UNIVERSITY OF LJUBLJANA
FACULTY OF ECONOMICS

BRINA BUH

APPROACHES TOWARDS BUSINESS PROCESS MANAGEMENT ADOPTION UNDER DIFFERENT ORGANIZATIONAL CULTURES

DOCTORAL DISSERTATION

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AUTHORSHIP STATEMENT

The undersigned Brina Buh, a student at the University of Ljubljana, Faculty of Economics (hereafter: FELU), author of this doctoral dissertation with the title Approaches towards business process management adoption under different organizational cultures (Pristopi k privzemanju managementa poslovnih procesov v pogojih različnih organizacijskih kultur), prepared under supervision of prof. dr. Mojca Indihar Štemberger.

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APPROACHES TOWARDS BUSINESS PROCESS MANAGEMENT ADOPTION UNDER DIFFERENT ORGANIZATIONAL CULTURES

SUMMARY

Organizational culture has a significant impact on the success of adopting Business Process Management (BPM). It has different dimensions and characteristics, some of which are perceived as facilitating changes while some work as barriers to changes. Knowing which cultural characteristics and how they affect the adoption of BPM is important since this helps organizations foster those dimensions of culture that facilitate BPM, and be aware of their cultural weaknesses in order to overcome them (Alibabaei, Aghdasi, Zarei & Stewart, 2010).

The importance of an organizational culture that is conducive to BPM practices has been widely acknowledged in the literature. In fact, it is argued that the success of BPM adoption relies upon the prevailing organizational culture (Alibabaei et al., 2010; Bandara, Alibabaei & Aghdasi, 2009; vom Brocke & Schmiedel, 2011). Studies have also shown that a fit is needed between the approach to BPM adoption and the culture of the organization (e.g. Armistead & Machin, 1997).

However, despite the well-established acknowledgement of the impact of organizational culture on the success of BPM adoption (de Bruin, 2009), the topic of culture in BPM is still under-researched (vom Brocke & Sinnl, 2011), and there is a gap in the empirical literature examining the association between organizational culture and the adoption of BPM. Therefore, the purpose of the dissertation is to improve the understanding and provide a framework for the relationship between BPM adoption and the different organizational culture types. The dissertation aims to explore how BPM adoption success is associated with organizational culture. In particular, how success in adopting BPM varies between different types of organizational culture, and which approach to BPM adoption is appropriate considering the existing organizational culture in the organization.

The dissertation first reviews the existing literature to provide insights into the relationship between BPM adoption and organizational culture, specifically the different types of organizational culture defined by Cameron and Quinn (2006). The findings show that this topic is under-researched. There is a gap in the empirical literature directly examining the correlation between culture types and process performance. In addition, the approach to BPM adoption under different culture types has not been systematically addressed, although the importance of a fit between BPM and organizational culture is well recognised. Based on the literature review, a framework is proposed that connects organizational culture with the BPM adoption success through the approach towards BPM adoption. The framework can serve as a starting point to structure future research on this topic, which is required to gain a better understanding of the relationship between the different organizational culture types and BPM adoption.

Second, the dissertation addresses the gap in the empirical literature examining the association between organizational culture and success in adopting BPM. An empirical research study is conducted based on a survey design in order to investigate how success in adopting BPM varies between different types of organizational culture. The survey was conducted among top managers and (where applicable) process owners in organizations with more than 50 employees in Slovenia and Croatia. The findings show significant differences between BPM adoption success across the various organizational culture types. Clan culture is identified as being the most favourable for BPM adoption with the highest level of BPM adoption success. On the other hand, organizations with a dominant Hierarchy culture achieved the lowest level of BPM adoption success. In addition, a significantly negative correlation was found between the Hierarchy culture and all aspects of BPM adoption success. Therefore, the Hierarchy culture is identified as less favourable for BPM adoption. A significant connection between BPM adoption success and organizational culture is found, thereby contributing to cultural studies in IS and informing research on BPM.

Third, the question of how BPM adoption can be approached in an organization depending on its organizational culture is addressed. Exploratory research is conducted, including two case studies researching approaches to BPM adoption under specific organizational cultures identified in the survey research as being less favourable for adopting BPM (i.e. the Hierarchy and Hierarchy-Market cultures). The data collection methods included in-depth interviews, a review of case documentation about the BPM initiative, and an online survey on organizational culture and BPM adoption success. The findings show that a formal, well-organized and controlled approach worked well in the studied cases. Clearly defining the decision-making authority and emphasis on the benefits of BPM also seemed to contribute to successful BPM adoption in the studied organizations. The findings extend the body of knowledge regarding cultural issues in BPM, and thereby contribute to greater success in BPM adoption.

