

Association for Information Systems AIS Electronic Library (AISeL)

Wirtschaftsinformatik Proceedings 2013

Wirtschaftsinformatik

2013

Developing an Organizational Culture Supportive of Business Process Management

Sanja Tumbas

University of Münster, The Münster School of Business and Economics, Münster, Germany, sanja.tumbas@uni-muenster.de

Theresa Schmiedel

University of Liechtenstein, Institute of Information Systems, Vaduz, Liechtenstein, theresa.schmiedel@uni.li

Follow this and additional works at: <http://aisel.aisnet.org/wi2013>

Recommended Citation

Tumbas, Sanja and Schmiedel, Theresa, "Developing an Organizational Culture Supportive of Business Process Management" (2013). *Wirtschaftsinformatik Proceedings 2013*. 115.
<http://aisel.aisnet.org/wi2013/115>

This material is brought to you by the Wirtschaftsinformatik at AIS Electronic Library (AISeL). It has been accepted for inclusion in Wirtschaftsinformatik Proceedings 2013 by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Developing an Organizational Culture Supportive of Business Process Management

Sanja Tumbas¹ and Theresa Schmiedel²

¹ University of Münster, The Münster School of Business and Economics, Münster, Germany
sanja.tumbas@uni-muenster.de

² University of Liechtenstein, Institute of Information Systems, Vaduz, Liechtenstein
theresa.schmiedel@uni.li

Abstract. In recent years, a holistic understanding of business process management (BPM) has evolved in Information Systems (IS) research. This understanding considers organizational factors such as strategic alignment, governance, people, and culture as important aspects of BPM beyond Information Technology (IT) and methods. Particularly, organizational culture has been increasingly recognized as a critical success factor for the efficiency and effectiveness of business processes. While existing research already examined which cultural values determine a supportive environment for realizing BPM objectives and how these values can be measured, it has not been explored to date how such a supportive organizational culture can be developed. Based on a review of the literature, we therefore investigate the case of a global IT software provider to gain a first understanding of strategies organizations can implement to develop a supportive cultural setting for their BPM approach. We show how these findings extend recent studies in BPM research.

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

1 Introduction

Business process management (BPM) is a field of research which has increasingly gained importance in the Information Systems (IS) discipline. In recent years, a holistic understanding of BPM has evolved, which considers organizational factors such as strategic alignment, governance, people, and culture as important aspects of BPM beyond Information Technology (IT) and methods [1]. Particularly, organizational culture is an acknowledged success factor in BPM initiatives [2-5]. “Having good systems and the right structure in place” [4] without addressing cultural aspects is not sufficient for achieving organizational effectiveness and efficiency. Industry analysts also recognize the relevance of culture: “BPM as a discipline requires an organization to change its culture and work practices” [6].

Culture refers to the shared basic assumptions, values, or beliefs of a group [7]. In recent years, researchers increasingly addressed and systematized the role of culture

in IS research generally and BPM research specifically, differentiating several levels of culture and relations between culture and BPM [8-10]. The academia recognizes that organizational culture should facilitate a business process initiative [3], [11]. Moreover, first results exist on what a supportive organizational culture could look like [12-13]. Nevertheless, it seems to have not been examined yet, how organizations could develop and maintain an organizational culture that supports the efficiency and effectiveness of their business processes. In addition, calls for research regarding this topic can be identified [9], [14]. Therefore, the objective of the study is to provide initial insights to possible measures organizations can take to improve the supportiveness of their culture for BPM. Thus, the paper is guided by the following research question: *How can an organization develop a culture supportive of BPM?*

To address this research question, in section 2 we first conduct a review of the literature to gain a more detailed overview of existing research on the topic. Then, in section 3 we look into the specific case of a global IT software provider. In section 4, we report on the strategy and activities which are derived from interviews with the company to improve the supportiveness of the organizational culture for BPM. The results are discussed in section 5. Finally in section 6, the paper concludes with an overall outlook.

2 Research Background

2.1 Understanding of Culture and Culture Development

In this paper, culture is understood as the shared values of a group that become visible in actions and structures [7], [9]. This means that manifestations of culture can be distinguished according to their visibility. Invisible values represent the defining elements of a particular culture [15]. Actions and structures however, refer to the visible part of culture which is the instantiation of the values that shape a particular culture [7]. These manifestations of culture can be found in any kind of group culture, e.g. nations, organizations, or work groups. In our study, the focus is on organizations. More specifically, we are interested in how change, particularly organizational culture development, can be fostered. Hence, we take a functionalists view, i.e. consider culture as changeable by management according to their objectives. In this sense, culture is a tool of management-driven change in core values which can lead to successful organizational transformation.

