The Role of Dynamic Capabilities in Overcoming Socio-Cognitive Inertia During Digital Transformation – A Configurational Perspective

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Abstract. Digital technologies are radically changing the way traditional companies interact in established markets. Although these technologies provide numerous benefits, many digital transformation projects fail because of companies' inability to adapt. Socio-cognitive inertia is an important factor inhibiting successful organizational transformation. Extant research suggests that, under specific conditions, dynamic capabilities are effective means of reducing socio-cognitive inertia. We combine a case survey and a fuzzy-set Qualitative Comparative Analysis approach to identify patterns of interactions between dynamic capabilities of a firm and its transformation project design that led to the reduction of socio-cognitive inertia. We show that sensing and, in particular, reconfiguration capabilities positively contribute to reducing socio-cognitive inertia when combined with a centralized governance approach. However, seizing capabilities neither have a positive nor a negative influence. Furthermore, we show that socio-cognitive inertia can also be reduced by ensuring high participation among employees, even in combination with de-centralized governance approaches.

Keywords: Digital Transformation, Dynamic Capabilities, Socio-Cognitive Inertia, Governing Agency

1 Introduction

Trends, such as digital transformation (DT) and globalization, have shaped our economic era with rapid changes and uncertainties as primary characteristics [1]. Adaption to these new circumstances is critical for the survival of established companies [2]. The low success rate (<30%) of organizational transformations [3] shows that is still uncertain how traditional companies can leverage opportunities coming from DT. An important challenge faced by organizations during transformation is overcoming legacy processes, routines, and patterns [4]. Resistance to realignment causes inertia at various levels. Not only do legacy business processes have to be realigned, employees must also embrace the changes [4]. Socio-cognitive inertia specifically stems from extant organizational norms and values affecting employee actions [4]. Research has often brought this into context with the failure of

15th International Conference on Wirtschaftsinformatik,
March 08-11, 2020, Potsdam, Germany

https://doi.org/10.30844/wi_2020_m4-ertl

transformation projects in established companies [5] and as a major factor hindering the success of information technology (IT) projects [6]. Overcoming socio-cognitive inertia and motivating employees to actually use new information systems (IS) is a decisive success factor of successful organizational transformation [6]. Dynamic capabilities are rooted in organizational routines and the actions of managers and employees [7]. Therefore, these variables are suitable for explaining successful transformation in the context of socio-cognitive inertia [7-9]. Furthermore, the way in which DT is managed has a strong impact on the reduction of inertia. These decisions include active employee involvement with centralized or decentralized decision-making [4, 10-12].

In this paper, we explore requisite dynamic capabilities and other contextual factors (e.g., participation and project governance) that allow established organizations to overcome socio-cognitive inertia during their DT. For this purpose, we adopt a configurational approach to identify different pathways to success and further explore the role of project governance. We draw on a large knowledge base by conducting a case survey of DT studies using fuzzy-set Qualitative Comparative Analysis (fsQCA) [13, 14]. To apply a configurational perspective allowing for different combinations of capabilities depending on context, we employ the methods developed by [15]. We show that sensing and, in particular, reconfiguration capabilities positively contribute to reducing socio-cognitive inertia when combined with a centralized governance approach. Interestingly, the seizing capabilities neither have a positive nor a negative influence. Furthermore, we show that socio-cognitive inertia can also be reduced by ensuring high participation among employees, even in combination with de-centralized governance approaches.

The rest of the paper is structured as follows. In section 2, we review our conceptual background on DT, dynamic capabilities, socio-cognitive inertia, governance types, and the interaction of these concepts. Section 3 describes our methodological approach, including how we collected, coded, and analyzed our data. In Section 4, we present a descriptive account of our results. We reveal and explain patterns that can be observed across configurations in Section 5. Then, we discuss the results in Section 6, integrating them with extant theoretical knowledge to derive recommendations for practitioners. Section 7 concludes our paper.

2 Conceptual Background

2.1 Digital Transformation

DT has attracted considerable attention in both theory and practice. Extant literature provides many different definitions of DT [16]. In this paper, we draw on the definition posed by Vial [16], who described DT as a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies [16]. For this paper, we consider the DT of single organizations, and we focus on projects that trigger the described significant changes through combinations of technologies. Significant changes may refer to the creation of new value propositions that rely

https://doi.org/10.30844/wi_2020_m4-ertl

increasingly on the provision of services [16]. Although DT is not only "old wine in new bottles" [17], several learnings from earlier IT-based organizational transformation still apply. Participation, for example, is a factor that is continuously found to positively influence change processes [10] and IS projects [18]. Participation allows firms to address resistance and inertia at an early stage. The execution of any transformation process needs to be designed in some fashion. Besson and Rowe [4] referred to a so-called governing agency, which can be either centralized or decentralized [4].

