Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2010 Proceedings

Americas Conference on Information Systems (AMCIS)

8-2010

Does Your Business Process Management (Still) Fit the Market? – A Dynamic Capability Perspective on BPM Strategy Development

Bjoern Niehaves University of Muenster, bjoern.niehaves@ercis.uni-muenster.de

Ralf Plattfaut University of Muenster, ralf.plattfaut@ercis.uni-muenster.de

Jörg Becker University of Muenster, joerg,becker@ercis.uni-muenster.de

Follow this and additional works at: http://aisel.aisnet.org/amcis2010

Recommended Citation

Niehaves, Bjoern; Plattfaut, Ralf; and Becker, Jörg, "Does Your Business Process Management (Still) Fit the Market? – A Dynamic Capability Perspective on BPM Strategy Development" (2010). *AMCIS 2010 Proceedings*. 292. http://aisel.aisnet.org/amcis2010/292

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2010 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Does Your Business Process Management (Still) Fit the Market? – A Dynamic Capability Perspective on BPM Strategy Development

Bjoern Niehaves

University of Muenster, ERCIS, Muenster, Germany bjoern.niehaves@ercis.uni-muenster.de **Ralf Plattfaut**

University of Muenster, ERCIS, Muenster, Germany ralf.plattfaut@ercis.uni-muenster.de

Jörg Becker

University of Muenster, ERCIS, Muenster, Germany joerg.becker@ercis.uni-muenster.de

ABSTRACT

Business Process Management (BPM) can be viewed as a set of techniques to integrate, build, and reconfigure an organization's business processes for the purpose achieving a fit with the market environment. While business processes are rather stable in low-dynamic markets, the frequency, quality, and importance of business process change amplifies with an increase in environmental dynamics. Taking the public sector example, we recognize that market dynamics can change over time (market dynamic shift), here: increase. We show that existing designs of BPM might not be able to cope with the mounting frequency and quality of business process change (market-BPM-misfit). On the basis of a qualitative in-depth case study, we provide evidence that a major cause for such misfit lies in ineffective (second order) organizational learning. We contribute to the literature by applying the Resource-Based View and Dynamic Capability framework to the case of BPM in order to better understand shifts in market dynamics and their consequences for BPM effectiveness. Practitioners find a proposal for identifying, understanding, and reacting to a market-BPM-misfit and for developing market-oriented BPM strategy.

Keywords

Business Process Management, Dynamic Capabilities, Resource-Based View, BPM Strategy.

INTRODUCTION

In the last decades, the environment of public sector organizations has shifted towards being quasi-market. In the 1980s a plethora of reform approaches, especially New Public Management (NPM), was geared towards putting the public sector in a market-like state. NPM constitutes a policy to create and to enhance the cost efficiency of governmental organizations as well as to create competition between public bodies. Numerous other drivers have amplified this development: the financial crisis puts high stress on local governments and forces them to compete with other municipalities for tax-payers and job-creating companies. Even the "death" (Helfat & Peteraf 2003) of organizations is possible, mainly in terms of full depopulation or annexation. As a result, the environment of local governments has become increasingly dynamic and has undergone the major shift from "bureaucratic stability" to an, at least, medium dynamic quasi-market environment (Dunleavy & Hood, 1994; Ferlie, Pettigrew, Ashburner, & Fithgerald, 1996, Pollitt & Bouckaert 2004).

Government reform rhetoric has emphasized the importance of business process change, yet initiatives regularly remain less successful than predicted. It appears to have established as common sense that municipalities need to reevaluate their business processes: cost-cutting, especially in times of the financial crisis, citizen and service quality-orientation, electronic government (Becker, Algermissen, & Niehaves, 2006), transformational government (Irani, Elliman, & Jackson, 2007), and other reform concepts have called for a program of business process change in public organizations (Scholl 2004, Scholl 2005). Most recently, for the case of European governments, the EU Service Directive (the so-called Bolkestein Directive) requires the establishment of a single point of contact for all administrative services and provides yet another major impulse for business process change (Weber & Sure 2009). Despite repeated large efforts in practice and back-up from academia, ad hoc business process change initiatives show little sustainability and long-term success often lacks behind the grand expectations. Instead, "Neo-Weberian bureaucracies" (Pollitt & Bouckaert, 2004) have established and the reform pendulum

appears to swing back (Christensen & Lægreid, 2007). "Stuck in the middle" results and unfinished and un-sustained business process change efforts are habitually explained by the idea of a general reluctance of public administrations to reform themselves (Gulledge & Sommer, 2002). However, while such proposal might be appealing and intuitive, it still provides little guidance for BPM practice or research. What other theories could be utilized to guide the development of BPM strategies in a shifting and increasingly dynamic market environment, such as the public sector?

