Organizational Capabilities for Business-IT Integration in Digital Enterprises

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Abstract—The digital transformation urges organizations to become digital enterprises. Digital enterprises require the integration of business and IT to efficiently leverage digital technologies. However, there is a lack of a framework that guides organizations on what organizational capabilities are required to achieve business-IT integration. The goal of this paper is to identify these capabilities. From a single case study, we derived twelve organizational capabilities that a digital enterprise, driven by technology, should design in terms of its people, organizational structure, and tasks to establish business-IT integration. Thus, this paper provides guidance for organizations to approach business-IT integration as a foundation for their path into a digital enterprise.

Index Terms—Digital enterprise, organizational capabilities, case study, business-IT integration, Leavitt's diamond model.

I. INTRODUCTION

IN 2017 digital transformation was the key topic of the World Economic Forum in Davos with leading business and political participants [1]. This transformation process, in which digital technologies are causing disruption, is triggering strategic responses from companies that try to adapt their value creation and manage changes in their structures to achieve the best outcomes in this process [2]. While digital technology has changed rapidly in the meantime, with upcoming topics like Artificial Intelligence, Low-Code Development, Cloud Computing, Internet of Things (IOT), etc. [3], companies are still struggling to achieve this transformation on a broad organizational level [4]. The results of a recent survey from 2024 indicate that the topics of organizational change, agile organization, and business-IT collaboration remain at the top of CIOs' agendas [5]. Digital maturity models identify the key issue of digital enterprises [6] as a part of digital transformation that should be responsible for parallelizing and integrating organizational with technological change, or reducing the gap in the rate of change between the two. Furthermore, regarding the outcome of digital transformation, new technologies themselves do not bring competitive advantages, however, superior management of technology does [7]. In the vision to become an integrated technology organization, companies must, therefore, identify measures to manage their digital transformation. Current research is focused on determining e.g. the maturity of IT management [8], business process management [9], or knowledge management [10] in digital enterprises. To foster these measures, however, companies still struggle with the adoption of their organization to the digital technology changes and in operationalizing these approaches on a broad level [11]. According to this problem, we aim to bring in a more strategic perspective on these measures.

Literature shows that one way to structure organizational challenges in a technology environment and in a way to receive requirements for their operational resolution is the usage of capabilities [12]. The organizational capabilities of a company are crucial to its competitiveness and growth [11]. They enable the formulation and implementation of strategies that build on the organization's strengths and resources, and the successful deployment of competitive strategies that enable it to survive and grow in value over the long term [11]. Our goal of the paper is to position this idea of a capability-based approach and derive organizational capabilities for a business-IT integration based on a case study approach, leading to our research question: *What organizational capabilities should digital enterprises design to establish business-IT integration?*

As a result, we come up with organizational capabilities in the fields of *structure*, *technology*, *people*, and *task* following Leavitt's Diamond model [13]. These capabilities can help managers in an enterprise driven by technology to define what they need to do to develop people as cornerstones and build up collaborative tasks and shared-responsibility structures. This fosters business-IT integration in their digital enterprise.

Based on the background of digital enterprises, business-IT integration, and organizational capabilities in Chapter II, and our case study research method in Chapter III, our findings provide an overview of organizational capabilities

for business-IT integration in Chapter IV. We conclude with a discussion and implications for theory and practice.

II. Theoretical Background

A. Digital enterprises

A digital enterprise describes an organization that recognizes digital transformation as a fundamental element of its strategy, culture, and operations to succeed in the digital age [14]. It employs digital technologies to achieve a sustainable, technology-based competitive advantage [15]. However, becoming a digital enterprise involves not just adopting technology but fundamentally changing how the organization operates [7]. Consequently, it is also characterized by a quick adaptability to changing market conditions and customer needs, new ways of collaboration among employees and with partners as well as management practices that emphasize self-organization and proactive leadership [14]. Now, that digital transformation and the rapid development of innovative technologies are forcing companies to incorporate digitalization into their value-creation process, the transformation to a digital enterprise is imperative to remain competitive [16].