2.2 Literature Review on Culture in BPM (-related) Research

After introducing our understanding of the culture concept, an essential step in the research process is the investigation of the literature which provides an overview of the existing body of knowledge [16]. Therefore, a comprehensive literature review is conducted, following a rigorous approach as suggested by vom Brocke et al. [17] to ensure reliability and validity of the results. The review extends recent literature reviews on the topic particularly focusing on measures to develop a BPM-supportive

cultural environment in an organization [9], [18]. We follow the suggestion of previous studies that “a review of culture’s role in BPM-related concepts, like BPR, may provide valuable insights transferable to the BPM concept” [9]. Thus, we set the keywords for identifying relevant literature beyond a narrow BPM focus.

To gain in-depth insights to various research streams, the following search strings were deployed: "Process management" and Cultur*, "Process change" and Cultur*, "Process reengineering" and Cultur*, "Process re-engineering" and Cultur*, BPR and Cultur*, "Process redesign" and Cultur*, "Business Transformation" and Cultur*. The literature search incorporated titles and abstracts of conference and journal papers without restricting the time period. In a first step, central IS and BPM sources were examined, i.e. the Senior Scholars’ Basket of Journals provided by the Association for Information Systems (AIS)¹, the Business Process Management Journal, and the International Conference on Business Process Management. Beyond, the scope of the literature search also included the following journal databases: AIS Electronic Library², Science Direct, and Ebsco. In addition, the following conferences were included: AIS Conferences³ and AIS Affiliated Conferences⁴.

Out of the total 153 articles which fulfilled the basic search criteria, only those articles remained in the scope which fulfilled two key criteria: 1. elaborate on cultural aspects and 2. concerned with an organization as a unit of analysis. This resulted in 23 articles which served as basis for further classification.

A concept-centric approach [19] is used to structure the identified articles (Table 1). First of all, we differentiate between papers which refer to *organizational culture* and those which refer to the *culture of a specific management approach* (e.g. BPM, Business Process Reengineering (BPR), Total Quality Management (TQM)). Second, we distinguish the categories *describe*, *assess* and *develop* to characterize the way in which authors engage with the topic of culture. The majority of identified articles mentions and *describes* organizational culture as an influencing factor for process-related initiatives. There are few articles which apply a certain way of *assessing* culture to determine its typology, while there are much more which mention that the assessment would be desired or necessary. Here only those are included which directly propose a way for assessment. The last category contains articles which make suggestions on how to *develop* a certain culture with respect to process-related initiatives. This category is highlighted in Table 1 since it stays rather unpopulated.

The literature classification provides first evidence for a lack of research on how to develop an organizational culture that supports BPM. For example, Philip and McKeown [20] are in the *develop* category and explain the use of a culture framework originating from social anthropology to identify culture development paths in business transformations. While TQM initiatives are understood as a trigger of cultural change in business transformations, the paper does not reveal what a TQM-supportive organizational culture looks like or how the facilitating culture could be developed.

¹ <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=346>

² <http://aisel.aisnet.org/communities.html>

³ <http://aisel.aisnet.org/conferences/>

⁴ <http://aisel.aisnet.org/affiliated/>

Yet, Yong and Pheng [21] introduce culture-based TQM implementation strategies. They suggest that either the predominant organizational culture should be modified or the TQM approach should be suited to the culture. In accordance with that, the proposed strategies are to maintain or adjust either the culture or the TQM approach depending on the cultural type of the organization. However, these strategies are very high-level and do not propose concrete activities on how to actually realize a TQM-supportive culture.