Dynamic capabilities theory views this phenomenon as a mismatch between environmental requirements (in markets dynamics) and an organization's institutionalized capability to change. In this light, long-term competitive advantage is assumed not to lie in the stable resource configurations of an organization, but in its capacity to change (Eisenhardt & Martin 2000). Here, Dynamic Capabilities represent an organization's specialized set of resources and the firm's ability to integrate, build, and reconfigure operational capabilities for the purpose achieving a fit with the market environment. Business Process Management (BPM) is especially concerned with integrating, building, and reconfiguring an organization's business processes for this purpose. However, the advantages of BPM as a Dynamic Capabilities well depend on the market environment. In a relatively static environment, business process change could be accomplished through the tacit accumulation of experience and sporadic acts of creativity: Ad hoc change. In such situation, investing resources into a large BPM apparatus appears to be unnecessary and far too costly (Zollo and Winter 2002). Taking the example of the public sector, we identify a major shift of market dynamics, from bureaucratic stability to a more dynamic quasi-market environment. Here, we start our investigation based on the assumption that public administrations did not cope with that environment change and that ad hoc business process change efforts are (still) the standard practice. We assume further that 2nd order learning capabilities ('Do we *manage* our business processes effectively?', in contrast to 1st order learning capabilities: 'Are our business processes effective?') have not been developed and that, as a result, decisions on the establishment of BPM are not well informed, are lagged, and render many business process change efforts insufficient in terms of a market misfit.

Our study contributes to both theory and practice. First, we conceptualize BPM as a Dynamic Capability and apply the Resource-Based View of the firm. Second, we empirically assess the status-quo of BPM as a Dynamic Capability in a local government. Third, we deliver evidence for a shift in public sector market dynamics and introduce and discuss the idea of market-BPM-misfit. Fourth, we give policy recommendations for BPM & innovation in the public sector and, more generally, work out a proposal for market-oriented BPM strategy development. This will help (public sector) organizations to achieve a market-BPM-fit and, thus, help them to "survive" in today's environment.

The paper is structured as follows: First, we will build a theoretical foundation, especially drawing from the Resource-Based View, and conceptualize BPM as a Dynamic Capability. The presentation of our research questions and hypotheses is followed by a discussion of the research methodology applied. Case study insights will be laid out and discussed in the light of implications for both theory and practice. The last sections are concerned with limitations, future research, and conclusions.

THEORETICAL FOUNDATION

Resource-Based View

The Resource-Based View of the firm describes organizations as collections of distinct resources and procedures. The term Resource-Based View of the firm (RBV) was coined by (Wernerfelt, 1984) and builds upon earlier work (Learned, Christensen, Andrews, & Guth, 1969; Penrose, 1959). The RBV is widely and increasingly used in the IS domain to explain how information systems relate to the strategy and performance of an organization (Wade & Hulland, 2004). In the context of the RBV, an organization is a collection of resources, capabilities, or assets. In this study, we share Wernerfelt's (1984, p172) understanding of resources as "anything which could be thought of as a strength or weakness of a given firm." Resources embrace both capabilities and assets (Wade and Hulland 2004) while the term capabilities refers to the ability of an organization to perform a coordinated set of tasks (processes) for the purpose of achieving a particular end result (cf. Helfat & Peteraf 2003). Assets, on the other hand, are defined as anything tangible or intangible the firm can use in these processes (Wade & Holland 2004). Capabilities can thus be viewed as repeatable patterns of actions (Wade & Hulland) or coordinated set of tasks (Helfat & Peteraf 2003) – both: processes – that utilize assets as input (Amit & Schoemaker 1993, Helfat & Peteraf 2003).

Dynamic Capabilities and Organizational Learning

The RBV has been criticized for under-emphasizing market dynamics. For instance, Collis (1994, p. 147) argues that there are several reasons why a position of competitive advantage that an organizational resource generates today cannot be

sustained: "erosion of the capability as the firm adapts to external or competitive changes; replacement by a different capability; and being surpassed by a better capability". Eisenhardt & Martin (2000) make the argument that long-term competitive advantage does not lie in stable resource configurations, but in the ability of a firm to adapt these to the market environment. This non-sustainability argument applies best to dynamic market environments where there is "rapid change in technology and market forces, and, feedback effects on firms" (Teece et al. 1997, p. 512).

Dynamic Capabilities aim at aligning resources with a changing market environment. Against the background of the nonsustainability argument, scholars have differentiated two types of capabilities from one another:

- (1) Operational Capabilities are those "that reflect an ability to perform the basic functional activities of the firm, such as plant layout, distribution logistics, and marketing campaigns, more efficiently than competitors." (Collis 1994, p145) They are geared toward the operational functioning of the firm (Zollo & Winter 2002) and closely resemble the original RBV-conceptualization of capabilities. In this paper, we will understand **Operational Capabilities** as *the ability of an organization to perform a coordinated set of tasks, utilizing organizational assets, for the purpose of the operational functioning of the firm* (cf. Zollo & Winter 2002, Winter 2003, Helfat & Peteraf 2003).
- (2) Dynamic Capabilities, on the other hand, have originally been conceptualized by Teece et al. (1997) as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments." (Teece et al. 1997, p. 516) Other conceptualizations emphasize the nature of these capabilities, "a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness." (Zollo and Winter 2002, p. 340) Other authors stress the hierarchical relationship between the two types of capabilities: "Dynamic capabilities build, integrate, or reconfigure operational capabilities. Dynamic capabilities do not directly affect output for the firm in which they reside, but indirectly contribute to the output of the firm through an impact on operational capabilities." (Helfat and Peteraf 2003, p. 999) Based on these arguments, in this paper we will understand **Dynamic Capabilities** *as the firm's ability to integrate, build, and reconfigure operational capabilities for the purpose achieving a fit with the market environment*.

