo’s central IT service provider, which was already developing and providing shared group assets such as modular platforms; yet, only in very few cases the subsidiaries collaborated among themselves. Further, most of the subsidiaries used lean, agile, and fast approaches – such as the lean startup method or by developing minimum viable products. They also hired external service providers, since many resources were not available in-house, and time-to-market was shorter.

5 Discussion

Until the initial DTS at group level was formulated and introduced by top management in 2012, the *realized strategy* – which is mostly a matter of interpretation, since it lies between deliberate and emergent strategy – seemed to be predominantly shaped by a diversity of emergent strategizing activities through a bottom-up process, driven by subsidiaries’ (i.e. organizational sub-communities’) various digital initiatives and agendas. This obviously resulted in the uncontrolled growth of digital initiatives across the group without any systematic governance by top management, leading to inefficiencies, unused synergy potentials, and a lack of transparency about ongoing digital transformation efforts from the perspective of the whole organization. A manager from an important subsidiary described the initial situation thus: "The first pressure to act arises directly in the business. Then all subsidiaries start their initiatives and, at some point, central management realizes that there are numerous initiatives that are not coordinated and don't fit together. And then you start to consolidate the overall strategy." Mintzberg and Waters (1985, p. 271) ascribe this to a common management practice that "[…] not a few deliberate strategies are simply emergent ones that have been uncovered and subsequently formalized." In line with this common practice, the most obvious interpretation is that FinCo's top management sought to formalize the contents of emergent strategy via a shared target picture and distinct digital transformation governance, which were subsequently created by the initial DTS in 2012 and enhanced by the revised DTS in 2016. Table 2 summarizes FinCo's path from triggering event to realized strategy.

Element	**Findings at FinCo**
Triggering event	*External*: Changing customer needs and increasing competitive pressure (initial and revised DTS at group level). *Internal*: Decreasing profitability and a CEO change, including a new strategic agenda (revised DTS at group level).
Strategy initiation	First (de-central) digital initiatives by subsidiaries were started in 1999; central digital transformation efforts were started in 2011 by top management and were progressively enhanced until 2016 – for instance by creating a CDO role in 2015.
Deliberate strategy	Formulation of an initial DTS (2012) and the revised DTS (2016) at group level: A shared target picture for all ongoing digital transformation efforts, distinct digital transformation governance, and measures to increase the share of deliberate strategy contents.
Emergent strategy	Numerous digital initiatives and agendas across FinCo's international and national subsidiaries, which were established between 1999 and 2016.
Realized strategy	Predominantly shaped by a diversity of emergent strategizing activities via a bottom-up process – emergent strategy contents were subsequently formalized by top management's DTS.

Table 2. FinCo's path from triggering event to realized strategy.

The interplay between deliberate and emergent strategy can be interpreted as follows: Initially, deliberate activities sought to understand the subsidiaries' emergent strategizing activities and related strategy contents. They also intended to create a shared language and strategic direction for digital transformation in the group, and to support the alignment of transformation efforts between the holding company and the involved subsidiaries. To also drive centralization from a technological perspective, these managerial efforts were accompanied by the creation of deliberate strategy contents, such as the development of shared group assets for providing central digital platforms. Further, new approaches to support collaboration, coordination, and transparency between the holding company and subsidiaries as well as among subsidiaries were put in place. Overall, extensive digital transformation governance comprising dedicated structures (e.g., the new CDO role, including a new digital transformation unit and a digital transformation board), processes (e.g., digital maturity assessments or specific KPI tracking), and relational mechanisms (e.g., the new collaboration model for customer journey digitization) was created (Van Grembergen and De Haes, 2009) to facilitate FinCo's digital transformation over the course of the implementation of the initial and the revised DTS.

However, several interview partners highlighted that emergent strategizing activities prevailed, and that the uncontrolled growth of digital agendas and initiatives in the group did not diminish. So, there were parallel deliberate and emergent digital transformation efforts – even after top management started central efforts and after the initial and revised DTS were introduced. One explanation for this situation was the low acceptance of top management's deliberate activities, since subsidiaries remained reluctant to accept the deliberate strategy contents such as the shared group assets and still preferred to develop their own assets and digital solutions. An interviewee from a national insurance subsidiary noted: "At group level, it's all about scalable assets. The group imagines creating a solution, which is then scaled up across all local entities. In theory, that sounds really great, perfect. But we saw that very simple things failed in practice, because every single subsidiary used their own special units in the end." Even the group CEO openly acknowledged: “Of course, there is always a cultural fight between the holding company and the subsidiaries.” Many subsidiaries were skeptical about delayed efforts by top management to govern already ongoing strategizing activities and to increase the share of deliberate strategy contents. An interviewee commented: “It’s the classic situation: corporate digital strategists jump on the bandwagon late and try to develop something ex post that is supposed to help the markets.” This might also be why FinCo’s new CEO decided to appoint a CDO, who introduced the revised DTS in 2016, since harmonization efforts during the implementation of the initial DTS were ineffective. To sum up, FinCo’s realized strategy, at the time of the study, can be interpreted as mainly relying on emergent strategy contents that were embedded into a formalized framework consisting of a shared target picture and distinct digital transformation governance subsequently created by the holding company.