In this context, digital maturity refers to the level of readiness for digital transformation. Several digital maturity models are established for enterprises to assess and benchmark their digital readiness [15]. They provide a structured framework for evaluating the organization's current state based on specific criteria, identifying areas for improvement, and defining a roadmap for advancing digital abilities [7]. Besides technologies, infrastructure, and operations, strategy, organizational structure, and people in the company are key components when transforming into a digital enterprise [16]. However, for a more profound comprehension and operationalization, the fusion of business and IT is crucial for digital enterprises: the development of a digital business strategy necessitates a merger of business and IT strategies [17]. An efficient use of digital technologies and the implementation of IT innovations require the integration of business and IT [18].

B. Business-IT Integration

The interplay between business and IT has been extensively studied for several decades [18], [19]. An established model to explain this interplay is the Strategic Alignment Model (SAM) by Henderson and Venkatraman [20], serving also as a basis for future research in the field of business-IT alignment (BITA) [17]. It describes alignment as a multivariate relationship based on the fit between strategy and operative domains, as well as the functional integration between business and IT domains [20]. Alignment, however, is not a final state but rather described as a dynamic and evolutionary process [21]. Therefore, organizations need to consider criteria such as governance, partnership, scope and architecture, skills, value measurement as well as communication to improve BITA [21]. Enterprises strive for consensus between business and IT, as successful alignment has been proven to lead to better performance [19].

The imperative for organizations to turn into a digital enterprise is leading academics to rethink the basic idea of aligning business and IT as separate departments towards a fusion [17] or integration [18]. At the very least, as shown by alignment literature and regardless of the structure, with or without a separate IT function, organizations require the merging of business and IT strategy and convergence at the operational level [17], leading to the integration of business (as business models, products, capabilities, and processes) and IT (as technology). In the context of a digital enterprise, this integration implies considering different perspectives such as "technologies, employees, management and social elements" [18] according to the socio-technical understanding.

C. Organizational Capability Framework

In order to achieve the integration of business and IT in digital enterprises, it is essential to develop the necessary organizational capabilities [12]. Following [22], these organizational capabilities are the ability to manage the organizational structure, the technologies, and the human capabilities. This encompasses, for instance, the information technologies employed in the business units and the skills of the people working in these units in line with the strategic goals. Taking these organizational aspects into account is crucial for the integration of business and IT [22]. Moreover, organizational capabilities are defined as the ability of an organization to perform coordinated tasks with its resources to achieve strategic goals, manage activities more effectively, and keep pace with digital transformation [23], [24]. The summary of these required organizational capabilities is referred to as a capability framework [25]. Capability frameworks are conceptual maps for systematically capturing, organizing, and developing the required skills [26]. In more specific terms, capability frameworks delineate the competencies, knowledge, tools, processes, and behaviors, thereby elucidating the fundamental elements of value creation [27]. The objective of them is to achieve a higher level of digital maturity [12], [28].

Reference [22] proposed one of the earliest organizational capabilities frameworks regarding the broader topic of digital transformation. The most crucial capabilities for a digital change of enterprises were identified as abilities of coordination and integration through efficient collaboration and information sharing across different departments such as IT and business units [22]. In addition, the ability to scale, the ability of managers to engage in continuous education, and the efficient management of new technologies are important capabilities [22]. Furthermore, [23] developed themes of organizational capabilities that arise in the context of digital transformation. In terms of the capabilities required for business-IT integration, three important capabilities are mentioned: innovative thinking, organizational design, and digital transformation leadership [23].