Table 1. Categorized Literature Review Results

	Organizational Culture	Culture of Specific Management Approach (e.g. BPM, TQM, BPR)
DESCRIBE culture	Guha et al. [22]; Motwani, Kumar, & Antony [23]; Motwani, Mirchandani, Madan, & Gunasekaran [24]; Motwani, Subramanian, & Gopalakrishna [25]; Nah, Lau, & Kuang [26]; vom Brocke & Sinnl [9]; vom Brocke & Sinnl [27]; vom Brocke & Schmiedel [18]; Rosemann & de Bruin [28]; Rosemann et al. [29]; Hammer [30]; Mosadegh Rad [31]; Zucchi & Edwards [32]; Alibabaei et al. [3]; Baird, Hu, & Reeve [33]; Philip & McKeown [20]; Yong & Pheng [21]; Revenaugh [34]; Kappos & Croteau [35]	de Bruin & Rosemann [1]; Mosadegh Rad [31]; vom Brocke & Sinnl [9]; vom Brocke & Sinnl [27]; vom Brocke & Schmiedel [18]; Cao, Clarke, & Lehaney [36]; Yong & Pheng [21]
ASSESS culture	Schmiedel, vom Brocke, & Recker [13]; Philip & McKeown [20]; Yong & Pheng [21]; Revenaugh [34]; Kappos & Croteau [35]	Schmiedel, vom Brocke, & Recker [13]; Kohlbacher & Gruenwald [37]
DEVELOP culture	Philip & McKeown [20]; Yong & Pheng [21]	

The section presented an overview on the prevailing literature on organizational culture and various process management approaches such as BPM, TQM, and BPR. The analysis of the identified literature strengthens the argument that further empirical research is needed to examine how organizations can develop a culture that supports their BPM approach.

2.3 Theoretical Basis of Culture's Role in BPM

Our empirical study builds on research which we identified in the literature review, particularly it ties in with the BPM-Culture-Model of vom Brocke & Sinnl [9]. Figure 1 shows the three main constructs of the model: (1) BPM culture is understood as 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 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.



Fig. 1. BPM-Culture-Model [9]

In recent studies, the concept of BPM culture was examined in more detail. Particularly, the cultural values which determine BPM culture were specified based on literature reviews and a global Delphi study [12], [18]. As a result, the so-called CERT values are identified as directly supportive of achieving BPM objectives [12]. Table 2 illustrates which values define the acronym CERT and which cultural subdimensions are represented by each of the values.

Table 2. CERT Values and their Subdimensions [12-13]

CERT values	Subdimensions	
Customer orientation	external customer	internal customer
Excellence	Innovation	continuous improvement
Responsibility	Accountability	commitment
Teamwork	formal structures	informal structures

To examine how far the CERT values are realized in an organization, a measurement instrument has been recently developed [13]. It measures the degree to which the culture of an organization is supportive of BPM. In case the CERT values are not lived in an organization, cultural resistance can arise. This means that a cultural fit is not achieved and as a consequence two scenarios are possible. Either cultural change facilitates the realization of the CERT values or the culture does not adjust to the requirements of the initiative and the initiative is likely to fail [13]. In our empirical study, we deploy the existing measurement instrument to identify possible shortcomings of the culture in the case organization. Based on this assessment, we then more deeply into the concept of cultural fit by also analyzing how an organization can realize a fit between their cultural context and BPM culture.

3 Empirical Approach

3.1 Case Organization: *ITLeader*

In order to identify strategies for developing an organizational culture supportive of BPM, we look into the specific case of the global IT company *ITLeader* (name changed) which provides software for supporting business processes. The corporation provides a suitable background for identifying how a BPM-facilitating organizational culture can be developed, not only based on their products and services but primarily based on their internal Process Excellence (PE) initiative.

ITLeader is a large-sized enterprise software organization. The headquarter is in Europe, but the 5.500 employees are situated worldwide and serve 10.000 enterprise and public institutions across more than 50 countries. *ITLeader* is one of the 25 largest business software vendors in the world with revenue of around €1 billion in 2011.

The PE initiative in *ITLeader* started in 2010 and is lead by the Audit, Process and Quality (P&Q) team. The defined goals were to identify and maintain a company-wide process landscape; set up and implement the concept of "Process Ownership"; identify and implement standardized target processes; digitize processes using own technology; implement process intelligence; monitor the cultural change and enable continuous improvement. Even though several process improvement projects were conducted and are still planned, the optimization of the product development lifecycle namely *Idea to Product Release* end-to-end process is critical for *ITLeader*'s success. This process is called internally Entire Readiness and is a first priority process in *ITLeader*'s PE initiative. In the following, we introduce the methodological procedure of our empirical analysis at *ITLeader*.