2.2 Dynamic Capabilities

Dynamic capabilities describe how a firm's competencies can be transformed to fit new environmental circumstances [7]. They are described as higher-order organizational capabilities that support companies in adapting their organizational structures, processes, and company cultures [19-21]. They are rooted in the routines of an organization and the actions of managers and employees [7]. In contrast to ordinary capabilities, dynamic capabilities represent an organization's ability to transform [22] and to have a positive influence on performance [23]. Dynamic capabilities are seen as enablers of DT [8]. They can be classified into three dimensions: sensing, seizing, and reconfiguring. Sensing capabilities help organizations excel at finding new and fitting markets for their existing products, correctly identifying their customer's needs, and recognizing opportunities for innovation [21]. Seizing capabilities allow organizations to build up new structure, policies, and incentives that enable organizational value generation or service and product innovation [21]. Reconfiguration capabilities are concerned with aligning and realigning organizational assets to meet new requirements in new circumstances [21].

2.3 Socio-Cognitive Inertia

Inertia describes the first level of analysis of organizational transformation in that it characterizes the degree of stickiness of the organization being transformed and defines the effort required to propel IS-enabled organizational transformation [4]. It is also a barrier of DT, especially in organizations where existing resources act as resistors to change [16]. Extant literature has identified five dimensions of inertia: negative psychology, socio-cognitive, socio-technical, economic, and political [4]. In this paper, we focus on socio-cognitive inertia. At an organizational level, socio-cognitive inertia is caused by routines that are embedded in an organization. Extant research has shown that this type of inertia is likely stronger when the routines have been in place for a long period of time [24]. Individuals feel comfortable with familiar situations, and, because employees learn from the past, they tend to think of solutions that have proven useful in the past rather than new ideas [24]. Socio-cognitive inertia assumes that people act based on their existing values as they have done in the past.

https://doi.org/10.30844/wi_2020_m4-ertl

2.4 Research Model

Recently, dynamic capabilities have been identified as a suitable concept to explain how inertia can be reduced [9]. Although there are different conceptualizations of dynamic capabilities, the three dimensions of sensing, seizing, and reconfiguring have proven useful in many contexts and are employed in the present study [25]. Their importance as dynamic capabilities explaining DT stems from the fact that DT is characterized by high uncertainty and fast changes [1]. Therefore, having capabilities that support change is crucial, such as sensing new business opportunities or reconfiguring an organization.

Extant research on inertia in the context of DT has focused on socio-technical inertia thus far [4]. In this paper, we focus on explaining how dynamic capabilities can be used to reduce socio-cognitive inertia. We assert that the relationship between the mentioned concepts is dependent upon other factors and that there may not be a "one-size-fits-all" solution [26]. Thus, we adopt a configurational model for explaining this complex relationship. We assert that, to provide specific explanations, we must include other factors that have been proven useful for explaining DT, especially those regarding the governing agency [4]. Governance of a DT project relates to structures, decision rights, and accountability to ensure the appropriate use of digital technologies [12]. Furthermore, governance can either be centralized or decentralized [27]. A centralized agency refers to organizations led by a single manager or leader. However, a decentralized agency delegates governance to several people or organizations [4]. Although a centralized governance approach allows for more IT control [27], decentralized governance allows for more local control, which can increase the flexibility of adapting ISs to specific needs of customers and departments [28]. Furthermore, we include the degree of participation of employees in our research model, because it is an important factor for driving change and reducing inertia [10]. Participation reduces inertia by enabling a more positive attitude toward change processes [10] and better prepares employees for an organizational transformation [29]. Because of the fact that extant research does not agree on an ideal governance type or an optimal degree of participation of employees, our argument that there may be several roads to success is supported [11, 27]. In summary, we investigate the dynamic capabilities that are known to be useful to reduce socio-cognitive inertia in DT projects, considering the effects of centralized or decentralized governing agencies and the degree of employee participation.

