

DEVELOPING A BPM-SUPPORTIVE ORGANIZATIONAL CULTURE: ON THE IMPORTANCE OF CONTEXTUAL FACTORS

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Abstract

In recent years, the importance of a holistic understanding of business process management (BPM) has been increasingly recognized in Information Systems (IS) research. In this sense, research extended its focus beyond methodological and technological factors of BPM to strategic and cultural factors, for example. Particularly, organizational culture is increasingly recognized as a success factor for reaching efficiency and effectiveness of business processes. To date, existing research specified and operationalized cultural values which shape a supportive environment for realizing BPM objectives. However, there is a lack of studies which engage with the development of a BPM-facilitating organizational culture. In this paper, we investigate how contextual characteristics of organizations determine the specific activities that help developing a BPM(-supportive) culture in an organization. We do so by examining the cases of two companies from distinct contextual backgrounds. While both cases show a moderate realization of BPM culture, their strategies on how to develop their organizational culture towards being more supportive of BPM differ strongly. Based on the specific contextual backgrounds of the organizations, we reason that contextual factors need to be considered when deriving strategies for the development of organizational cultures. Against this background, we conclude on the relevance of contextual factors for cultural development in BPM.

Keywords: business process management, organizational culture, BPM culture, cultural development.

1 Introduction

Contemporary business process management (BPM) refers to a holistic management approach that considers various relevant factors to achieve efficient and effective business processes (Rosemann and vom Brocke, 2010; Smith and Fingar, 2006). Particularly, organizational culture is an acknowledged success factor in BPM initiatives (Hammer, 2010). It refers to the shared values of a group (Schein, 2004). Researchers find that “[h]aving good systems and the right structure in place” (Zairi, 1997, p. 65) without addressing cultural aspects is not sufficient for BPM success. Industry analysts also recognize the relevance of culture in BPM: “BPM as a discipline requires an organization to change its culture and work practices” (Dixon and Jones, 2011, p.12).

Previous studies suggest that the culture of an organization should facilitate BPM (Maull, Tranfield and Maull 2003; Al-Mashari and Zairi 1999). While researchers already examined what a BPM-supportive organizational culture could look like (Schmiedel et al., 2013), it has hardly been examined how organizations can develop a culture that facilitates efficient and effective business processes (Tumbas and Schmiedel, 2013). Particularly, it has not yet been analyzed how far the activities organizations could take to develop a BPM-supportive culture may differ between organizations. Since multiple context factors affect the specific characteristics of BPM in an organization, e.g. industry sector or process maturity (Ittner and Larcker, 1997), our study considers context factors when exploring organizational strategies to develop a supportive culture for BPM. Our research is guided by the following research question: *What are differences between companies from distinct contextual backgrounds in developing a culture supportive of BPM?*

To address this research question, we examine two specific cases from the automotive and the IT industry. We chose these cases because they have distinct contextual backgrounds and thus are suitable to investigate differences in the development of a BPM-supportive organizational culture. We study these cases through a contextual analysis, an assessment how far the organizational cultures already support BPM, and in-depth interviews to analyze how the cultures of the organizations can be developed to better facilitate the BPM initiatives. In the following, we introduce our understanding of BPM and culture. We then describe our methodological approach, illustrate our research results, and discuss the results against the background of the specific contextual factors of the two case organizations. Finally, we conclude with a short summary and outlook on future research.

2 Research Background

2.1 Holistic understanding of BPM

Our research follows a holistic view of BPM that is represented in contemporary maturity models (Fisher, 2004; Hammer, 2007). Particularly, the maturity model of Rosemann and de Bruin (2009) specifies this comprehensive understanding in its core factors relevant to BPM success. The six factors of the model comprise the following (Rosemann and vom Brocke, 2010): (1) *Strategic alignment* refers to the required congruence of the BPM initiative and the overall strategy of an organization. (2) *Governance* refers to the establishment of accountabilities for process decision making. (3) *Methods* are the tools and techniques that support and enable consistent process actions. (4) *IT* refers to the software and hardware systems that support BPM initiatives. (5) *People* refer to the process-related expertise and knowledge of employees. (6) *Culture* refers to the collective values that support process-centred organizations. We use this model to structure the BPM-specific contextual factors of the case organizations.