3.2 Methodological Procedure

The purpose of the study is to generate first insights on strategies that organizations can take to develop a BPM supportive organizational culture. Due to the exploratory nature of this study, we chose a qualitative research design as an appropriate lense for this research endeavor [38]. Since the investigation is adressing a contemporary topic which is not heavily discussed in research yet and should be studied in a natural setting [39], interpretive case study is applied as a research method. In our empirical study, the unit of analysis is the *Idea to Product Release* process at *ITLeader* since it represents the central business processes in the PE initiative. In order to examine how *ITLeader* can develop a culture that supports their BPM initiative, the study concentrates on the following two phases:

1. First of all, we analyze the culture development needs of *ITLeader*. For this purpose, we use a previously validated instrument to measure the presence of the BPM-supportive CERT values in the organization [13]. This allows us to gain an initial overview how far the organization is culturally fit for their BPM approach. Specifically, employees involved in the *Idea to Product Release* process were asked to assess their culture with the measurement instrument which we implemented as an online-survey instrument. The data collected from 27 respondents was analyzed in SPSS using average item scores. As the result, the perceived shortcomings of the prevailing culture served as a starting point for identifying strategies on how to further develop the supportiveness of the existing culture for BPM.
2. Second, we conducted five semi-structured interviews with an average length of 45min. The outcome of the assessment from the previous phase served as a basis to discuss with the interviewees how a BPM-supportive culture could be achieved. Based on this, we developed an interview guideline that contained questions addressing all CERT values. For each value dimension, we discussed ways of realizing a culture that supports achieving efficient and effective business processes. The

interviewees were key representatives of the *Idea to Product Release* process such as Project Leader R&D, Senior Vice President Process Quality&Audit, and Quality Manager. The interviews were transcribed and coded with NVivo. The findings from the interviews provide first insights on the activities which can be used to develop a culture that facilitates BPM.

4 Identifying Culture Development Strategies

4.1 Analyzing Culture Development Needs

We use an existing measurement instrument to assess the extent to which employees of *ITLeader* perceive that the CERT values Customer Orientation, Excellence, Responsibility, and Teamwork, respectively the eight cultural subdimensions are lived in the corporation [13]. The findings give first insights on the cultural fitness of the organization for BPM and therefore provide a starting point for examining how a BPM-supportive organizational culture can be realized. Figure 2 gives an overview of the results. While the assessment shows that there is overall still much room to improve the supportiveness of the organizational culture, it becomes immediately obvious that particularly the two cultural dimensions *internal customer orientation* and *accountability* are perceived present in the company below-average. These findings provide a basis for developing strategies how to improve the prevailing culture at *ITLeader*.

Our interview partners confirmed that employees working at the same process, often do not think in terms of *internal customers*. The heads of the initiative received feedback that “it is the first time in these [PE] projects that people from different silos have spoken to each other”. Internal customer orientation demands a shift in thinking, as the interviewee perceives: “The risk if you have processes or formal processes in place is that people say - oh, that is the process and I stick to it, and I exactly did what this process tells me, but I am not looking left and right. And perhaps, you need to look left and right even if it is not in the box that outlines what you should do.”

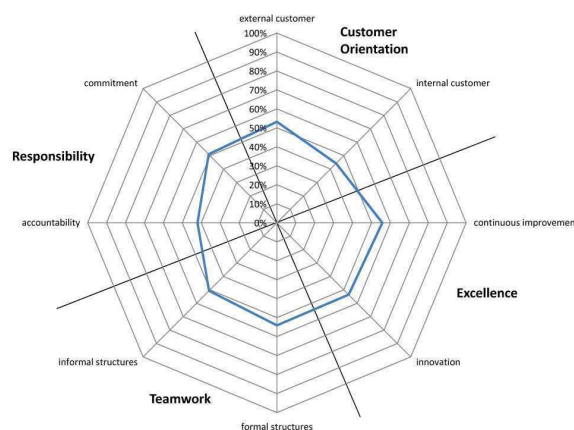


Fig. 2. Cultural Fitness of *ITLeader* for BPM

Regarding *accountability*, which is one of the main goals of the PE initiative, the situation is described as follows: “We could also organize it differently but in our department in our company it’s really that there’s not a single person or department who would be somehow seen as the owner [...] of this process.”; “[W]e also do not have this horizontal really leader role of a process owner. It’s more somebody who does a little bit of the organization”. Moreover, the interviewee regards this deficiency as a part of the current culture “if that is more a culture in the company that you have synchronization, coordination between the department then it’s really difficult to switch to another model with a defined process and the process owner.”