Further, uncoupled research presents several factors that influence the digital maturity of an organization regarding the integration of business and IT: Reference [29] elaborate patterns that describe digitally mature organizations including the investment in new technologies as well as the education

of employees. Reference [30] studies strategic factors that influence digital maturity and highlight the shared vision of top management concerning digitalization and transformation as important factors. Reference [31] outlines that especially the characteristics and competencies of digital leadership influence digital maturity. Reference [32] describes the importance of governance in IT as essential. Key practices in this study include integrated IT decision leadership at the executive and board decision levels, and the establishment of digital leaders who act for both business and IT. In addition, reference [33] suggests that architectural thinking, including collaborative management of enterprise architecture and value-based service, leads to improved maturity. Reference [34] identifies also digital leadership, collaboration culture, innovation culture, and agile processes as organizational capabilities for digital maturity. In particular, the prioritization of resources aligned with operational needs and strategic goals, along with the implementation of flexible and responsive decision-making processes, can facilitate the achievement of agile processes [35], [11]. Another relevant factor to achieve collaboration between business and IT counterparts is their communication based on a common language [36]. Despite the existence of these valuable studies, there is a lack of capability frameworks that explicitly focus on the organizational capabilities required to influence an organization's digital maturity through the integration of business and IT, and that are comprehensively derived from practice.

III. METHODOLOGY

Organizational capabilities are a practical construct established in organizations and influenced by the organizational context [22], [23]. Therefore, we answer our research question by applying a case study approach. It ensures the practical perspective, the in-depth analysis as well as the exploration of contextual factors that are required for the analysis in the context of the integration of business and IT in organizations [21]. Furthermore, the case study approach is recommended to research a contemporary phenomenon [37] such as the digital enterprise and has been applied in previous IS research on capabilities [27]. By collecting data from various sources during the case study, we enrich our insights and the validity of our findings [38].

A. Case Study Design

We follow case study research guidelines to design our case study and to select our case [37], [39]. We chose a single-case design with a common case [37], representative for most global companies: Our case was a major engineering enterprise with a size of about 6000 employees and the existence of all standard business areas including several divisions based on different products. We could accompany the case for one year and observe their path to become leader in innovation in their field, pursuing smart, advanced and cyber secure solutions and embracing new technology trends such as artificial intelligence, big data analysis and IOT to achieve it. In order to study the business-IT integration in depth and to enhance the insights, we focused on multiple units of analysis as

proposed by [37] in a single case embedded design. The organization's operating model indicated a distinction by divisions and departments leading to twelve units of analysis. Some of them had sub-departments which we included in the data collection, but then grouped in the analysis based on the higher hierarchical level.

B. Data Collection

Different sources of evidence, mainly documents, interviews, and focus groups served the data collection [37]: We acquired various strategy documents and operating models as a basis for the analysis. Based on the strategic vision of the IT department to enable the company's strategy through a strong business focus and the provision of optimal digital solutions, we conducted a workshop with managers from the IT department. In this focus group workshop, the target was to analyze the current strategic vision regarding business-IT integration and to discuss the readiness to become a business partner providing real business value. Following the identified units of analysis derived from the organizational structure, we also conducted 38 interviews with responsible managers of different divisions, departments, and sub-departments. We discussed how IT can support or enable their business capabilities to achieve their strategic goals and how the integration of IT into their business should look like. Furthermore, we collected insights in documents from the enterprise architecture (EA) such as EA principles, business capabilities, applications, and IT processes, and interviewed the responsible enterprise architect to gain insights into the interrelations of business needs and IT within the organization. The following list presents a detailed overview of the various data sources:

- Overall organizational strategy and operating model
- 12 strategies for each unit of analysis
- IT department strategy, its operating model, and IT processes
- 38 interviews with business managers of divisions and departments following the organizational structure
- Workshop with IT managers (CIO, IT Service Management, IT Infrastructure and Applications, IT Business Partner Management)
- Enterprise architecture principles and enterprise architecture assets including business capabilities as well as processes
- Interview with the enterprise architect

C. Data Analysis and Synthesis

We analyzed the documents acquired in the case study as a first step of data analysis. Three researchers participated in this process. We conducted qualitative coding [40] based on our research question and extracted tasks, success factors, and goals emphasized in strategy documents and the operating models. We further analyzed the notes taken during interviews and the IT workshop. Thereby, we took into account the collaboration prevailing in the organization and the pursued new ways of collaboration that are characteristic for a digital enterprise [14]. We derived tasks and requirements to

achieve new ways of collaboration and support the digital enterprise through business-IT integration. We then examined IT processes as well as artifacts of enterprise architecture management (EAM) to understand current IT solution delivery and the interrelations of business and IT. Based on the qualitative analysis, we derived organizational capabilities required for business-IT integration.