The advantageousness of Dynamic Capabilities depends on the market environment. Dynamic Capabilities typically require long-term investments and commitments of specialized resources (Winter 2003, p. 993), they create costs. Helfat & Peteraf (2003, p. 1002) find: "Improvements in the functioning of a capability derive from a complex set of factors that include learning-by-doing of individual team members and of the team as a whole, deliberate attempts at process improvement and problem solving, as well as investment over time." However, in a relatively static environment change of operational capabilities could be accomplished through the tacit accumulation of experience and sporadic acts of creativity: ad hoc change. Here, Dynamic Capabilities appear to be unnecessary, and if developed may prove too costly to maintain (Zollo and Winter 2002, p. 340). "Learning, change, and adaptation do not necessarily require the intervention of 'dynamic' capabilities as intermediaries." (Helfat and Peteraf 2003, p. 998) The alternative of change in Operational Capabilities through institutionalized Dynamic Capabilities is thus non-institutionalized ad hoc change (1st order learning mechanisms; see Figure 1; BPM-relevant concepts are already included (in brackets) while being referred to later).

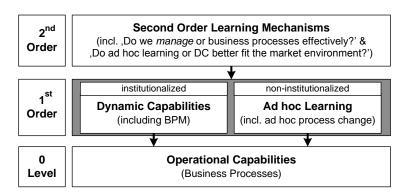


Figure 1. Dynamic Capabilities and Learning (adapted from Zollo & Winter 2002)

Business Process Management

BPM has its seeds in Business Process Reengineering (BPR) and Total Quality Management (TQM). On the one hand, the concept of BPR emerged within a Massachusetts Institute of Technology's management research program that examined the role that IT would play in organizations in the 1990s (Peppard & Fitzgerald 1997). Early publications (Davenport & Short

1990; Hammer 1990) emphasized that BPR projects are radical, revolutionary, and a one-time undertaking (Hung 2006; Zairi & Sinclair 1995). While both BPR and TQM have in common the focus on improving organizational processes, TQM on the other hand is considered a rather incremental, evolutionary approach aiming at continuous improvement (Hung 2006; Zairi & Sinclair 1995). However, most literature in business process research recognizes that both concepts have to be viewed as complementary integral parts of a process-oriented strategic management system (Corbitt et al. 2000; Davenport 1993; De Bruyn & Gelders 1997; Harrison & Pratt 1992; Hung 2006; Martinsons & Hempel 1998; Zairi & Sinclair 1995). For example, Kettinger et al. (1997, p. 56) argue on BPR that "[r]ather than a 'quick fix', BPR is increasingly recognized as a form of organizational change characterized by strategic transformation of interrelated organizational subsystems".

Against this background, BPM can be viewed as a management approach that applies concepts of both punctuated and incremental change. This perspective is supported, for instance, by Armistead & Machin (1997) who argue that BPM is "concerned with how to manage processes on an ongoing basis, and not just with the one-off radical changes associated with BPR". Accordingly, BPM can be considered a holistic approach to the way in which organizations are managed (Armistead & Machin, 1998; Pritchard & Armistead 1999; Rosemann et al. 2006). BPM can be seen as a set of recurring projects that aim at the continuous change of organizational procedures (for focus on change aspects see, for instance, Kettinger et al. 1997; Lyytinen & Newman 2008; Sarker et al. 2006). The focus of BPM projects can range from purely organizational to more technical perspectives (Rosemann et al. 2006; Stohr & Zhao 2001), the latter especially in the course of information systems implementations (for an overview on the relationship between information systems and the innovation of business processes see Tarafdar & Gordon 2007).

RESEARCH QUESTIONS

BPM can be viewed as a Dynamic Capability. On the one hand, literature discusses a plethora of concrete Dynamic Capabilities, such as product development (Eisenhardt & Martin 2000, p. 1106), alliancing (Eisenhardt & Martin 2000, p. 1106; Zollo & Winter 2002, p. 347), acquisition (Eisenhardt & Martin 2000, p. 1109; Zollo & Winter 2002, p. 347), and research & development (Zollo & Winter 2002, p. 340). Further, a bundle of Dynamic Capability examples closely relate to the issue of managing business processes, for instance developing manufacturing processes (Eisenhardt & Martin 2000, p. 1110), "restructuring" (Zollo & Winter 2002, p. 340), "re-engineering" (Zollo & Winter 2002, p. 347), quality improvement (Zollo & Winter 2002, p. 347), and the ability to adapt "operating processes through a stable activity dedicated to process improvements" (Zollo & Winter 2002, p. 340). On the other hand, process-oriented literature views BPM as "a structured approach to analyze and continually improve fundamental activities such as manufacturing, marketing, communications and other major elements of a company's operation" (for example, Zairi 1997, p. 64). Further, a business process is "converting inputs into outputs. It is the way in which all the resources of an organization are used in a reliable, repeatable and consistent way to achieve its goals" (for example, Zairi 1997, p. 64). Against the background of these noticeable commonalities, we review BPM from a Dynamic Capability perspective, including a re-understanding of operational capabilities as business processes: we define Business Process Management as a set of techniques to integrate, build, and reconfigure an organization's business processes for the purpose of achieving a fit with the market environment. Here, a **Business Process** refers to the performing of a coordinated set of tasks, utilizing organizational assets, for the purpose of the operational functioning of the firm. BPM is not identical with the concept of Dynamic Capabilities, but it is, among others, one Dynamic Capability. The argument is that there are several other functions (Dynamic Capabilities), such as R&D or alliancing, which are (traditionally) not covered by BPM. As a result of reviewing BPM in the light of this theoretical perspective, we are able to build upon and embrace the vocabulary, rich theory, and comprehensive findings of the Resource-Based View and the Dynamic Capability Framework for studying, explaining, and intervene in BPM phenomena.