The application of the measurement instrument to analyze the existing organizational culture shows that the instrument is suitable to identify an overall culture development strategy for the organization. Based on the findings which are also confirmed by our interview partners, it can be concluded that activities are required in all eight subdimensions to increase the supportiveness of *ITLeader*’s culture for BPM. Particular attention is required in the two dimensions *internal customer orientation* and *accountability*. In the following, we present culture development activities which we derived on the basis of our empirical study with the organization.

4.2 Deriving Activities to Develop a BPM-supportive Culture

Based on the interviews, we identified several activities which can support *ITLeader* in developing a more BPM-supportive culture. Regarding the realization of such a culture, we present identified activities for all CERT values and their subdimensions in the following. Beyond, we report on some general activities which our interviewees recognized as important drivers for the intended culture change.

Customer Orientation - External Customer

- *Practicing what we preach* is considered essential for the external customer orientation in *ITLeader*. Therefore, the PE team aims at promoting their activities through documented case studies and lessons learned. This knowledge is supposed to provide an important reference point for the employees who then apply the gained knowledge in the contact to the end customer. In this way, there is an intuitive process of learning and sharing own experiences with external customers.
- *One face to the customer* in the delivery is seen as another important side of the relation to the external customer. In this regard, *ITLeader* aims at creating comprehensive offers for the customers and providing the delivery of services in a uniform way. Currently, different product lines have different delivery processes, including separate order and payment possibilities for different products.

Customer Orientation - Internal Customer

- *Trainings* are perceived necessary to form a common understanding of goals between the employees in one business process. Since they don’t have the same view on the process, it is highly relevant to break down the functional silos in the very beginning of the PE initiative and facilitate thinking in terms of internal customers.

- *Involvement* is considered as a critical factor to institutionalize internal customer orientation in the culture of *ITLeader*. This means the voice of the (internal) customer should not only be heard and quality improvements should not only be reflected and implemented on that basis, but it is perceived critical to stay in dialogue with the customer and have potential changes confirmed prior to their implementation. The repeated feedback of internal customers helps avoiding misinterpretations and the realization of unwanted changes. As the Senior Vice President mentions “it means that in case we think about something has to be changed but it is not confirmed by the internal customer, we will not do it. So, this is the reason why I said that everything, the whole initiative is only customer driven.”

Excellence - Continuous Improvement

- *Individual incentive systems* are considered an important means for motivating employees to achieve process goals: “The most important thing that we need to achieve - we have initiated that but it is not fully executed, and this will take us some more years is - putting in process goals, process related goals into the MBO, into the goal achievement of every employee.”
- *Monitoring process performance* is seen as a crucial activity to realize the continuous improvement of business processes. The KPIs should be clearly defined and improvements should be reported in the workflow management application. The fact that the PE team at *ITLeader* receives increasingly more requests is seen as thinking “out of the box” and “departmental silos, and contact us because they have ideas to make the process better. And this is a cultural change we encounter, especially during the last years very much.”

Excellence - Innovation

- *Simple proposal procedures* for process innovation ideas are seen as essential for motivating employees to suggest such innovations. Currently, employees of *ITLeader* need to go through a formal process that requires to know details about the cost centers, project descriptions, organizations effected, financial impact, and similar. As a consequence, ideas are currently communicated in an unstructured way which makes them difficult to handle. A more simple proposal procedure would allow for a structured handling of the ideas. Those suggestions that shall be realized can still be specified later on.
- *Following-up on ideas* for product innovation is considered to be critical for keeping employees creative. At *ITLeader*, the idea generation process was supported by a tool, however, the impression of the employees was not enough care is taken of the suggested innovation ideas. As the Quality Manager explains, “the system itself was not bad, it was just the people who should look at the ideas”. To motivate employees to participate, it is essential to provide feedback on suggestions and manage this process as well.

Responsibility – Accountability

- *Creating awareness* for the role of process owners in cross-departmental projects is seen as a highly relevant task. Not only should employees naturally think of this role in such projects, but the assigned process owner should also support the acceptance of the project in the involved business departments. The foundation of process owner as a role is an essential step for promoting the process orientation.
- *Setting up clear governance rules* is considered an important steering mechanism when it comes to process accountabilities. Particularly, the specification of different roles, such as process sponsor, process owner, and process expert, and the corresponding responsibilities are required. According to the Senior Manager, “By having this split between responsibility and accountability, by having this process ownership, process expert and process sponsor, we can look at the different activities, for one process in a detailed view.” In case of disagreements between the functional heads and process owners, ways of resolving conflicts need to be defined. Established governance structures should be also reflected in documentation available to all employees, such as in process models enriched by RACI (Responsible, Accountable, Consulted and Informed) matrix.