2.2 Understanding of culture

In the context of our research, we understand culture as the shared *values* of a group that become visible in *actions* and *structures* (vom Brocke and Sinnl, 2011; Schein, 2004). These manifestations of

culture can be distinguished according to their visibility. Invisible values make up the biggest part of culture. They represent the defining elements of a particular culture (Hofstede and Hofstede, 2005). Actions and structures, however, refer to the visible part of culture. They represent an instantiation of the values that shape a particular culture (Schein, 2004). For example, the value of transparency becomes visible in structures such as shared and freely accessible project documentations, or in actions such as informing employees about latest strategic decisions and involving stakeholders in change projects from the very beginning. These manifestations of culture can be found in any kind of group culture, e.g. nations, organizations, or work groups. In our study, we focus on organizations as cultural groups.

2.3 Organizational culture in BPM

Considering the existing body of knowledge in the field, our research builds on the BPM-Culture-Model of vom Brocke and Sinnl (2011). Figure 1 shows the three main concepts of the model: (1) *BPM culture* refers to a culture supportive of achieving efficient and effective business processes, (2) *cultural context* refers to the existing cultural setting (e.g. consisting of organizational, national, and work group cultures) which a certain BPM initiative faces at the beginning, and (3) *cultural fit* refers to the basic congruence which is required between BPM culture and cultural context for a BPM initiative to be successful.



Figure 1. *BPM-Culture-Model (cf. vom Brocke and Sinnl, 2011)*

Gaining a deeper understanding of the concept of BPM culture is important to study how to achieve a cultural fit. Existing research examined the cultural values which determine BPM culture based on literature reviews and a global Delphi study (Schmiedel et al., 2013). As a result, the so-called CERT values were identified as directly supportive of achieving BPM objectives (Schmiedel et al., 2013). Table 1 illustrates those values which define the acronym CERT and the cultural subdimensions that are represented by each of the values.

CERT values	Sub-dimensions	
Customer orientation	external customer	internal customer
Excellence	innovation	continuous improvement
Responsibility	accountability	commitment
Teamwork	formal structures	informal structures

Table 1. *BPM-supportive CERT values and their sub-dimensions*

To assess how far the CERT values are realized in an organization, a measurement instrument has been developed (Schmiedel et al., 2012). It measures the degree to which the culture of an organization is supportive of BPM. In case of a rather low realization of the CERT values, the BPM initiative of an organization is likely to fail due to a lack of cultural fit (Schmiedel et al., 2012). Thus, measures need to be undertaken to further develop the organizational culture towards a high realization of CERT values, i.e. towards the realization of a cultural fit. This does not mean to replace the given organizational culture but rather to foster the incorporation of the CERT values in the existing culture. In our study, we make use of this assessment instrument as a basis for investigating in-depth how an organization can realize a fit between their cultural context and BPM culture, particularly examining organizations of contrasting industries with diverse contextual backgrounds.

3 Research Methodology

The research paper is part of a larger project that aims at generating first insights on strategies organizations can take to develop a BPM-supportive organizational culture. Hence, we chose a qualitative research design as an appropriate lense for this purpose (Creswell, 2012). Since the investigation is concerned with a contemporary topic which is not heavily addressed in research yet and should be studied in a natural setting (Benbasat et al., 1987), interpretive case study is applied as a research method. The studied units of analysis are two organizations from the automotive and IT industry (which we refer to as AutoLeader and ITLeader), in particular their product development lifecycle (PDL) processes, involving departments from Research & Development (R&D) to Sales. The data of ITLeader builds on a previously published case and extends it for the contextual comparison with AutoLeader (Tumbas and Schmiedel, 2013).