Hence, this paper seeks to address the following research questions while building on the Resource-Based View and Dynamic Capability framework:

(1) Taking the case of local government, how developed is BPM as a dynamic capability?

Here, we aim to explore whether BPM is more or less effective with regard to the purpose of achieving a fit with the market environment and how well the set of techniques to integrate, build, and reconfigure an organization's business processes is established in the organization.

(2) Does the existing BPM (or does it not) fit the market environment (market-BPM-fit)?

We study, if there is a match between BPM as a Dynamic Capability and the quasi-market environments of the public body. The results of the first research question are reflected against the (shifting) dynamics in the environment of local administrations. We assume that there will be a market-BPM-misfit due to a dynamic capability adaption lag.

(3) In case of a market-BPM-misfit, why does it exist?

We assume a misfit between environmental dynamics and public sector BPM as a result of 1) organizational culture, 2) deficient organizational learning, especially 2nd order learning (see again figure one), and 3) financial and regulatory restrictions. Our first hypothesis is based on an expected lag in the perception of decision makers: on the basis of a history characterized by bureaucratic stability, decision makers might expect only little change or dynamics in the future. Zollo & Winter (2002, p. 346) argue, decision makers might put "different bets [...] on the strategic importance of change in the future", based on their past experiences in a then stable environment. The second hypothesis proposes that local government organizations feature deficient learning mechanisms that prevent the creation of dynamic capabilities. Business processes are still changed in an ad hoc manner (1st order learning). As a result of only some skill in establishing dynamic capabilities, 2nd order learning capabilities ('Do we manage our business processes effectively?' or 'Do ad hoc learning or Dynamic Capabilities better fit the market environment?') have not been developed and that, as a result, decisions on the establishment of BPM are not well informed which leads to suboptimal results. Our third hypothesis is based on the financial situation (especially in the recent financial crisis) and/or due to public sector regulations resulting from the financial situations: budget consolidation plans, for instance, often allow only material investments (such as bridges, buildings etc.) and not in IT, human resources, or organizational/process improvement.

RESEARCH METHODOLOGY

In order to study our research model, we chose to conduct an in-depth case study and tie in with the rich tradition of qualitative IS research (for instance, Kern & Willcocks 2002; Mingers 2003; Remenyi & Williams 1998; Silverman 1998). We will first summarize the case study setting and, then, discuss the process of data collection and analysis.

Case Setting. The organization studied is a local government in the western part of Germany. With more than 6,000 employees working in about 50 departments, the organization is one of the larger public bodies in the federal state of North-Rhine-Westphalia. The organization department is formally responsible for BPM activities which here are typically associated with re-engineering and/or IT implementation projects. With a budget deficit of more than 100 Million Euros, the financial situation of that local government is severe. On the one hand, the management expects BPM to contribute to consolidating this deficit, to cut costs and to improve efficiency. On the other hand, the organization faces other challenges, such as E-Government or the EU service directive (Weber & Sure 2009), that require BPM to contribute to major structural changes and increased effectiveness as well. With regard to these contextual factors, the case setting can be considered representative for many public administrations in the European Union.

Data Collection. The period of intensive data collection lasted from October 2009 to December 2009, with a prior wave serving the purpose of selecting adequate cases studies with regard to the research question (June 2009 to September 2009). We employed multiple data collection methods in order to exploit the synergetic effects of combining them via triangulation (Capaldo 2007; Jick 1979; Yin 2003,). Three sources of evidence are included in our analysis: focused individual interviews (primary method), direct observations, and documentary information.

- Focused Individual Interviews. The primary sources of evidence are interviews with the key actors in the organization's BPM efforts. Ranks of interview partners included, for instance, head BPM unit, head IT department, head organization department, as well as members of quality management, accounting and others. When contacting our case study organization, we were directed to a contact person, habitually the one formally responsible for BPM. Being the first experts interviewed, they connected us with other significant actors in each setting. Regarding the interviewe selection, we thus followed a purpose-driven snowball sampling approach (Salganik & Heckathorn 2004). As a result, twelve interviews were conducted leading to a total of 1,250 minutes of interview time, and more than 94,000 words of transcript. An interview thus lasted more than 1 hour in average.
- Documentary Information. Several materials produced by or about the organization were incorporated as supplementary source of evidence. For instance, business process documentations, organization charts, press articles, internet sources, research reports, project documentations, minutes of project meetings, or other reports helped us to reconstruct the case study setting in great detail.
- Direct Observations. We were able to directly observe the settings and relevant events throughout a total of 16 site visits. This included, for instance, observing the working procedures and analyses of BPM tools applied. These direct observations yielded additional understanding of the case study setting.

