

## Research Report

# How Digitization Disempowers CIOs in Strategy Building

EXTANT STRATEGY CONCEPTS ARE CHALLENGED DUE TO THE ONGOING DIGITIZATION, WHICH FUNDAMENTALLY CHANGES CONDITIONS FOR ALL MARKET PARTICIPANTS. THIS RESEARCH COMPARES THE CONCEPT OF IT ALIGNMENT WITH THE RECENTLY INTRODUCED “DIGITAL BUSINESS STRATEGY” (DBS), WHICH DESCRIBES A CROSS-FUNCTIONAL AND AGILE FUSION OF BUSINESS AND IT STRATEGY. THE RESULTS REVEAL A TOTAL ABSENCE OF A DIRECT INFLUENCE OF IT LEADERS (CIOS) ON DBS, WHEREAS A HIGH IMPACT ON IT ALIGNMENT IS STILL GIVEN. BUSINESS LEADERS IN TURN IMPACT MORE ON DBS.

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### Introduction

Digital business environments are characterized by higher interconnectedness and expanding interdependencies, questioning static approaches to compete in these markets. Uncertainty and dynamism in digitized markets demand for an increased agility of business strategies. Existing strategy concepts have to be revised due to the encompassing role of IT evolving from a mere business supporter towards an integral part of whole businesses.

The last 25 years have been determined by attempts to overcome the gap between IT as kind of “intruder” into a historically grown business environment, which gave rise to the emergence of what is known as IT alignment (Coltman et al., 2015). IT alignment is characterized by a parallel

existence of a business strategy and a separate IT strategy. Latest attempts underline the socially complex processes to achieve IT alignment through a shared understanding between business and IT executives about the role of IT in an organization.

In order to keep up with the aforementioned challenges of digitization, strategic concepts which prepare for an era after the digital transformation are requested, when business models completely rely on IT. A rethinking of traditional structures, control elements, and strategic concepts for IT underlines the challenge for organizations to develop a digital mindset, consolidated and formulated in digital business strategies (DBS), which suppose a fusion of IT and business strategy within one single program (Teece et al., 2016).

A DBS formulates a cross-functional business strategy, which integrates „digital“ purposes by definition in order to leverage IT-related resources to create differential value (Bharadwaj et al., 2013).

Still, the two concepts mainly differ in terms of being structured by either the coordination of two separate strategies for business and IT (IT alignment) or one fused overall strategy (DBS). As the concept of DBS in contrast to extant strategy attempts is not clarified yet, the task of this research is to give first insights for a comparison with the established conception of IT alignment. Since organizational leaders are in charge of formulating strategy, this research focuses in particular on how top managers influence both concepts, strategic IT alignment and DBS separately.

### Method

During December 2016 and January 2017, a quantitative survey was conducted among 944 participants of an online panel of senior IT decision makers in the U.S., resulting in N=255 completed questionnaires. In particular, we focused on knowledge-intensive organizations, as classified by the OECD, which are characterized by higher

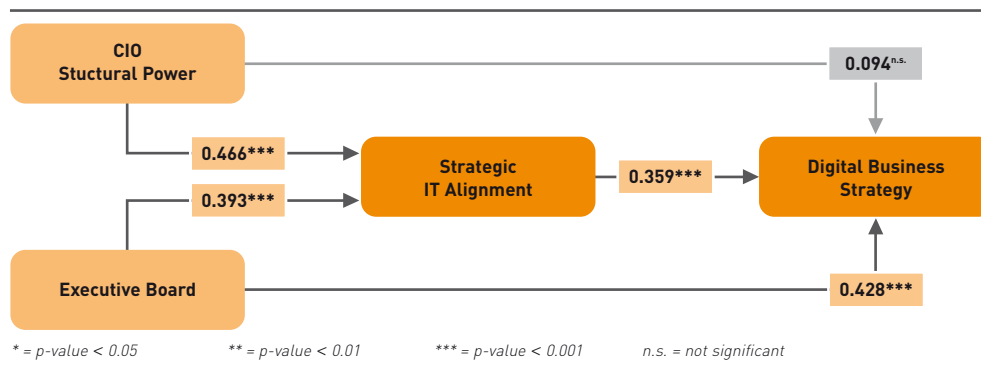
investments in IT and therefore most likely to already manage the challenges of the digitization. Assuring for the IT leader’s decisional power, we considered companies with a firm size of 50 or more employees as well as maintaining IT departments with more than two employees. 35% of the respondents in our sample derive from the finance industry and the IT sector.