Our research is structured in three phases (Table 2). In phase 1, we conducted a context analysis of the two companies to understand and compare the specific backgrounds of the organizations. Besides interviews, various documents served as important sources for understanding the two companies, e.g., process landscapes, lessons learned from past BPM projects, FAQ related to workflow systems, or process training content. In phase 2, we conducted culture assessments to gain preliminary insights on the supportiveness of the organizational cultures for BPM. For this purpose, we used an existing instrument to measure how far employees perceive the culture supportive of BPM (Schmiedel et al., 2012). The data was interpreted based on an assessment of average item scores.

	AutoLeader	ITLeader
Research Phase 1: Context analysis	8 interviews; document analysis	7 interviews; document analysis
Research Phase 2: Culture assessment	87 participants	27 participants
Research Phase 3: In-depth interviews	8 interviews	7 interviews

Table 2. Data sources used in the research phases

In phase 3, we conducted 15 semi-structured interviews with an average length of around 45 minutes. These interviews were based on the results of phase 2 and addressed reasons for the assessment outcomes along all CERT values (Table 1). The interviewees in both organizations were from key managerial roles in different departments, such as Project Leader R&D, Senior Vice President Audit, Quality Manager. The interviews were audio taped, transcribed and confirmed by the interviewees. After confirmation, the interview transcripts were coded deploying open and axial coding using NVivo software. The research results of these three phases are presented in the following section.

4 Research Results

4.1 Contextual background of the case organizations

AutoLeader is an automotive supplier company that provides high quality products for carmakers. It has 4,000 employees and an annual turnover of around €1 billion. Their BPM initiative started in 2005 and is today mainly driven by the operational level. The switch from function orientation to process orientation was triggered by the requirements of the automotive industry to integrate its supply chains. This is especially important since the industry faces frequent oscillations in business. As a response to customers' demand, AutoLeader aquired ISO certifications to guarantee specific quality standards throughout the supply chain. Even though no clear time frame is set, two phases can be differentiated in the BPM initiative: roll out and implementation (2005 – 2008) and improvement (since 2008). The BPM roadmap consists of larger goals, however vision and strategy are not explicitly defined.

ITLeader is a large-sized enterprise software organization. Its 5500 employees achieved a revenue of around €1 billion in 2011. The BPM program started in 2005, driven by the CIO. The time frame is clearly defined and milestones are set until 2015. The initiative aims at increasing the maturity level of the processes. Therefore, a maturity model was defined starting from the initial phase, and progressing

to identified, optimized and digitized phase. Activities in the BPM initiative are framed by a strategy and vision. Since ITLeader offers BPM software suits, they have an intrinsic motivation to implement and promote their own solutions. Besides, frequent mergers with other companies create a need to standardize the processes and enable easier integration with new partners. Table 3 provides a detailed overview of the contextual backgrounds of the two organizations.

Unit of Analysis	AutoLeader	ITLeader
Organizational Context Factors		
Industry sector	Automotive	IT
Merger	more than 10 years ago	within the last 5 years
BPM Context Factors		
Strategic Alignment	BPM initiative is driven by the operational level and not explicitly aligned with the corporate and IT strategy	BPM initiative is driven by CIO and aligned with the corporate and IT strategy
Governance	BPM team is distributed in all functions; process roles are defined	Central BPM function; clear BPM-governance model including conflict resolution rules between process- and function-related roles
Methods	Petri nets, ARIS, Six Sigma, Kaizen	ARIS, Six Sigma, RACI
IT	Lack of process-supporting systems and data harmonization	Core processes are supported by a workflow-driven application
People	General process-awareness trainings for all employees	Specific trainings depending on employees' role in a process initiative
Culture	<i>see culture assessment in section 4.2</i>	

Table 3. Contextual factors characterizing AutoLeader and ITLeader

4.2 Culture assessment of the case organizations

Applying the measurement instrument for the CERT values (Schmiedel et al., 2012), we examined to what extent employees in the PDL processes of the two case companies perceive the culture of their organization supportive of their BPM approach. Figure 2 illustrates the results of the two organizations in one diagram. It shows that the cultures are perceived supportive of BPM to around 50% on average.