Data Analysis. A total of more than 20 hours of interviews, equating to 94,430 words of transcript, were included in the analysis. As initial step, the first two authors coded the data individually for any relation to the variables of our hypotheses,

while all interview data was reviewed in the light of available documentary information and of direct case observations. Afterwards, the resulting coded data were contrasted among the first two authors' perspectives. In case of unresolved differences, the third author was consulted. Then, the codes were interpreted and structured with the help of the theoretical framework. Here again, if no consensus was achieved among the first and the second author, the third party was involved for conciliation. The interpretation of data and refinement of theory elements were highly recursive and formed a continuous interplay (Myers 2008). Such approach yielded the advantage that, both, the authors' understanding of the case findings as well as the refinement of theory gradually improved. A set of questions was presented to the interviewees and was then followed by a comprehensive open discussion.

FINDINGS

Market Dynamics

Shift of Market Dynamics: Our study provides evidence for a shift (increase) of environment dynamics. In the past, local governments faced a rather stable bureaucratic environment in which competition between administrations was uncommon. Therefore, there was no need for changing the government's resource configuration. However, since the advent of NPM the environment became increasingly dynamic. This environment has even been named "quasi-market" (Dunleavy & Hood, 1994; Ferlie, Pettigrew, Ashburner, & Fithgerald, 1996). Especially the EU services directive has been named as a main driver for competition and dynamics. The Bolkestein Directive is one reason why "*we should not forget that local administrations are competitors*", as a middle manager in our case organization put it. Subsuming, the politically desired shift towards higher dynamics was realized and is recognized by a large share of the organization's management.

How Developed is the BPM?

Our case shows that only a small part of the organization posses the necessary knowledge on how to adequately implement process changes. BPM initiatives either are still in the very early phases or have already failed (ad RQ1). Up to now, there are only a very few adapted business processes and no institutionalized BPM capabilities. One department of the organization started with a BPM project and introduced e.g. a BPM tool and a corresponding modeling language. However, another department is currently planning to start with a BPM project as well. However, only through our research project they got to know that the tool they were planning to buy is the very same already introduced in the first department. Even so, the majority of departments and divisions mainly ignore the topic of process change at the moment. Thus, there is no concrete plan for action so far, although governmental reforms put high pressure on local administrations. One middle manager from the organization department stated that "We are still at the very beginning; so far, we did neither touch our processes nor change our organizational structure."

Is there a Market-BPM-Misfit?

Subsuming, the local government studied did not react on the shift in market dynamics and did not adapt its BPM adequately. From a theory point of view, a sustained increase in market dynamics should lead to the introduction of Dynamic Capabilities, here BPM. More dynamic markets demand for more frequent business process change, and such change is of greater strategic relevance. However, we can observe a market-BPM-misfit.

Why does this Misfit exist?

Organizational Culture: Although there was agreement on the market shift there was no commitment to change observable. In general, management – and especially the middle management – agreed on a shift towards higher dynamics. However, the recognition of this shift is not transformed into organizational change yet. Many employees regard change as "*not my business*", as it was said by one interviewee. Moreover, the interviews, documentary information, and direct observations suggest that the culture of the organization is locking the organization in the status-quo – or even striving for the status-quo ante. Although the need for change is recognized, little change has effectively happened. The EU service directive, for example, the organization was well aware of the directive since 2004, while it came into force in December 2006. Although the final implementation date was the end of 2009, the organization studied is still struggling with the implications of the directive: Necessary changes of business processes are not fully implemented or lived. Apparently, one reason for an observable market-BPM-misfit is a lag in perception of the shift.

Organizational Learning: Organizational learning is a key issue in implementing BPM in order to fit the changing environment. Parts of the administration studied acknowledged the importance of trainings and learning-before-doing. However, so far, there are no comprehensive training courses or programs. Instead of training new methodologies for BPM $(1^{st} \text{ order learning})$, yet only a few people are trained in old techniques which will become more and more obsolete. Hence,

the administration is yet in the beginning. However, some middle managers already acknowledge the problem of missing know-how. Moreover, they already anticipate that this problem is growing due to the demographic change in the workforce of the organization. In the past, several reforms, e. g. in the local government reform between 1967 and 1978 where municipalities were incorporated by others, led to an increase of dynamics as well. However, the local governments anticipated correctly that the phase of increased dynamics will only be short-term. Thus, they changed their processes, i.e. their operational capabilities, in an ad-hoc manner, often with the help of external consultancies. Hence, neither 1st nor 2nd order learning capabilities are expressed: The organization does not employ the right measures to learn new methodologies and capabilities to face the rising dynamics in its environment.