Responsibility - Commitment

- *Motivating through good examples* is understood as an essential driver of individual commitment to process objectives. “[W]hen you look at the process you always have very many functions or departments involved, and this is a risk for everyone because it is not yet so solid in the minds of the people that they can rely on their process chain stakeholders and we have to prove with good projects and good lessons learned that it is worth setting process goals and being optimistic and stick to MBO with process goals.”
- *Rewarding dedication* of employees towards attaining process goals is seen as an important motivator for commitment. The intrinsic motivation of employees is one of the central drivers of goal achievement. The promotion and rewarding of dedicated employees or functions may further stimulate the commitment of others.

Teamwork - Informal Structures

- *Facilitating face-to-face meetings* is considered essential for fostering cross-departmental teamwork. Currently, people often know each other only through impersonal phone or web meetings. It is particularly important to enable teams to build up informal relationships, even more in case of new employees who are not familiar with the culture and working modes yet.
- *Fostering open communication* between departments is seen critical for a comfortable cross-functional working atmosphere. Currently, many different (social) platforms are in place at *ITLeader*. Having one platform which is used by all employees would allow more transparency and would help overcome functional barriers.

Teamwork - Formal Structures

- *Establishing cross-functional meetings* is understood as an important structure to foster thinking beyond departmental boundaries. “[W]hen you think about what are the problems in processes, it is often, or in most cases that the problems occurred between the interfaces, so when the process is cross-functional. [...] To get a common understanding, you need to break these silos [...] in the very beginning.”
- *Defining deliverables* between departments is seen essential for the teamwork between functions. Therefore, service level agreements between different departments in the organization help to structure and achieve the overall common goals of the business processes.

General Culture Development Activities

- *Monitoring the organizational culture* on a regular basis is perceived as a critical factor to sustainable culture development. Particularly in the intensive phase of the PE initiative at *ITLeader*, a continuous evaluation of the organizational culture based on employees’ perceptions should facilitate the intended cultural change.
- *Choosing employees who embrace the desired cultural values* is seen as an important long-term activity to develop the organizational culture. Once project teams share the same cultural values, they stabilize business processes and support maintaining a BPM facilitating organizational culture.

In this section, the derived strategy to address the identified cultural development needs of the case organization was presented. The assessment of BPM-supportive cultural values, more precisely CERT values, was performed by means of a survey. Building on the analysis results, specific guidelines to realize those values were derived based on in-depth interviews for all cultural subdimensions. Considering the tight relation between these empirical findings and theoretical background, we further explicate on particular implications for research and practice.

5 Discussion

The identified activities for developing a BPM-supportive organizational culture in *ITLeader* are linked to the previously introduced BPM-Culture-Model. The culture development strategies provide first insights into how organizations can achieve a cultural fit. As indicated before, understanding the concept of cultural fit is important to study how BPM culture can be facilitated in an organization. To do so, we analyzed the as-is culture in the organizations, examined reasons for shortcomings and derived guidelines for development derived.

5.1 Implications for Research

The study contains several implications for research. First of all, addressing the identified research gap on how to develop a culture that supports BPM extends and

specifies the BPM-Culture-Model of vom Brocke & Sinnl [9]. Despite the fact that the model presents the concept of cultural fit (between BPM culture and cultural context) as the critical element to achieve BPM success, the concept has not been specified beyond a general definition.

While our study certainly does not comprehensively address this research gap, it represents an important first step towards examining how cultural fit can be achieved. Our study provides initial insights into the facets that determine the concept of cultural fit. These may support future research in theorizing how to achieve a cultural fit.

Moreover, the application of the instrument which measures BPM-supportive CERT values showed that the instrument is suitable to identify an overall culture development strategy for organizations [13]. While this is one of the intended use cases of the instrument, it had not been applied to a single case organization to date.

5.2 Implications for Practice

Our study also contains implications for practice. First of all, the research result shows how the use of the CERT values measurement instrument can support organizations in identifying overall culture development strategies. It provides an overview for organizations how far their culture is already supportive of their BPM approach. Based on the perceptions of the eight cultural subdimensions, the organization can identify and focus on exact areas for culture development, and furthermore, they can derive specific activities to improve their culture in the identified dimensions.