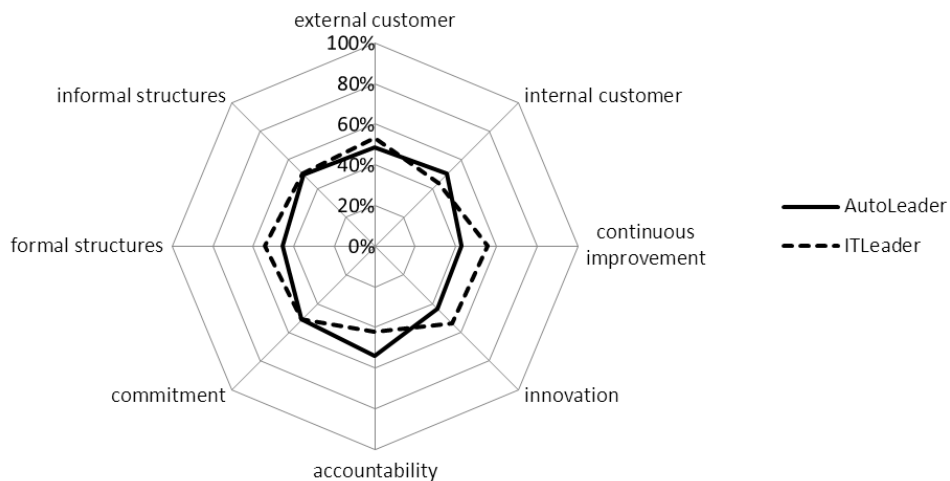


Figure 2. Culture assessment results of AutoLeader and ITLeader

A more detailed analysis reveals that the dimensions *continuous improvement* and *innovation* are perceived to be realized weaker at AutoLeader when compared to other dimensions. At ITLeader, *internal customer orientation* and *accountability* are perceived weaker than the other dimensions. Yet, overall the assessment results are similar in both companies. The results provide the basis for

examining in each company through which strategies the organizational culture can be developed in a way that the presence of these values is perceived at higher levels. Comparing the strategies of both organizations then allows analyzing how far they differ due to their specific contextual backgrounds.

4.3 Culture development strategies of the case organizations

On the basis of the culture assessment, we conducted in-depth interviews to identify activities which can support the two companies in developing a more BPM-supportive culture. In the following, we present selected activities for realizing the eight cultural sub-dimensions of the CERT values.

External Customer Orientation

AutoLeader:

- *Addressing special customer requirements at the start of the product development lifecycle* is perceived important to nurture close relations to customers. This is critical for the negotiation of contract terms with large automotive customers who heavily influence the business flow.
- *Defining standardized customer communication procedures* is considered important to establish close relations to the customer before as well as during the development phase of the prototype. An efficient communication flow has to be established and maintained throughout the projects.

ITLeader:

- *Defining use cases for market launch at the end of the product development lifecycle* is considered essential since it allows using internal knowledge to provide support to the customer based on own experiences with the software solutions. Scenarios are developed to standardize certain activities with customers such as implementation guidelines, or handling customer complaints.
- *Creating one face to the customer via standardized delivery channels* is a particularly important means for raising customer satisfaction. Unifying the usage of various channels provides highly relevant consistency since “[d]elivery is the direct interface for the customer with our software.”

Internal Customer Orientation

AutoLeader:

- *Conducting general process landscape trainings* is considered an important step to raise awareness for employees’ position in the process environment. This lays the ground for an efficient and effective information and material flow to internal customers.
- *Permanent coordination of internal resource capacities* is seen as necessary means to assure timely reaction to the requests of internal customers. Scarce machine capacities, for example, demand a high degree of coordination between involved employees from different departments.

ITLeader:

- *Conducting specific process trainings* is perceived to support the understanding of common goals in the product development lifecycle process. This breaks down barriers between employees who are involved in the same process and raises awareness for internal customer requirements.
- *Permanent involvement of employees* is considered critical to enable repeated feedback of internal customers. It is important to stay in dialogue with the customer and have potential changes confirmed prior to their implementation since this helps avoiding misinterpretations.