Financial and Regulatory Restrictions: Several financial issues prevent the city studied to build up the BPM for institutionalizing process change. Due to the financial crisis and the structural change of the economy, the case administration studied faces severe financial problems. So far, it has to follow a strict budget consolidation plan which impedes new investments in IT or in human resources. Hence, managers and employees acknowledge that the financial situation is a great barrier to adopting BPM and to adapting both the Operational and the Dynamic Capabilities to the changed environment: *"We should do more, but this is impossible due to our budget situation"* and *"Our financial situation is a huge constraint for introducing BPM*" were statements by two of the middle managers. Hence, the financial situation of the city studied is a significant problem for building Dynamic Capability for business process change.

DISCUSSION

Implications for theory. Our findings both answer the research questions and confirm – at least partially – the hypotheses stated above. Both literature and our study reveal that the dynamic of the environment of local government has shifted in the near past. Local administrations nowadays face a more and more market-like setting – a quasi-market. Hence, theory suggests that investing in dynamic capabilities (here: BPM) is necessary to constantly adapt the operational capabilities to the environment. However, we can observe that, at least for the case of BPM as a dynamic capability, this investment has not been accomplished so far: The case study data suggests that the administration studied has not implemented BPM as a dynamic capability yet. These results give answers to the research questions 1 and 2: First, we found that BPM as a dynamic capability is not developed to a great extent. In fact, the organization is still at the very beginning. Second, our assumption of a misfit between BPM and the environment has been confirmed. However, our study also reveals that adaption to environmental changes has happened in the past. In the past, several occasions led to peaks in market dynamics. The environment of local public sector organizations stayed comparably low-dynamic, but, e.g. through the above mentioned annexation reform, a peak of dynamic occurred. The organization had to react on a peak with process changes. These process changes occurred, though with a small lag of time, with the help of ad-hoc 1st order learning mechanisms or the use of consultancy services. Both options are valid reactions on the change of market dynamics. However, in today's situation of a persistent market dynamic shift we observe both a lagged and a less intense reaction in form of process change. Although theory suggests that institutionalization of dynamic capabilities (in terms of BPM) is a necessary reaction on a persistent market dynamic shift the organization stays in the old pattern and tries to adapt business processes using ad-hoc measures (cf. Figure 2).

These findings help to answer the third research question (Why does a BPM-market-misfit exist?) where we posed three hypotheses. First, the usage of old behavioral patterns is well documented in the literature on BPM in public sector organizations (Gulledge & Sommer, 2002). The culture of the organization is not ready for change and hinders the institutionalization of dynamic capabilities as decision makers put wrong bets on the importance of change (cf. Zollo & Winter, 2002). Second, the organization neglected the necessity to install learning-before-doing for BPM. New methodologies are not incorporated which hinders the development of BPM: Business processes are still changed in an ad hoc manner (1st order learning). Third, the organization faces financial stress. As BPM is not regarded as highly prioritized (if at all) there is a tendency to cut down necessary change projects. Moreover, an organization-wide BPM strategy is considered too costly. Thus, the organizations only measure to change processes is to stay with ad-hoc learning mechanisms as even external consultants are not affordable. Subsuming, all three reasons play together and result in a misfit of market dynamics and dynamic capability.

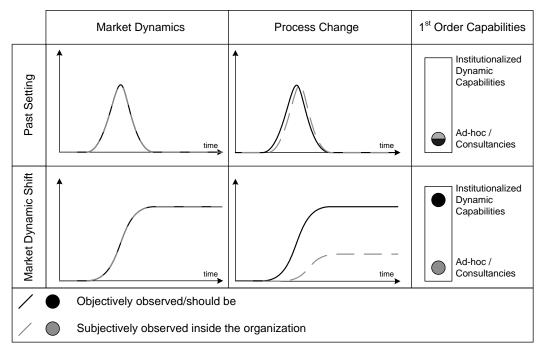


Figure 2. Reaction on different Variations in Market Dynamics

Further contributions to theory result from the theoretical conceptualization. BPM can be understood as a Dynamic Capability in terms of an extended RBV. Business processes can be regarded operational capabilities applied by an organization to "make a daily living". A business process is a coordinated set of tasks, utilizing organizational assets, for the purpose of the operational functioning of the firm. BPM is an institutionalized first order capability: a set of techniques to integrate, build, and reconfigure an organization's business processes for the purpose of achieving a fit with the market environment. Thus, BPM consists of the resources held in stock in order to be able to change the organization. Hence, the way BPM is established in an organization depends, as costs come into play, heavily on the dynamics in the environment. A high-velocity market demands a different BPM organization than, e. g., a medium-dynamic market. We showed that this perception is valid by employing it exemplarily in the public sector. Moreover, with this contribution we elaborate on market dynamics shifts. In our setting, the environment of the organization studied became more dynamic and this resulted in a need for changes of the dynamic capability.

Implications for practice. Local administrations should assess and evaluate their BPM with the background of the corresponding market environment. So far, reform policies seem to be not successfully implemented. Apparently, local public sector organizations did not react on the persistently changed dynamics in their market environment. However, as theory suggests they should build up the Dynamic Capability of BPM for themselves in order to adapt their business processes to fit the setting. As a first step, a reflection on BPM activities of local administrations seems to be considerable as this would shed some light on the status-quo (2nd order learning). A maturity assessment (Rosemann, de Bruin, & Power, 2006) could help here to show potential paths towards a fitting BPM. However, this maturity assessment should, once again, consider the market environment dynamics.