We then synthesized the derived organizational capabilities based on an existing framework. As shown in earlier studies [36], [41], this alignment ensures not only the link to an existing framework but also a more comprehensive approach [42]. Therefore, we chose Leavitt's Diamond model [13] which is a change management framework that serves the analysis of causal relationships within an organization and the development of adaptation strategies. It has been applied in earlier studies to analyze the various changes through digital transformation and required adaptions of organizations [43], [44]. Thus, it also fits as an underlying framework for our research as we aim to study digital enterprises impacted by digital transformation and their required capabilities to integrate business and IT in this changing context.

Leavitt's Diamond model considers four key dimensions in organizations - people, structure, task, and technology - that influence each other [13]. The theory is that a change in one of these dimensions will inevitably lead to a change in all the others. The balance of all dimensions is crucial for change to work and is the basis for an organization's ability to respond to change and achieve its goals. [45] Accordingly, the disruption through innovative technologies in digital enterprises requires immediate change and adaption in the other three dimensions. Based on this assumption, [44] adjusted Leavitt's Diamond model with technology in the center having a strong impact on the other dimensions but also highlighted the strong interrelation of all dimensions. This leads to a new conceptual model, in which technology is the key driver for organizational transformation. We followed those assumptions of technology as key driver and applied selective coding [40] to assign the identified organizational capabilities to the three dimensions [13]: *people*, *structure,* and *task. People* are all the individuals within the organization, including their skills, knowledge, attitudes, and interactions. *Structure* describes the organizational design and hierarchy that defines how tasks are divided and coordinated within the organization. *Tasks* include all specific activities and responsibilities performed by individuals or groups to achieve organizational objectives [13].

IV. FINDINGS

This section presents the findings of the case study. Fig. 1 displays the organizational capabilities clustered by the Leavitt's diamond dimensions *people*, *structure,* and *task*. As outlined in the methodology section, *technology* is the key driver and, therefore, placed in the center.
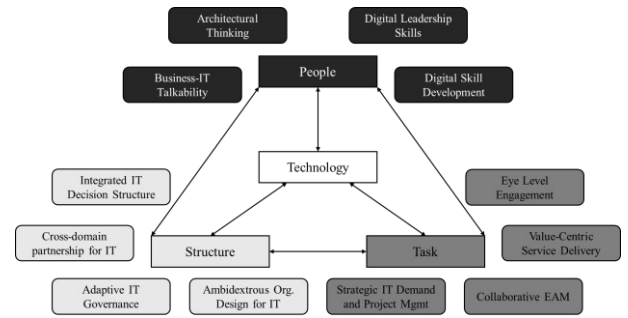

Fig. 1. Organizational Capabilities clustered by Leavitt's Diamond Dimensions

Furthermore, the organizational capabilities are described based on the analysis of the collected data in Table 1. They are clustered by the Leavitt's Diamond Dimensions and the description outlines what an organization must do and what can be achieved by designing each capability. Those descriptions of the organizational capabilities summarize the qualitative codes of our data analysis.