3 Research Approach

The objective of our study is to identify how dynamic capabilities can be used in DT projects to overcome socio-cognitive inertia. The in-depth perspectives offered by case studies are appropriate to answer our research question. However, we target a large sample of case studies, which is difficult to conduct because of resource constraints. Therefore, we followed a case-survey approach, making use of the vast availability of case studies in ISs and business research [13]. Because we assume that specific combinations of dynamic capabilities might be more effective for certain

https://doi.org/10.30844/wi_2020_m4-ertl

kinds of DT projects, we further adopted a configurational perspective. Configuration theory posits that organizational phenomena can best be understood by identifying distinct and internally consistent sets of firms and their relationships to the environment and to performance outcomes [30]. In particular, this accounts for the concept of equifinality, which implies that a system can take different paths from initial conditions to reach a specific state [31]. To apply configurational thinking to our study, we draw on fsQSA to analyze our findings from the case survey [14]. Furthermore, we designed and applied a coding scheme based on fuzzy values for our research design based on both case survey and fsQCA. In the following, we explain our approach for collecting the case studies, coding them with fuzzy values, and applying fsQCA to the coded cases.

Data Collection. Following the approaches realized by Rivard and Lapointe [32] and Henfridsson and Bygstad [33], we collected a large sample of DT cases from scholarly sources. To identify these, we first performed a search on a diverse set of journals from the fields of IS (the scholarly Basket of Eight), entrepreneurship (Entrepreneurship: Theory and Practice, Journal of Business Venturing, Research Policy, Strategic Entrepreneurship Journal), and strategic management and organization research (Academy of Management Journal, Academy of Management Review, Strategic Management Journal, Journal of Management). Furthermore, we included the European and the International Conference on IS (ECIS and ICIS). We searched for articles using the term "case study" in their abstract and performed a full-text search using the search string, "(resist* OR inertia) AND (transform* OR chang*)." After an initial screening, we included cases from relevant textbooks and other journals. We then refined our initial sample based on inclusion and exclusion criteria and coded the remaining cases using the dimensions of our research model. From our initial sample, we included cases where the case represented a DT project according to our understanding presented earlier, where it reported evidence of socio-cognitive inertia and where the case narrative provided a rich description of events. We then excluded cases having no evidence of inertia or whose narrative was not sufficiently detailed. We selected a total of 39 cases from journals, conference proceedings, and a book. The cases covered different sectors, including healthcare, manufacturing, and finance. A complete list of the cases is available upon request from the authors.

Coding. We designed a coding scheme focusing on three main elements described in our conceptual background: dynamic capabilities, a transformation's governing agency, and the reduction of socio-cognitive inertia. Regarding dynamic capabilities, we further differentiated between sensing, seizing, and reconfiguring. Regarding the governing agency, we investigated their degrees of centralization and participation. Regarding socio-cognitive inertia, we determined whether the cases provided evidence that socio-cognitive inertia could be overcome at the end of the project. For each dimension, we derived a "theoretical ideal" representing the best imaginable case in the context of the study that was logically and socially possible [34]. Following Basurto and Speer [34], Iannacci and Cornford [35], we coded our cases against each "theoretical ideal". We created individual summary statements for each

case and employed a fuzzy 5-value scheme that is recommended when data might be "too weak to support fine-grained distinctions" [35].

Table 1. Fuzzy 5-value coding scheme

Fuzzy-set value/Dimension	**0 (fully out)**	**0.25 (more out than in)**	**0.51 (borderline)**	**0.75 (more in than out)**	**1 (fully in)**
Sensing/Seizing/Reconfiguring (SSR)	The company exhibits no SSR capabilities	The company exhibits under-developed SSR capabilities	The company exhibits moderately-developed SSR capabilities	The company exhibits well-developed SSR capabilities	The company exhibits very well-developed SSR capabilities
Centralization	The DT project was governed using a decentralized approach	The DT project was governed using a rather decentralized approach	The DT project was governed using a mix of a centralized and decentralized approach	The DT project was governed using a rather centralized approach	The DT project was governed using a centralized approach
Participation	The DT project did not follow a participative approach	The DT project followed a rather non-participative approach	The DT project followed a mix of a participative and non-participative approach	The DT project followed a rather participative approach	The DT project followed a highly participative approach
Reduction of socio-cognitive inertia	Socio-cognitive inertia could not be reduced at all	Socio-cognitive inertia could only be reduced to a small degree	Socio-cognitive inertia could only be reduced partially	Socio-cognitive inertia could mostly be overcome	Socio-cognitive inertia could completely be overcome