6 Conclusion

6.1 Theoretical and practical implications

Concerning the research question – *What processes and activities affect the formation of a DTS in organizations?* – one can conclude that the DTS in the examined federal group organization was predominantly shaped by a diversity of emergent strategizing activities through a bottom-up process and prior to the introduction of a holistic approach by top management. Relevant activities driven by various digital initiatives and agendas could be observed in the majority of subsidiaries, demonstrating the pervasiveness of IT-induced changes throughout the organization. Top management then sought to formalize emergent strategy contents by formulating and implementing a DTS – based on a shared target picture for all ongoing digital transformation efforts, distinct digital transformation governance, and measures to increase the share of deliberate strategy contents. Particularly the digital transformation governance was supposed to align pre-existing emergent strategy contents with intentions of top management and among organizational sub-communities.

These findings correspond with the results of a previous study that investigated a similar research question, using other large organizations with different industry backgrounds and structures (Chanias and Hess, 2016). Thus, initial DTS formation in large organizations seems to be driven by highly dynamic bottom-up processes and various emergent strategizing activities in the organizational community. By contributing this process/activity perspective on DTS formation in organizations, this paper complements the literature on digital transformation, IS strategy, and IS strategizing. It also represents one of the first studies to investigate DTS formation from a process/activity perspective generally, and the first to examine the phenomenon based on an interpretive approach using an in-depth case study.

The findings have practical implications for management representatives of large organizations seeking digital transformation. This and a previous study (Chanias and Hess, 2016) showed that the formulation of a dedicated DTS is a key measure by top management to master and systematically address the challenges of digital transformation. Further, a key measure for implementing a DTS is the creation of distinct digital transformation governance that facilitates collaboration, coordination, and transparency concerning the diversity of digital transformation efforts and related digital initiatives that usually exists in large organizations.

Although initial DTS formation in large organizations might be explained by dynamic bottom-up processes and emergent strategizing activities, this circumstance neither implies that top-down processes and deliberate efforts should be neglected, nor that top management’s role is limited to DTS formulation. On the contrary, top-down efforts play a key role, as other work on this subject has already shown: “Large companies are prone to both inertia and entropy; it can be tough to get started, and even tougher to keep things moving in the same direction. The only effective way we’ve seen to drive transformation is top-down, through strong senior executive direction coupled with methods that engage workers in making the change happen” (Westerman et al., 2014a, p. 6). On the one hand, a DTS formulated by top management is intended to provide the organization with a consistent strategic direction for all ongoing and planned digital transformation efforts – and should guide the organizational community in envisioning the desired future state. On the other hand, top management must permanently govern and remain involved in ongoing strategizing activities in the organizational community during DTS implementation, for instance through a specific digital transformation unit.

6.2 Limitations and further research

I acknowledge limitations of this study. Using an interpretive research approach based on the application of the widely accepted set of principles for the conduct and evaluation of interpretive field research proposed by Klein and Myers (1999), I stuck to the most obvious interpretation of the realized strategy and FinCo's path towards a DTS. Yet, other readers still might come to different interpretations. Moreover, I acknowledge that findings might not be generalizable and therefore transferred to other organizations. Here, it must be noted that this study investigated the formation of a DTS in a large organization from the financial services sector with specific characteristics, in particular a federal group organization. Thus, further research needs to verify whether the results also apply to organizations with different characteristics, such as size, industry affiliation, and/or structure. Additionally, and although I conducted an in-depth case study, I acknowledge that this study only captured parts of the relevant processes and activities at FinCo. It also remains an open question whether the sought digital transformation will be achieved and whether the processes and activities will change until this state is reached. For this reason, a longer and deeper involvement in the field based on an ethnographic research design (Myers, 1999) would be desirable, since this approach allows one to better understand DTS formation from a process/activity perspective (Peppard et al., 2014). In this context, a promising research direction would be to deepen understanding of digital transformation management practices, and to study details of their design and their overall influences on an organization's digital transformation process.

Appendix

Principle	Application of the Principle
1. The Fundamental Principle of the Hermeneutic Circle	Iterations were conducted between studying the activities of the holding company as well as relevant subsidiaries, and the overall context of FinCo. The empirical insights were continuously mirrored with the elements of the chosen theoretical background in order to identify similarities and discrepancies.
2. The Principle of Contextualization	Different kinds of data were reviewed to trace the background of FinCo and its different subsidiaries, e.g. concerning already existing digital initiatives.
3. The Principle of Interaction Between the Researchers and the Subjects	Archival data was used to crosscheck interpretations of the interviewees that were captured during the interaction with the researcher.
4. The Principle of Abstraction and Generalization	A set of theoretically and empirically substantiated abstractions for the partly different meanings was developed during the coding process – in order to understand the big picture of FinCo's DTS formation.
5. The Principle of Dialogical Reasoning	The theoretical base of the paper was critically reflected on a regular basis. Consequently, the focus of the research setting was broadened during the examination (e.g. on IT governance), which came up as important topic during the interviews with FinCo's management representatives.
6. The Principle of Multiple Interpretations	The interpretations and outside assessments by actors in the holding company and in different subsidiaries of FinCo were the basis to ensure a broad understanding of the social context of the case study.
7. The Principle of Suspicion	Multiple data sources supported a critical position concerning the statements by the interviewees.

Table 3. Application of the seven principles for interpretive field studies (adapted from Klein and Myers, 1999).

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