Excellence – Continuous Improvement

AutoLeader:

- *Ensuring compliance with industry and process standards driven by the Quality department* is perceived an essential step for process improvement. Compliance as external driver strongly influences the BPM initiative as industry partners demand transparency in process quality.
- *Enabling IT-supported continuous improvement* is considered an important next step in the BPM initiative. A stronger alignment of IT strategy and overall BPM strategy provides opportunities for monitoring process performance and thus eases identifying improvement demands.

ITLeader:

- *Forming a separate BPM unit which fosters regular process reviews* is considered essential to ensure a permanent monitoring of process review cycles. The BPM team describes that “people

start thinking "out of the box" [...] out of their departmental silos, and contact us because they have ideas to make the process better. And this is a cultural change we encounter [...] very much."

- *Monitoring process performance using a workflow driven application* is seen as a crucial activity to realize continuous process improvement. KPIs should be clearly defined and presented on dashboards, but also revised after a process improvement initiative: "So what we are planning is not to do a project and then say goodbye [...], but monitor [...] the outcome of our improvement."

Excellence – Innovation

AutoLeader:

- *Fostering personal relations between process coaches and employees* is viewed as a means to motivate contributions to innovation. Organizing occasional workshops with BPM teams and developing innovation procedures would assure that employees know whom to contact.
- *Coordinating entry points for innovation ideas* is considered necessary when ideas are communicated person to person. It is important that several process roles take responsibility for innovation ideas, e.g. process coaches, process coordinators, and process owners.

ITLeader:

- *Assuring a simple IT-supported procedure for collecting innovative ideas* is seen essential to avoid that employees hesitate to provide innovative solutions because procedures are too formalized and require a lot of detailed information in a very early stage. Currently, ideas are still communicated in an unstructured way which hinders the BPM function to conduct efficient tracking.
- *Following-up on ideas for process innovation* is considered to be critical for keeping employees creative. In ITLeader, the idea generation process was supported by a software, however, the impression of managers was that not enough care is taken of the suggested innovation ideas: "the system itself was not bad, it was just the people who should look at the ideas". To motivate employees for participation, it is seen essential to provide feedback on employees' ideas.

Responsibility – Accountability

AutoLeader:

- *Developing clear job descriptions* which include process-related responsibilities is considered important to ensure that newly hired employees are process-oriented from the beginning. Formal descriptions of job profiles are a valuable reference point when defining process accountabilities.
- *Defining clear governance structures* is seen essential to create meaningful reporting lines for process roles. A central BPM unit that employees with BPM positions can report to would strengthen BPM-specific competences in the organization.

ITLeader:

- *Considering backgrounds of employees in forming corporate project teams* is seen important to assure that employees involved in a project have the right skills to be accountable for their decisions. This internal employee selection is particularly relevant after mergers which require revision of employees' job profiles to define new accountabilities based on BPM experience.
- *Setting up clear governance rules* is considered an important steering mechanism in case of disagreements between the functional heads and process owners to resolve conflicts. Such rules should be supported by established governance structures that are reflected in process models enriched by a RACI (Responsible, Accountable, Consulted and Informed) matrix.

Responsibility – Commitment

AutoLeader:

- *Motivating through the management board as a role model* is considered important to strengthen employee commitment, e.g. the management board should present strategy and vision of the BPM initiative, should act according to the initiative, and should include process achievements in the corporate annual report to motivate employees.
- *Incentivizing employees* to achieve process goals is considered an important means for employee motivation. Team-based incentive systems are seen as a driver of commitment to process targets, both in the production line and in the office sector.

ITLeader:

- *Motivating through good examples* is understood as an essential driver of individual commitment to process objectives. This means that the BPM team strives to “prove with good projects and good lessons learned that it is worth setting process goals”. This way, awareness for process goals is raised and higher responsibility and trust between different stakeholders can be achieved.
- *Rewarding the dedication of employees* to attaining process goals is seen as an important motivator for further commitment. The intrinsic motivation of employees is one of the central drivers of goal achievement and should therefore be recompensed.