TABLE 1. ORGANIZATIONAL CAPABILITIES AND DESCRIPTIONS CLUSTERED BY LEAVITT'S DIAMOND DIMENSIONS

	Organizational Capability	The organization should be able to…
People	Business-IT Talkability	…empower individuals across departments to communicate in one language about business and IT, facilitating effective collaboration and understanding to drive value through IT in digital enterprises.
	Architectural Thinking	…foster individuals with the mindset and skills to align technology with business components, link technological interrelations for strategic value creation in digital enterprises, and understand the benefits and goals of structuring and managing an EA.
	Digital Leadership Skills	… empower individuals to embrace change, leverage technology, and collaborate innovatively to drive digital transformation and achieve strategic objectives in the organization.
	Digital Skill Development	… empower individuals with the technical and business acumen necessary to bridge the gap between IT abilities and organizational objectives, driving collaboration and innovation.
Task	Strategic IT Demand and Project Management	… prioritize and align resources with operational needs and strategic objectives, to optimize resource allocation and thereby facilitate seamless integration between business and IT.
	Collaborative Enterprise Architecture Management	… facilitate coordinated efforts among stakeholders to develop and maintain a comprehensive architectural framework that aligns business strategies with IT abilities and ensures a jointly developed target landscape for the future of the digital enterprise.
	Value Centric Service Delivery	… prioritize customer-centricity and strengthen the service focus by and in delivering IT solutions with a culture of responsiveness, efficiency, and value creation. This may also include empowering citizen development enabling various stakeholders for (self-)service delivery.
	Eye level Engagement	… facilitate peer-to-peer communication on eye level and engage in one-to-one dialogues between stakeholders. This should consolidate issues, reflect IT needs and emphasize the value of IT in meeting business objectives to foster collaborative

Structure		communities, overcome hierarchies, drive innovation, and ensure continuous alignment between business goals and IT initiatives.
	Integrated IT Decision Structure	…align IT decision-making with broader organizational goals and strategies, ensuring IT representation at the board level and fostering collaboration between IT leaders and business executives to drive strategic alignment and maximize the effectiveness of digital initiatives within the enterprise.
	Cross-domain Partnership for IT	…establish visionary leaders who serve as advocates for both business and IT, integrating user and strategic demands across the organization to ensure organizational-wide alignment and future readiness.
	Adaptive IT Governance	… implement flexible and responsive decision-making structures and IT task responsibility allocation that adjust to changing internal and external dynamics, ensuring effective management and alignment of resources with strategic objectives.
	Ambidextrous Organizational Design for IT	…maintain and balance both stable, exploitative and dynamic, explorative organizational structures and processes for IT in response to changing market conditions, technological advancements, and customer needs, ensuring agility and resilience in the face of uncertainty. This may also include introducing communities for knowledge exchange, agile work structures, or structured dialogue formats.

The analysis revealed four capabilities for each of the dimensions of *people*, *structure,* and *task* that are crucial to establish business-IT integration. The *people* dimension emphasizes the importance of communication between business and IT in a ***unified language, architectural thinking*** in a collaborative culture, ***digital leadership***, and the continuous development of ***digital skills***. The *task* dimension encompasses the capability of ***strategic IT demand and project management*** to efficiently prioritize and allocate resources for IT. The ***collaborative management of the enterprise architecture*** enables the integration of business strategies and IT abilities in the IT landscape and its evolution. The ***delivery of value-based IT services*** focuses on customers and users by establishing a culture of collaboration on IT solutions and empowering individuals. Moreover, the ability to foster ***engagement at an equal level*** serves to facilitate open communication and collaborative communities. In the *structure* dimension, we identified the capability for ***integrated IT decision-making*** to elevate IT issues to board level. Furthermore, ***cross-domain partnerships*** aim for visionary digital leaders to advocate digital topics. An ***adaptive IT governance*** enables the implementation of flexible and responsive decision-making structures and deals with the allocation of IT task responsibilities between business and IT roles. The ability to establish an ***ambidextrous organizational design*** enables dynamic response to changes ensuring agility and resilience. These organizational capabilities are crucial for effective collaboration, embracing technological change, integrating IT with business goals, and driving digital transformation.

V. DISCUSSION

The findings of the case study answer the research question: *What organizational capabilities should digital enterprises design to establish business-IT integration?* In the following, we discuss our findings on this question regarding Leavitt's Diamond Dimensions in terms of practical implications and existing research.