Beyond, our research also provides first insights into what these specific activities could look like. Even though it still needs to be assessed how far these findings are transferable to other contexts, our study revealed initial guidelines on how to realize a BPM-supportive organizational culture. These may serve as a starting point for organizations to derive more context-specific guidelines for their own purposes.

5.3 Limitations

We are well aware that our study contains several limitations. First of all, analyzing a single case implies that the generalizability of the results is restricted. Multiple context factors of the examined case could have significant effects on the results. These factors may include the phase of the BPM initiative, the process lifecycle, the industry sector, etc. However, it was not our intention to identify a final set of activities organizations can use to develop their culture but rather to provide first insights on how organizations can derive strategies to implement a BPM-supportive culture.

Besides, our findings are limited to the perceptions of the involved survey participants and interview partners. Involving employees from other processes of the organization or even the entire organization may have yielded different results. Again, for the specific context we focused on, our study provides an initial understanding how organizational culture can be developed in order to facilitate BPM. In this regard, our study contributes to the existing body of knowledge on BPM.

6 Conclusion

Our study aimed at addressing the research question “*How can an organization develop a culture supportive of BPM?*” The research process encompassed both a review of existing research in the field and an empirical investigation of the topic. Particularly, we examined cultural development needs of a specific organization using an existing measurement instrument. On this basis, we conducted in-depth interviews with employees from this organization to derive activities which may help the organization in developing an organizational culture that supports their BPM approach.

In doing so, the findings deepen recent findings and point to facets of achieving a cultural fit. These results extend recent research in the field, particularly the theoretical findings on BPM-Culture-Model and CERT values. However, our findings only provide initial insights to the development of BPM supportive organizational culture and the suggestion of specific guidelines. Further research is still needed to specify these results in different contexts.

References

1. de Bruin, T., Rosemann, M.: Using the Delphi Technique to Identify BPM Capability Areas. In: ACIS 2007 Proceedings, paper 42 (2007)
2. Rosemann, M., vom Brocke, J.: The Six Core Elements of Business Process Management. In: vom Brocke, J., Rosemann, M. (eds.): Handbook on Business Process Management 1. Springer (2010)
3. Alibabaei, A., Bandara, W., Aghdasi, M.: Means Of Achieving Business Process Management Success Factors. In: MCIS 2009 Proceedings (2009)
4. Zairi, M.: Business process management: a boundaryless approach to modern competitiveness. *Business Process Management Journal* 3, 64–80 (1997)
5. Baumöl, U.: Cultural Change in Process Management. In: vom Brocke, J., Rosemann, M. (eds.): Handbook on Business Process Management 2. Springer (2010)
6. Dixon, J., Jones, T.: Gartner Hype Cycle for Business Process Management (2011)
7. Schein, H.E.: *Organizational Culture and Leadership*. John Wiley & Sons (2004)
8. Leidner, D.E., Kayworth, T.: Review: A Review of Culture in Information Systems Research: Towards a Theory of Information Technology Culture Conflict. *MIS Quarterly* 30, 357–399 (2006)
9. vom Brocke, J., Sinnl, T.: Culture in business process management: a literature review. *Business Process Management Journal* 17, 357–378 (2011)
10. Kappos, A., Rivard, S.: A Three-Perspective Model of Culture, Information Systems, and Their Development and Use (2008)
11. Al-Mashari, M., Zairi, M.: BPR implementation process: an analysis of key success and failure factors. *Business Process Management Journal* 5, 87–112 (1999)
12. Schmiedel, T., vom Brocke, J., Recker, J.: Which cultural values matter to business process management? Results from a global Delphi study. *Business Process Management Journal* 19 (2) (2013)
13. Schmiedel, T., vom Brocke, J., Recker, J.: Is your Organizational Culture Fit for Business Process Management?. *Business Process Trends*, 1–5 (2012)
14. vom Brocke, J., Becker, J., Braccini, A.M., Butleris, R., Hofreiter, B., Kapočius, K., De Marco, M., Schmidt, G., Seidel, S., Simons, A., Skopal, T., Stein, A., Steiglitz, S., Suomi,