Teamwork – Formal Structures

AutoLeader:

- *Structuring collaboration between prototype development teams* particularly through appointing one key project responsible is considered essential to enable a smooth coordination and communication between teams and departments.
- *Establishing cost centers* is seen important to incentivize cross-departmental teamwork since each department is responsible for their account balance. This requires formal interaction between employees of different departments to achieve cross-departmental process objectives.

ITLeader:

- *Conducting agile development between sub-departments in R&D* is understood as an important methodology to foster thinking beyond one particular product line. Since ITLeader offers products which are tightly linked such as software suites, agile development provides the required flexibility but also structure in this process to work across sub-departments.
- *Defining deliverables between departments* is seen as essential for breaking down functional silos. Therefore, service level agreements between different departments in the organization help to structure and achieve the overall common goals of the business processes.

Teamwork – Informal Structures

AutoLeader:

- *Organizing events for breaking down traditional hierarchical thinking* is understood as an important means to foster thinking in terms of process teams. Such common activities for employees enable informal personal contact between colleagues from different departments.
- *Connecting plants at different locations with social media* is seen crucial for establishing simple informal communication channels between developer teams. This is particularly important since these teams exchange information on a frequent basis.

ITLeader:

- *Establishing internal communication channels via a unified collaboration platform* is considered important to foster open communication between departments. It is seen essential for a comfortable cross-functional working atmosphere. Currently, many different (social) platforms are in place representing a barrier to communication across departments.
- *Facilitating face-to-face meetings* is considered essential when introducing new employees to efficient cross-functional teamwork. While employees often only meet virtually, building up informal relationships between functions helps passing on working modes to new colleagues.

5 Discussion

5.1 Role of contextual factors in identifying culture development strategies

The results show that different culture development strategies have been identified in the two case organizations. In this section, we discuss how these strategies can be explained by the specific contextual backgrounds of each organization. We structure our discussion according to the context factors presented in Table 3.

Organizational Context

Industry sector: One of the main contrasts between the two case companies is determined by the characteristics of the industry sector. This becomes obvious when looking at the activities that were identified to realize e.g. external customer orientation: AutoLeader concentrates on the negotiation of contract terms since typically orders are explicitly predefined by large car producing customers, while ITLeader tries to learn from their own experience with their software solutions to define use cases for selling these products. Another example for industry-specific differences refers to the excellence value: Process changes at AutoLeader are particularly driven by compliance with industry and process standards, while ITLeader represents its IT-affinity e.g. in IT-supported idea collection procedures for process enhancements.

Merger: Looking back at the history, it is interesting to consider how occurring mergers influenced culture development strategies. Taking a closer look at the way how to realize accountability for process decisions provides the following example: At AutoLeader, there is no recent merger transformation present that would require integrating internal competences, thus the organization focuses on precise job descriptions for the external market to hire employees for process positions. In case of ITLeader, a recent merger calls for the necessity to integrate accountabilities and form corporate project teams based on previous BPM experience of the employees.

BPM Context

Strategic Alignment: The way in which BPM strategy in an organization is aligned with the corporate and the IT strategy represents another important determiner of culture development strategies. Examining the activities that were defined to realize continuous improvement, we find the following differences: Since AutoLeader does not yet explicitly align its BPM strategy with its IT strategy, it is important for them to start this alignment e.g. by introducing IT-supported monitoring of process performance. ITLeader, however, is already more mature regarding strategic alignment and can therefore focus on reviewing KPIs that are used to monitor process performance.

Governance: Differences in BPM governance contexts further explain differences in culture development strategies, e.g. regarding the realization of formal responsibilities: While process roles are defined at AutoLeader, the distribution of the BPM team in all functions creates difficulties in BPM governance which requires defining clear governance structures and reporting lines for these process roles. Since governance structures at ITLeader are already established “by having this split between responsibility and accountability, [...] we can look at the different activities for one process in a detailed view.” ITLeader now focuses on another important means to improve accountability for process decisions, i.e. the development of governance rules that are applied to resolve conflicts between functional heads and process owners.