Owing to space constraints, we provide only selected examples for our coding procedure. For example, we coded the following article excerpt as evidence of having overcome socio-cognitive inertia. It stated, "after some initial apprehension about their new responsibilities and unfamiliar tasks, users accepted and embraced these changes and soon welcomed them" [36]. Regarding dynamic capabilities, we coded the following excerpt as exhibiting high sensing capabilities: "[…] Philips launched Jovia Health […]. Over time, Philips believed that similar solutions would help to shift industry focus from treatment to prevention […]" [37]. On the contrary, we interpreted the following excerpt as an evidence of low reconfiguration capabilities: "[…] they were still struggling with the old projects and their consequences […]" [38]. Regarding governing agency, we coded the following statement as an example of decentralized agency: "the Bakery implemented dedicated project teams that succeeded in implementing the e-commerce initiative" [39]. We interpreted the following statement as an evidence of a low degree of participation: "[…] the focus groups' responses were ignored in the pilot system design […]" [40].

https://doi.org/10.30844/wi_2020_m4-ertl

Based on the summary statements and the fuzzy-value scheme, two authors independently coded all 39 cases from the sample. When disagreements arose during coding, the coders reread the case and discussed their results until consensus was reached. Table 1 provides an overview of our coding scheme comprising the criteria used to assign fuzzy values to cases and their dimensions.

Analysis. After having coded all cases, we proceeded to conduct both a necessary conditions analysis and a sufficiency analysis. Necessary condition analysis reveals single conditions that can be observed in every case exhibiting the outcome. To be considered necessary, a condition needed to exceed a threshold of 0.9 [41]. Consistency measures the extent to which cases with the same conditions share the same outcome [14]. However, necessary conditions could also be present if the outcome could not be observed which is why we also analyzed sufficient configurations. This type of analysis reveals combinations of conditions that guarantee a specific outcome [14]. First, we built a truth table consisting of all potential configurations of conditions. We then further reduced the table rows by setting thresholds for case frequency, raw consistency and proportional reduction in inconsistency (PRI). Aligning to previous QCA research, we applied a frequency threshold of 1, because we used a sample of medium size. This reflects only configurations represented by a minimum of one case study in the truth table. We applied a consistency threshold of 0.9 and a PRI consistency threshold of 0.8. These exceeded the conservative thresholds of 0.75 for both raw and PRI consistency [42]. After reducing the truth table, we applied the Quine–McCluskey algorithm to simplify the remaining table [14]. This led to our final set of configurations.

4 Results

Necessary condition analysis. The results of our necessary condition analysis revealed that none of the conditions pass the required threshold of 0.9. Thus, we concluded that there were no conditions always present in all cases exhibiting the outcome.

Sufficiency analysis. Our sufficiency analysis yielded an intermediate solution having four distinct configurations that explained the reduction of socio-cognitive inertia (see Table 2). Our solution shows an excellent consistency level of 0.97, which is well above the level of 0.8 that is considered acceptable in QCA research [14]. Additionally, the solution coverage value of 0.77 demonstrates that the solutions were able to explain the majority of outcomes. Coverage assesses the empirical relevance of a solution and each single configuration and refers to the percentage of cases exhibiting a certain outcome that can be explained with a solution or a single configuration [14]. Furthermore, raw and PRI consistency values of all single configurations were higher than 0.96 which demonstrates that they all led reliably to the outcome in question [14]. The first configuration (S1) represents DT projects in which a decentralized governing agency was combined with a highly participative approach. Dynamic capabilities were not relevant in this configuration. The second configuration (S2) depicts projects in which sensing capabilities were present in

https://doi.org/10.30844/wi_2020_m4-ertl

combination with a participative approach. In this configuration, it did not matter whether the governing agency was centralized or decentralized. The third configuration (S3) shows participative approaches combined with reconfiguration capabilities. The last configuration (S4) depicts projects in which both sensing and reconfiguring were present, combined with a centralized governance approach.

Table 2. Configurations for reduction of socio-cognitive inertia

Conditions	**Reduction of socio-cognitive inertia**			
	S1	S2	S3	S4
Dynamic capabilities				
Sensing		●		●
Seizing				
Reconfiguring			⬤	⬤
Governing agency				
Centralization	⊗			●
Participation	⬤	⬤	⬤	
Raw consistency	1.00	0.98	1.00	0.98
Raw coverage	0.37	0.52	0.62	0.52
Unique coverage	0.01	0.03	0.12	0.09
Solution consistency	0.97			
Solution coverage	0.77			
Black circle = presence of a condition; Crossed-out circle = absence of a condition; Empty row = may be either present or absent; Large circle = core condition; Small circle: peripheral condition; Raw consistency threshold: 0.9; PRI threshold: 0.8; Frequency threshold: 1.				