Limitations. Our results are limited by certain factors. First, we studied only one local administration. Thus, it could be difficult to generalize from this setting to other organizations in other sectors or regions. However, we believe that the organization studied is typical for "western" local administrations and that the situation can, therefore, be transferred very well. While we acknowledge that other industries will face different problems, the consideration of the issues mentioned in this study provides a first valuable starting point.

Future research. Both our limitations and contributions show potentially fruitful areas for future research. First, future research could strive for comparing our results with other public sector organizations both national and international. Second, future studies could try to transfer our results into other industries. We believe that the concept of market dynamic shift is observable in other sectors as well. Thus, understanding BPM as a DC helps in understanding the misfit of BPM and the corresponding environment. However, our study has an exploratory character as well and, thus, future research could try to

confirm our findings. Third, future research could enhance the understanding of BPM as a dynamic capability in the RBV framework. One example is to study related concepts as workflow management or enterprise content management in the DC framework.

CONCLUSION

With this paper, we set out to understand BPM as Dynamic Capability (in the notion of the RBV) to adapt an organizations business processes to fit the environment. We especially focused on the influence of market dynamics on BPM and, moreover, on shifting market dynamics. We posed hypotheses why the BPM of organizations located in an environment with increasing dynamics does not fit the corresponding environmental demands. In order to evaluate our hypotheses, we conducted a case study at a local administration. We could find evidence for a market dynamic shift in both literature and case study data. Moreover, we could show that a misfit between BPM as a dynamic capability and a dynamic environment exists: The organization studied did not institutionalize BPM to a sufficient extent. We could confirm all three hypotheses: Apparently the organization neglects a long-term market dynamic shift, has not built adequate 1st and 2nd order learning capabilities, and is financially stressed so that projects to build up BPM are cut down. Our results could be generalized to local administrations in western countries as the public sector culture is often said to be status-quo-focused.

REFERENCES

- 1. Amit, R. and Shoemaker, P. J. H. (1993) Strategic Assets and Organizational Rent. *Strategic Management Journal*, 14, 1, 33-46.
- 2. Armistead, C. and Machin, S. (1997) Implications of business process management for operations management. *International Journal of Operations & Production Management*, 17, 9, 886-898.
- 3. Armistead, C. and Machin, S. (1998) Business process management: implications for productivity in multi-stage service networks, *International Journal of Service Industry Management*, 9, 4, 323-336.
- 4. Becker, J., Algermissen, L. and Niehaves, B. (2006) A procedure model for process oriented e-government projects. *Business Process Management Journal*, 12, 1, 61-75.
- 5. Capaldo, A. (2007) Network Structure and Innovation: The Leveraging of a Dual Network as a Distinct Relational Capability. *Strategic Management Journal* (28:6), pp. 585-608.
- 6. Christensen, T. and Lægreid, P. (2007) Transcending new public management: the transformation of public sector reforms, Ashgate Publishing.
- 7. Collis, D. J. (1994) Research note: How valuable are organizational capabilities? *Strategic Management Journal*, 15. 143-152.
- 8. Corbitt, G. F., Christopolus, M. and Wright, L. (2000) New Approaches to Business Process Redesign A Case Study of Collaborative Group Technology and Service Mapping, *Group Decision and Negotiation*, 9, 2, 97-107.
- 9. Davenport, T. H. and Short, J. (1990) The New Industrial Engineering: Information Technology and Business Process Redesign, *Sloan Management Review*, 31, 4, 11-27.
- 10. Davenport, T. H. (1993) Need radical innovation and continuous improvement? Integrate process reengineering and TQM, *Planning Review*, 21, 3, 6-12.
- 11. De Bruyn, B. and Gelders, L. (1997) From TQM to BPR Two case studies in personnel administration." *International Journal of Production Economics*, 50, 2-3, 169-181.
- 12. Dunleavy, P. and Hood, C. (1994). From old public administration to new public management. *Public Money & Management*, 14, 3, 9–16.
- 13. Eisenhardt, K.M. and Martin, J.A. (2000) Dynamic Capabilities: What are they? *Strategic Management Journal*, 21, 4, 1105-1121.
- 14. Ferlie, E., Pettigrew, A., Ashburner, L. and Fithgerald, L. (1996) *The New Public Management in Action*. Oxford University Press.
- 15. Gulledge, T. R. and Sommer, R. A. (2002) Business process management: public sector implications. *Business Process Management Journal*, 8, 4, 364-376.
- 16. Hammer, M. (1990) Reengineering Work: Don't Automate, Obliterate, Harvard Business Review, 68, 4, 104-112.
- 17. Harrison, D. B. and Pratt, M. D. (1992) A methodology for reengineering businesses. Planning Review, 21, 2, 6-11