To our knowledge, our research (Wunderlich, 2018) is the first to gain a measurable conceptualization for the recently introduced concept of DBS. Due to the exploratory approach for quantifying DBS, we build on prior theoretical conceptualization (Bharadwaj et al., 2013). These theoretical considerations serve as input for executing an exploratory factor analysis based on the gained survey data. This statistical procedure reveals a four factor structure as quantitatively deployable representation of DBS (Table 1).

We apply the four items for DBS within a nomological network to achieve first content-related results in comparison to IT alignment. To explore the coherence with related organizational structures, this analysis tests all mentioned constructs

<b>Digital Architecture</b>	How effective is your company in appropriating value through the control of the firm’s digital architecture?
<b>Digital Business Model</b>	How effective is your company in leveraging value from multisided business models?
<b>Business Dynamism</b>	How effective is your company in speeding up learning for improving strategic and operational decision making?
<b>Information Management</b>	How well does your company take advantage of data, information, and knowledge abundance?

Table 1: Measuring Digital Business Strategy: Surrogate Four-Item Conceptualization



**Figure 1: Influence of CIOs and Executive Board on IT Alignment and Digital Business Strategy**

within one structural equation model (SEM). This statistical operation estimates interrelations in multiple linear regressions simultaneously for a whole research model. All gained path coefficients were found highly significant or clearly not verifiable (Figure 1).

### Empirical Findings

The two regarded strategic concepts, IT alignment and DBS, are influenced by different organizational leaders according to their affiliation to the IT side or business side. Confirmed by the applied statistical procedures, only the business side impacts a DBS in organizations: The highest influence in our model was found for the top management team affecting DBS. No direct impact of CIOs on DBS could be proven. Although being designated as “digital”, DBS are predominantly determined by the business side.

Coincidentally, the path for a CIO to influence DBS is of indirect manner by affecting the IT strategy within the IT alignment process only. The results for IT alignment are in line with the defined struc-

ture of the concept: Both leader groups (CIOs and business managers) influence the formation of IT alignment on comparable level. Our research shows a slightly higher determination of IT alignment by the IT side than from the business side, stating the CIO’s structural power as leading to higher strategic decision-making authority within the IT alignment process.

The findings for the influence of IT alignment on DBS may be traced back to achieved social alignment and shared understanding about IT between business and IT leaders. IT alignment serves as suitable predecessor of building a DBS in the regarded organizations, even more since the tracked IT knowledge of the business side serves as a profound resource of business leaders in formulating the digital facets of a DBS in particular.

### Conclusion

This research demonstrates how organizational decision making changes under the progressively ongoing digitization. The influence of the business side as well as from the IT side on two IT-related

strategic concepts was assessed on managerial level in knowledge-intensive industries. The findings reveal a differentiated view on which organizational leaders influence which strategy concept. Due to its conceptualization as coordinating the business and IT strategies, IT alignment is determined by both the CIO as well as the executive board to a comparable extent. For DBS, we find a complete different picture: As main finding of our study, we especially emphasize that CIOs as highest IT leaders in an organization do not share any direct influence on DBS.

Our research presents the two concepts IT alignment and DBS as highly correlated. After a decade to overcome the gap between business and IT via IT alignment, the well-balanced influence by both the IT and the business side on IT alignment highlights this concept as approved. This research confirms IT alignment as preceding DBS; especially the measured strategic IT domain knowledge of the business managers derives from achieved social IT alignment between business and IT leaders.

The changed importance of IT demands strategic concepts that facilitate increased agility for organizations. This study finds a significant influence of business managers on IT related strategy building in knowledge-intensive industries, in particular for fused business strategies encompassing digital facets. Our analysis demonstrates an already executed responsibility and accountability of the business side for coping with these challenges of the digitization, since the concept of DBS incorporates dynamic capabilities for firms to answer the challenges of increasing market

interconnectivity and interdependencies.

Business managers appear capable of assessing strategic aspects of digitization. On the one hand, this indicates good conditions for a profoundly implemented digital mindset shouldered by both the IT and the business side in the regarded organizations. On the other hand, IT competence of business managers shifts the strategic IT decision making authority from the IT side to the business side, as our research reveals.

### References

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