5 Discussion

5.1 Cross-Configurational Patterns

Building upon our descriptive analysis of the identified configurations, we now discuss distinct cross-configurational patterns by comparing them to extant literature and integrating empirical observations from the cases forming parts of our analysis.

Decentralized governance is successful when combined with high participation. Typically, centralized governance designs are deemed to be more successful [12]. Therefore, having a decentralized governing agency as part of a successful configuration is surprising. A potential explanation could be derived from

https://doi.org/10.30844/wi_2020_m4-ertl

the fact that a project having a decentralized agency includes different types of people, because a team of business and IT professionals is needed to overcome inertia [43]. Furthermore, social relationships between a change agent, supports, and adversaries are important for DT [44]. A widespread de-centralized agency can possibly reach more people within an organization [45]. A decentralized governance approach allows decision makers to better reach the employees using the system. Therefore, it can be determined how these interact and whether they accept new processes. Furthermore, it helped those organizations gain insights from the IT and business departments. Although this served to surpass most hurdles, when necessary, the administration and higher management intervened and supported the transformation process.

Centralized governance is successful when combined with sensing or reconfiguration capabilities. The success of overcoming socio-cognitive inertia using a centralized governing agency is congruent with the findings of Weill and Ross [12], who found decentralized IT governance types having many decision-makers to be less effective than others. A centralized governing agency allows managers making the actual decisions to be more knowledgeable about planning in all areas. Having business managers with detailed knowledge about the plans of IT departments and its managers, having detailed knowledge about the plans, allows for better and more aligned decisions [46]. A possible explanation of why participation was not relevant in configuration S4 is that the centralized agency was led by a leader who guided and pushed the transformation in a top-down manner. This was the case at Royal Philips, where the chief information officer led the transformation and pulled lower management areas on board [37, 47]. Although this type of central governance is sometimes helpful, it is not always sufficient, because the current environment and IT decisions are very complex, and participants are not always able to understand what things will look like 5 years from now [37]. Therefore, reconfiguring is very helpful. This was achieved by some of the case organizations, because they adapted their project management methods using open and iterative approaches [36, 37, 47]. Although reconfiguration capabilities can help find the right foci for digitalization or lessons learned from failures, sensing capabilities are also helpful. An example is the innovation project of Audi-City, where a manager saw an opportunity to leverage a semi-virtual sales room and was so confident about it that he pursued it without informing managers [48]. At Audi, this sensing capability complemented the reconfiguring capability that allowed organizations to adapt the new circumstances without major hurdles. However, the centralized governance helped ensure the necessary authority to push through changes [48].

Participation leads to success. Participation is often mentioned as a success factor in DT [16]. It is also important for the general success of change and for reducing employee resistance [49]. In their literature review, Ali, Zhou, Miller and Ieromonachou [50] stated that researchers proposed a participative approach to overcome resistance during IT implementation. This agrees with the demonstrated high importance of participation found in our results. One explanation for this high success of participation was proposed by Bartunek, Rousseau, Rudolph and DePalma [51], who found that participation allowed employees to interact and make sense of

changes together. We found that this also applied to other cases (Beiersdorf [36] and Lego [36, 52-55]). As explained earlier, participation supports a more positive attitude toward change [10]. We also observed this in the case of Hummels [56], who worked on adapting their culture with a major transformation. The argument of Oreg, Vakola and Armenakis [29] stated that participation allowed for a higher readiness toward change. This applied to our cases. An example is that of Sentara, where developing prototypes and employees empowerment to use systems at an early stage with a smaller scope was beneficial in preparing them to accept transformation [57]. Furthermore, for a large-scale transformation, knowledge from different business functions is often necessary. A high degree of participation secures this. This helped with the success of the introduction of SAP at Lego when they included diverse new business functions (e.g., sales, logistics, and IT) [52-55]. In summary, different types of dynamic capabilities with participation seems to lead to success in overcoming socio-cognitive inertia. This fits with the concept of equifinality, in which different path and the configuration of factors can lead to similar outcomes [58]. A possible explanation for this is that, for different types of environmental uncertainty, complex strategies (e.g., planning vs. trial-and-error learning) are efficient [59]. A high degree of sensing supports strategic planning, whereas reconfiguring supports trial-and-error learning. Therefore, differences in what capability has proven successful for a given company could arise because of differences in their project management approaches.