- 18. Helfat, C.E. and Peteraf, M.A. (2003) The Dynamic Recource-Based View: Capability Lifecycles. *Strategic Management Journal*, 24, 997-1010.
- 19. Hung, R. Y.-Y. (2006) Business Process Management as Competitive Advantage: A Review and Empirical Study, *Total Quality Management*, 17, 1, 21-40.
- 20. Irani, Z., Elliman, T. and Jackson, P. (2007) Electronic transformation of government in the U.K.: a research agenda, *European Journal of Information Systems*, 16, 4, 327-335.
- 21. Jick, T.D. (1979) Mixing qualitative and quantitative methods: triangulation in action. *Administrative Science Quarterly*, 24, 602-611.
- 22. Kern, T. and Willcocks, L. (2002) Exploring relationships in information technology outsourcing: the interaction approach, *European Journal of Information Systems*, 11, 1, 3-19.
- 23. Kettinger, W. J., Teng, J. T. C. and Guha, S. (1997) Business Process Change A Study of Methodologies, Techniques, and Tools, *MIS Quarterly*, 21, 1, 55-80.
- 24. Learned, E., Christensen, C., Andrews, K. and Guth, W. (1969) Business policy: Text and cases. Homewood, IL: Irwin.
- 25. Lyytinen, K. and Newman, M. (2008) Explaining Information Systems Change: A Punctuated Socio-Technical Change Model, *European Journal of Information Systems*, 17, 4, 589-613.
- 26. Martinsons, M. G. and Hempel, P. S. (1998) Chinese business process re-engineering, International Journal of Information Management, 18, 6, 393-407.
- 27. Mingers, J. (2003) The paucity of multimethod research: a review of the information systems literature, *Information Systems Journal*, 13, 3, 233-249.
- 28. Myers, M. D. (2008) Qualitative Research in Information Systems, MIS Quarterly, 21, 2, 241-242.
- 29. Penrose, E. P. (1959) The Theory of the Growth of the Firm. New York: John Wiley & Sons.
- 30. Peppard, J. and Fitzgerald, D. (1997) The transfer of culturally-grounded management techniques: the case of business process reengineering in Germany, *European Management Journal*, 15, 4, 446-460.
- 31. Pollitt, C. and Bouckaert, G. (2004). *Public management reform: a comparative analysis* (2 ed.). Oxford, UK: Oxford University Press.
- 32. Pritchard, J.-P. and Armistead, C. (1999) Business process management lessons from European business, *Business Process Management Journal*, 5, 1, 10-32.
- 33. Remenyi, D. and Williams, B. (1998) The nature of research: Qualitative or quantitative, narrative or paradigmatic?" *Information Systems Journal*, 6, 2, 131-146.
- Rosemann, M., de Bruin, T. and Power, B. (2006) A model to measure business process management maturity and improve performance. In J. Jeston & J. Nelis, *Business Process Management*. Burlington, MA: Butterworth Heinemann, 299-315.
- 35. Salganik, M. J. and Heckathorn, D. D. (2004) Sampling and Estimation in Hidden Populations Using Respondent-Driven Sampling. *Sociological Methodology*, 34, 1, 193-240.
- 36. Sarker, S., Sarker S. and Sidorova, A. (2006) Understanding business process change failure: An actor-network perspective, *Journal of Management Information Systems*, 23, 1, 51-86
- 37. Scholl, H. J. (2004) *The dimensions of business process change in electronic government*. In W. Huang, K. Siau & K. K. Wei (Eds.), Electronic government strategies and implementation. Hershey PA.: Idea Group Pub, pp. 44-67.
- 38. Scholl, H. J. (2005) E-government-induced business process change (BPC): An empirical study of current practices. *International Journal of Electronic Government Research*, 1, 2, 25-47.
- 39. Silverman, D. (1998) Qualitative research: meanings or practices? Information Systems Journal, 8, 1, 3-20.
- 40. Stohr, E. A. and Zhao, J. L. (2001) Workflow automation: Overview and research issues, *Information Systems Frontiers*, 3, 3, 281-296.
- 41. Tarafdar, M. and Gordon, S. R. (2007) Understanding the Influence of Information Systems Competencies on Process Innovation: A Resource-Based View, *Journal of Strategic Information Systems*, 16, 4, 353-392.
- 42. Teece, D.J., Pisano, G. and Shuen, A. (1997) Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18, 7, 509-533.

- 43. Wade, M. and Hulland, J. (2004) Review: The Resource-Based View and Information Systems Research: Review, Extension and Suggestions for Future Research, *MIS Quarterly*, 28, 1, 107-142.
- 44. Weber, I. and Sure, Y. (2009) Towards an Implementation of the EU Services Directive with Semantic Web Services; 12th International Conference on Business Information Systems, Poznan Poland, 217-227.
- 45. Wernerfelt, B. (1984) A resource-based view of the firm, Strategic Management Journal, 5(2), pp. 171-180.
- 46. Winter, S.G. (2003) Understanding Dynamic Capabilities. *Strategic Management Journal*, 24, 7, 991-995.
- 47. Yin, R. K. (2003) Case Study Research: Design and Methods, Sage Publications, London, England
- 48. Zairi, M. and Sinclair, D. (1995) Business process re-engineering and process management a survey of current practice and future trends in integrated management, *Management Decision*, 33, 3, 3-16.
- 49. Zairi, M. (1997) Business process management: a boundaryless approach to modern competitiveness. *Business Process Management Journal*, 3, 1, 64-80.
- 50. Zollo, M. and Winter, S. G. (2002) Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13, 3, 339–351.