- R., Vossen, G., Winter, R., Wrycza, S.: Current and future issues in BPM research: a European perspective from the ERCIS meeting 2010. *Communications of the Association for Information Systems*, 393–414 (2011)
15. Hofstede, G.H., Hofstede, G.J.: *Cultures and Organizations: Software of the Mind*. (2005)
 16. Cooper, H.M.: Organizing knowledge syntheses: A taxonomy of literature reviews. *Knowledge in Society* 1, 104–126 (1988)
 17. vom Brocke, J., Simons, A., Niehaves, B., Riemer, K., Plattfaut, R., Cleven, A.: Reconstructing the giant: on the importance of rigour in documenting the literature search process. In: 17th European Conference on Information Systems, pp. 1–13 (2009)
 18. vom Brocke, J., Schmiedel, T.: Towards A Conceptualisation Of BPM-Culture: Results From A Literature Review. In: PACIS 2011 Proceedings (2011)
 19. Webster, J., Watson, R.T.: Analyzing the past to prepare for the future: Writing a literature review. *MIS Quarterly* 26 (2), pp. xiii–xxiii (2002)
 20. Philip, G., McKeown, I.: Business Transformation and Organizational Culture: The Role of Competency, IS and TQM. *European Management Journal* 22, 624–636 (2004)
 21. Yong, K.T., Pheng, L.S.: Organizational culture and TQM implementation in construction firms in Singapore. *Construction Management and Economics* 26, 237–248 (2008)
 22. Guha, S., Grover, V., Kettinger, W.J., Teng, J.T.C.: Business process change and organizational performance: exploring an antecedent model. *Journal of Management Information Systems* 14, 119–154 (1997)
 23. Motwani, J., Kumar, A., Antony, J.: A business process change framework for examining the implementation of six sigma: a case study of Dow Chemicals. *The TQM Magazine* 16, 273–283 (2004)
 24. Motwani, J., Mirchandani, D., Madan, M., Gunasekaran, A.: Successful implementation of ERP projects: Evidence from two case studies. *International Journal of Production Economics* 75, 83–96 (2002)
 25. Motwani, J., Subramanian, R., Gopalakrishna, P.: Critical factors for successful ERP implementation: Exploratory findings from four case studies. *Computers in Industry* 56, 529–544 (2005)
 26. Nah, F.F.-H., Lau, J.L.-S., Kuang, J.: Critical factors for successful implementation of enterprise systems. *Business Process Management Journal* 7, 285–296 (2001)
 27. vom Brocke, J., Sinnl, T.: Applying the BPM-Culture-Model – The Hilti Case. In: 21st Australasian Conference on Information Systems, paper 16 (2010)
 28. Rosemann, M., de Bruin, T.: Towards a business process management maturity model. In: ECIS 2005 Proceedings, pp. 521–532 (2005)
 29. Rosemann, M., de Bruin, T., Hueffner, T.: A Model for Business Process Management Maturity. In: ACIS 2004 Proceedings, paper 6 (2004)
 30. Hammer, M.: The process audit. *Harvard Business Review* 85, 111–119, 122–123, 142 (2007)
 31. Mosadegh Rad, A.M.: The impact of organizational culture on the successful implementation of total quality management. *The TQM Magazine* 18, 606–625 (2006)
 32. Zucchi, F., Edwards, J.S.: Human resource management aspects of business process reengineering: a survey. *Business Process Management Journal* 5, 325–344 (1999)
 33. Baird, K., Hu, K.J., Reeve, R.: The relationships between organizational culture, total quality management practices and operational performance. *International Journal of Operations & Production Management* 31, 789–814 (2011)
 34. Revenaugh, D.L.: Business Process Re-engineering: The Unavoidable Challenge. *Management Decision* 32, 16–27 (1994)

35. Kappos, A., Croteau, A.-M.: Organizational Change and Culture: Insights on BPR Projects. In: AMCIS Proceedings, paper 284 (2002)
36. Cao, G., Clarke, S., Lehaney, B.: A critique of BPR from a holistic perspective. *Business Process Management Journal* 7, 332–339 (2001)
37. Kohlbacher, M., Gruenwald, S.: Process orientation: conceptualization and measurement. *Business Process Management Journal* 17, 267–283 (2011)
38. Creswell, J.W.: *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Sage Publications Ltd. (2012)
39. Benbasat, I., Goldstein, D.K., Mead, M.: The Case Research Strategy in Studies of Information Systems. *MIS Quarterly* 11, 369 (1987)