A. Technology as Key Driver in Digital Enterprises

Digital disruption leads to an imbalance of the Leavitt's Diamond [13] and requires organizations to design organizational capabilities in the other three dimensions in order to achieve business-IT integration and become a digital enterprise. We have identified these organizational capabilities, with the technology dimension considered as an influencing factor that needs to be balanced and supported by the people, structure, and task dimensions. The identified capabilities from each dimension result in an overall construct as a framework that interacts to influence the maturity of business-IT integration. The maturity of the capabilities required in the three dimensions depends on the intensity and type of technology used as well as the strategic goals and size of the organization. For instance, it can be assumed that smaller digital enterprises whose value creation is based on the use of IT require a more intensive development of the capabilities in the dimensions than large enterprises in other sectors. In accordance with [44], our framework demonstrates that technology is a key driver of enterprise changes. However, this does not negate the influence of the development of capabilities in other areas on the selection and management of technology.

B. People as a Cornerstone for Business-IT Integration

The people in an organization are an important cornerstone for the success of change in the company [11]. A digital enterprise, therefore, needs digital leaders who drive the digital transformation and lead the way [31]. The case study shows the need for ***digital leadership*** in various interviews with business executives. Those who embraced change and leveraged technology could drive innovation and worshiped a close relationship to IT colleagues to shape change together. However, in one interview, the IT college emphasized that *the collaboration succeeded not only because the business head of customer service led the way as a digital leader, but also because the communication between business and IT worked and a common language was found between business and IT*. This created a common understanding of how the technologies can be used in the best possible way. This ***business-IT talkability*** and the use of a common language is also reflected in earlier studies on the alignment and successful communication [36] and communication patterns in project teams [46]. ***Digital skills*** in both business and IT are important for the digital enterprise. In the case study, a strategic pillar of the IT department was to enable growth by actively managing the architecture. This requires an organizational capability of ***architectural thinking*** where people understand the links between technology and business goals and get the big picture

of the enterprise architecture. However, the lack of architectural thinking within the organization, especially among the business employees, became apparent by interviewing the enterprise architect. He highlighted, as mentioned by prior research [33] that e*specially EAM communication is required to create awareness for the skills needed to collaboratively design the companies' architecture.*

C. Tasks based on Collaboration for Business-IT Integration

The task to perform **collaborative EAM** is an important organizational capability for the digital enterprise [33]. Studies show that the potential of EAM can only be exploited if it is driven by shared responsibility [33]. The aim of the case study was to bring stakeholders together through EAM and jointly develop the future landscape regarding scarce resources and the most value-adding IT support. Value centricity was also highlighted in the case as main pillar of the companies' strategy. This also influenced the collaboration between business and IT regarding the **delivery of services**. To implement digitalization projects, the corporate culture is crucial for success [34], [47]. Therefore, the stakeholders especially from IT department were encouraged to put the customer at the center and work with them to drive value creation forward. However, for business-IT integration joint teams should possess the ability to deliver IT solutions with a clear service focus. And also, business stakeholders could be empowered to contribute to IT service delivery as citizen developers [48].

From the focus on digitalization projects to become a leader in innovation arose the necessity for further organizational capabilities promoting business-IT integration. Therefore, those tasks were optimized during the one-year support. First, the ability to transparently define a demand and project portfolio process required to have a long-term focus on IT projects. Such a **strategic IT demand and project management** ensures that operational needs and strategic objectives are aligned and prioritized [18]. In the case, this involved teams consisting of business and IT working at eye-level together to decide on demands and digitalization projects and allocate resources at an early stage. Second, the ability to communicate openly and work together was essential to become a digital enterprise. A regular discussion between business and IT as a **collaborative engagement** supports business-IT integration [36] and, therefore, marks an organizational capability.

D. Structures support shared-responsibility for Business-IT Integration

Organizational structures are required to perform those tasks and drive the development of becoming a digital enterprise [23]. Digital enterprises need structures and processes that can be quickly adapted to environmental influences [35] - i.e. the organizational capability for **ambidextrous organizational design with regard to IT**. Following the operating model in the case study, the company initiated various restructurings to reflect this flexibility, particularly regarding

the innovative product divisions. To thereby implement and strengthen the integration of business and IT, a structured dialogue between diverse stakeholders was established and communities for knowledge sharing were considered. The flexibility in structures and processes must also be ensured in decision-making [35]. Managers in the case study discussed, regarding IT developed in business departments, that **adaptive IT governance** *would reflect a modern way to address a flexible allocation of responsibilities*. This type of responsive decision-making and allocation of responsibilities supports the interaction between different stakeholders and the integration of business and IT [18].