Reconfiguration capabilities as core conditions. In our results, reconfiguration capabilities appeared as core conditions, whereas sensing capabilities appeared only as peripheral conditions. Seizing capabilities did not appear at all. A reason why reconfiguration capabilities were important could be related to the fact that most of our cases exhibited a centralized governance. Compared to de-centralized governance approaches, centralized approaches were not suitable for customizing a system for specific needs [28]. Therefore, reconfiguration capabilities were needed later to adjust the system to the specific needs of employees. For example, at SFTR Telecommunications Group [40], a new IT system did not fit at all needs of the employees. This changed as soon as IT-related decisions were adapted to the actual needs because of top-management intervention. Reconfiguring and adaptations also made employees feel positive about their new IT system, because they felt taken seriously [60-62] and able to influence the transformation outcome. Therefore, they felt more in control and not as insecure. Additionally, they gained more ownership of the whole process. This type of ownership helps with reducing inertia [29]. Generally, a key difference between cases exhibiting sensing or reconfiguring capabilities is that, with reconfiguring, employees showed new and innovative ways of using technologies. Therefore, they increased their usage and adoption of IT and new processes even after implementation [63, 64]. Sensing capabilities are useful at the beginning to establish an initial project trajectory. However, they are also useful later on when new circumstances arise and reconfiguring is needed. In configurations where only sensing or only reconfiguring is present, employee participation helped to overcome missing dynamic capabilities [65].

5.2 Contribution to Theory and Practice

Our results extend research on dynamic capabilities and their interactions with socio-cognitive inertia. We answered calls for research on dynamic capabilities with a configurational approach [23] and [66] and an explanation of outcomes not directly related to performance [66]. Our results show that, generally, dynamic capabilities positively contributed to an organizations' ability to overcome socio-cognitive inertia during DT. When reconfiguration capabilities are important, sensing capabilities had a positive impact. In our analysis, seizing capabilities did not form part of any configuration and, therefore, had neither a positive nor a negative influence. Further research could validate our findings through the use of other quantitative methods (e.g., surveys of larger samples). We also provided further evidence for the importance of participation already seen as an important factors in IS change processes [18] and change in general [10]. We furthermore contribute to research on governing DT projects. Although extant literature describes decentralized governance types as less effective [12], our results only partially support these findings. Both centralized and decentralized governing agency types form parts of configurations that overcame socio-cognitive inertia.

In summary, we showed that different types of dynamic capability, participation, and the governance structure in different configurations were present when overcoming socio-cognitive inertia. From this, we derived several recommendations for practitioners. We suggest that companies build up their dynamic capabilities, especially those of sensing and reconfiguring. Furthermore, we advise firms to include the employees during the change process. Whereas the optimum degree of participation relies on the circumstances, it would also help to compensate any missing capabilities.

5.3 Limitations

Our research is not free from limitations. There may be other concepts having explanatory power that we did not incorporate into our research model (e.g., cognition [67], social network theory [68], personal traits [63], leadership theory (i.e., transformational vs. transactional [45], or the moment of change [63]). Future research should extend our model or change specific factors to test their explanatory power. Furthermore, our chosen research approach also leads to some limitations. Owing to coding our categories from existing case studies, our results were affected by the bias of the authors and their interpretation of the cases, which were mostly considered successful. However, when considering inertia, the cases differed from each other, because different levels of reduction of inertia were reported. For future studies, we propose researchers use different forms of inertia and select cases having both positive and negative outcomes.

https://doi.org/10.30844/wi_2020_m4-ertl

6 Conclusion

In this paper, we investigated the dynamic capabilities that can be used to overcome socio-cognitive inertia in the context of DT. To this end, we conducted a case survey combined with an fsQCA approach. We showed that sensing and reconfiguration capabilities had positive impacts on the reduction of socio-cognitive inertia combined with a centralized governance approach. However, seizing capabilities did not have a positive or a negative influence. We also showed that socio-cognitive inertia could also be reduced by ensuring high participation among employees, even when combined with de-centralized governance approaches. Our results contribute to both theory and practice by opening future research avenues and providing actionable insights for DT managers.

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