Methods: In terms of BPM methods that are used in the two case organizations, the companies do not differ tremendously. For example, both organizations use Six Sigma as a method for process improvement, and both organizations use ARIS as a basis for modelling business processes. However, in order to foster accountability, ITLeader enriches the ARIS model with the *RACI* method in that it defines *Responsible*, *Accountable*, *Consulted* and *Informed* employees. With regard to establishing formal teamwork between departments, another difference in methods can be identified that also relates to the different industries of the two organizations: At ITLeader, R&D also contains the production of the software, thus the company uses agile development as a method to foster teamwork across sub-departments of R&D. At AutoLeader, the prototype development and production are two different departments, thus a more structured collaboration method is required that also needs to consider capacity restrictions of machines.

IT: The different contexts of the two case organizations regarding the support of business processes through IT further shape the identified culture development strategies. Looking at the dimension of informal teamwork between functions, for example, we find the following: At AutoLeader, the preference for personal contact causes that social collaboration systems are mostly used for teamwork

between dislocated business units only. At ITLeader, a broad range of different IT platforms requires establishing one unified collaboration platform to foster informal communication across departments.

People: Regarding the management of BPM skills in the two organizations, we identify further differences that lead to distinct culture development strategies. Suggested activities addressing the internal customer orientation value, for example, exhibit different approaches to introducing the BPM initiative: At AutoLeader, all the employees are targeted for basic process trainings, whereas at ITLeader, special trainings address those employees who are directly involved in process improvement projects. These contrasting approaches to developing process skills may also be influenced by the overall maturity of the BPM approach in each company, which is more advanced in ITLeader to date. At AutoLeader, process coaches are located in each division to provide all employees with a basic understanding of business processes. At ITLeader, the BPM department coordinates trainings for specific process change projects to reduce the risk of people saying “Oh, that is the process and [...] I exactly did what this process tells me, but I am not looking left and right.”

Including contextual factors in the BPM-Culture-Model

In the following, we argue how the results of our study and the discussion of our findings suggest an extension of the previously introduced BPM-Culture-Model of vom Brocke and Sinnl (2011).

- (1) *The context analysis of research phase 1* served to gain a general understanding of the background of each of the two case organizations and also provided the basis for discussing the findings of phase 2 and particularly of phase 3.
- (2) *The culture assessment of research phase 2* revealed similar results for each of the two case organizations. In both companies, the organizational culture was perceived at around 50% supportive for their BPM approach. At first sight, one may assume that similar culture development strategies are required in both cases to achieve higher levels of BPM culture maturity, i.e. a cultural fit between BPM culture and cultural context. However, the findings of phase 3 revealed different results.
- (3) *The interviews of research phase 3* showed that deriving culture development strategies requires considering the specific contexts of organizations. Even though the culture assessment results of the two companies were similar, the derived strategies to institutionalize these values differed tremendously. These differences can be explained on the basis of the specific characteristics that each company owns regarding the discussed contextual factors.

Against the background of these findings, we conclude that contextual factors, particularly BPM context factors and organizational context factors, represent a given frame for achieving a cultural fit in the sense that specific activities are taken in an organization to realize a BPM culture. For this reason, we suggest to extend the BPM-Culture-Model by the following two concepts (Figure 3):

- *Organizational context* refers to general factors shaping the background of an organization, such as industry sector, mergers, and size of the company.
- *BPM context* refers to the specific BPM approach in an organization which is determined by factors such as strategic alignment, governance, methods, IT, and people.