Besides responsive decision-making processes, a common notion for a digital enterprise is that **IT decision structures** must be integrated into the company structures [11]. The structures should reflect IT decision-making at board level, which is why it is recommended to incorporate a chief information officer or chief digital officer as an advocate for IT and digital initiatives within the board. In the case, it became apparent that hierarchical structures did not allow this direct representation at board level. Therefore, we identified that to become a digital enterprise further restructuring of the operating model would be recommended. However, not only alignment on the executive level but also the operational level is required for integration [18]. Therefore, **digital leaders** who serve as advocates for both business and IT should be established throughout the organization and drive transformation. Such a **cross-domain partnership for IT** may integrate user and strategic demands across the organization and foster business-IT integration [18].

E. Balancing the dimensions of the digital enterprise

The Leavitt's Diamond model states that there is an interaction between the four dimensions [13]. Not only does technology as a key driver influence the other dimensions, but they also influence each other [13]. Those interrelations between the organizational capabilities, clustered in different dimensions of the Leavitt's Diamond, became apparent during the case study: Some tasks could only be carried out with corresponding structures in place and the right skills available among the employees. For **engagement on eye level**, they established a structured dialogue format and trained responsible IT managers with **business talk** skills to jointly emphasize and shape the added value of IT for the business. To perform **collaborative EAM**, the company still lacked employees who incorporate **architectural thinking** and corresponding responsibilities that are clearly defined by an **adaptive IT governance**.

The clustering of the identified organizational capabilities into the dimensions of the Leavitt's diamond represents a structuring for our capability framework and stresses the interplay of the capabilities, however, it does not imply any delimitation of content. Following prior research, digital leadership marks a crucial capability of a digital enterprise [34]. However, to establish business-IT integration within a digital enterprise, we identified that **digital leadership** has two dimensions to consider: it necessitates leadership skills in business and IT to drive innovation, but it also requires structures

that represent this leadership and enable transformation and strategic alignment.

VI. CONCLUSION

Digital transformation urges companies to transform into digital enterprises to achieve maximal value from technology and stay competitive. The integration of business and IT is essential for a digital enterprise to effectively and efficiently use digital technologies and implement innovations. However, there is no framework guiding organizations on what capabilities are required to achieve business-IT integration. Therefore, this paper identifies these organizational capabilities that digital enterprises need to design to establish business-IT integration. To reach this goal, we use a single case study of a representative company that we have followed for a year as it develops into an innovation leader in its field. We identified twelve organizational capabilities required to establish business-IT integration. Those capabilities relate to the dimensions of the Leavitt's diamond of *people*, *task*, and *structure* whereas *technology* is the key driver for change. To become a digital enterprise and thereby achieve business-IT integration, organizations need to design those capabilities, manage their interrelationships, and balance the dimensions of the Leavitt's Diamond.

This paper contributes to research by enhancing research on organizational capabilities linked to the field of collaboration between business and IT. By applying the Leavitt's Diamond, it also advances research on organizational change management and the interdependencies of the dimensions when it comes to business-IT integration. For practitioners, the organizational capabilities offer guidance on what their company must design to achieve business-IT integration and thereby lay the foundation to become a digital enterprise.

Nevertheless, the study has limitations that provide avenues for future research: first, the design of organizational capabilities is a first step for business-IT integration that still lacks operationalization. To address this limitation, researchers could study with focus groups or in further case studies how the identified capabilities may be achieved and operationalized. Thereby, the prevailing corporate culture of an enterprise which was noted in several capabilities should be considered as an important factor for the operationalization. Furthermore, they could analyze which measures or key performance indicators are required to assess these capabilities and design them in new organizational settings to determine long-term effects on business-IT integration. Second, the required degree of these capabilities is contingent upon the intensity of the technological influence. Future research could consider the type of enterprise and the required use of technologies in line with the capability framework.

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