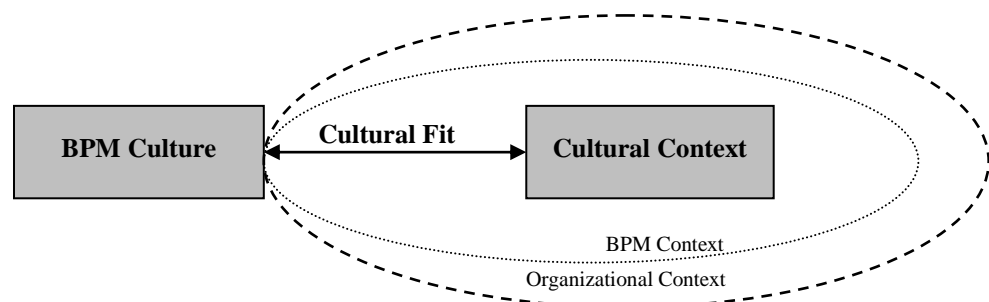


Figure 3. Context-aware BPM-Culture-Model

5.2 Implications for research and practice

Our study includes several implications for the research community. Particularly, it provides a deeper understanding of the importance of contextual factors in determining strategies to institutionalize the CERT values in organizational cultures. The extended version of the BPM-Culture-Model illustrates this relevance of contextual factors in achieving a cultural fit between BPM culture and cultural context (Figure 3). Future research should further examine the context-aware model. This includes, for example, further case studies with organizations of different contextual backgrounds and an analysis of the relations between the context concepts. This will allow for a broader generalization of the overall results. For example, one could then draw general conclusions for a given contextual background which development strategies can serve as a means to realize a BPM-supportive culture. So far, our study served to derive initial strategies on how to develop organizational cultures toward being more supportive of BPM. Differences in such strategies were found to be based on differences in contextual backgrounds of the analyzed organizations.

Our research also includes several implications for practice. Our results are based on an empirical investigation of two large-sized case organizations. Their analysis provides initial insights on culture development strategies which companies could deploy to foster the institutionalization of CERT values in their organization. Examining the case organizations against the background of particular contextual factors provides relevant insights for companies with a comparable background on how they may realize a BPM-supportive organizational culture. Finally, the overall research approach offers a meaningful procedure which organizations can follow to derive culture development strategies. Specifically, the paper introduced an approach consisting of three phases, including: contextual analysis, culture assessment, and a strategy development that considers the contextual analysis.

5.3 Limitations

Our research findings are limited to the cases of two companies. Particularly, our conclusions on the role of contextual factors are tied to the backgrounds of these cases. An abstraction of how far the differences in culture development strategies are due to differences based on specific contextual factors thus remains limited at this point in time and should be further examined in upcoming studies. Future research should also consider that it is likely that further context factors than the ones we considered are relevant in determining culture fit strategies. Also, the identified culture development strategies have to be tested and their interrelation with different contextual factors and cultural values have to be investigated in different organizations. Moreover, the interrelation between context factors should be investigated in future research. Nevertheless, our study provides an initial understanding of how established contextual factors determine the strategies that support an organization in developing a BPM-supportive culture.

The findings are bound to the perception of interview partners from the PDL process of the two case companies. While the number of interviewees was roughly the same in both organizations, the sample sizes for the culture assessment differed since the availability of employees for the study was uneven between the two organizations. Therefore, a bias in the assessment findings may be possible, however, the core findings of our study are not affected since these are based on the interview results. Generally, involving more employees could have yielded different results and allowed for more generalizable findings. Nevertheless, our research results provide first insights on an under-researched topic in the BPM field. Future research endeavours are required to complement these empirical insights.

6 Conclusion

Our study was driven by the research question “*What are differences between companies from distinct contextual backgrounds in developing a culture supportive of BPM?*” We examined two case organizations from the automotive and the IT industry in a research process which comprised three

stages, namely context analysis, culture assessment and in-depth interviews. The purpose of our research was to investigate how far cultural development strategies are determined by the specific characteristics of an organization's context. Our findings provide initial insights on the importance of considering contextual factors when deriving development strategies to realize a BPM-supportive organizational culture. Further research is required to determine the relations between contextual factors and suggested culture development strategies in more detail.

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