The dissertation provides a better understanding of the relationship between organizational culture and BPM adoption success. The findings can help organizations prepare their BPM initiative by including a culture analysis in the preparatory phase of their BPM adoption. This is especially important for organizations with organizational culture types that are less supportive of BPM adoption (e.g. Hierarchy culture). Since organizational culture plays a significant role in the successful adoption of BPM, organizations should be aware of their dominant culture type and its characteristics, and choose the appropriate approach to BPM adoption.

Keywords: Business Process Management (BPM), BPM adoption, BPM adoption success, organizational culture, approach to BPM adoption

PRISTOPI K PRIVZEMANJU MANAGEMENTA POSLOVNIH PROCESOV V POGOJIH RAZLIČNIH ORGANIZACIJSKIH KULTUR

POVZETEK

Organizacijska kultura ima pomemben vpliv na uspešnost privzemanja managementa poslovnih procesov (MPP). Ima različne dimenzije in značilnosti, ki lahko bodisi omogočajo izvajanje sprememb bodisi delujejo kot ovire na poti do sprememb. Poznavanje kulturnih značilnosti in kako le te vplivajo na privzemanje MPP pomaga organizacijam spodbujati tiste dimenzije, ki podpirajo doseganje ciljev MPP. Obenem pa jim omogoča tudi, da se zavedajo svojih kulturnih slabosti, da bi jih lahko odpravile (Alibabaei, Aghdasi, Zarei & Stewart, 2010).

Pomembnost organizacijske kulture, ki je ugodna za MPP, je splošno priznana v literaturi. Številne raziskave so tudi ugotovile, da je uspešnost privzemanja MPP odvisna od prevladujoče organizacijske kulture (Alibabaei et al., 2010; Bandara, Alibabaei & Aghdasi, 2009; vom Brocke & Schmiedel, 2011). Prav tako so študije pokazale, da mora obstajati ujemanje med pristopom k privzemanju MPP in kulturo organizacije (npr. Armistead & Machin, 1997).

Toda kljub zavedanju o pomembnosti vloge, ki jo ima organizacijska kultura pri zagotavljanju uspešnosti privzemanja MPP (de Bruin, 2009), je tema kulture v povezavi z MPP še vedno premalo raziskana (vom Brocke & Sinnl, 2011). V empirični literaturi obstaja vrzel glede povezave med organizacijsko kulturo in privzemanjem MPP. Namen disertacije je zato izboljšati razumevanje odnosa med privzemanjem MPP in različnimi tipi organizacijske kulture ter razviti teoretični okvir, ki prikazuje ta odnos. Poleg tega je namen tudi raziskati, kako je uspešnost privzemanja MPP povezana z organizacijsko kulturo. Zlasti, kako se uspešnost privzemanja MPP razlikuje glede na različne tipe organizacijske kulture ter kateri pristop k privzemanju MPP je primeren glede na obstoječo organizacijsko kulturo v organizaciji.

V disertaciji je najprej predstavljen pregled obstoječe literature, ki da vpogled v odnos med privzemanjem MPP in organizacijsko kulturo, oz. bolj natančno različnimi tipi organizacijske kulture, kot sta jih definirala Cameron in Quinn (2006). Ugotovitve kažejo, da je ta tema premalo raziskana, predvsem z vidika direktnega preučevanja povezave med tipi kulture in procesno uspešnostjo. Poleg tega tudi pristopi k privzemanju MPP v pogojih različnih organizacijskih kultur v literaturi niso sistematično obravnavani, čeprav je pomembnost ujemanja med MPP in organizacijsko kulturo splošno priznana. Na podlagi pregleda literature je predlagan konceptualni model, ki povezuje organizacijsko kulturo z uspešnostjo privzemanja MPP preko pristopa k privzemanju MPP. Ta okvir lahko služi kot izhodišče za nadaljnje raziskave, ki so potrebne za boljše razumevanje odnosa med različnimi tipi organizacijske kulture in privzemanjem MPP.

Nadalje, disertacija obravnava vrzel v empirični literaturi glede povezave med organizacijsko kulturo in uspešnostjo privzemanja MPP. Izvedena je empirična raziskava, ki na podlagi anketnega raziskovanja obravnava, kako se uspešnost privzemanja MPP razlikuje med različnimi tipi organizacijske kulture. Anketa je bila izvedena med vrhnjimi managerji in (kjer je bilo možno) lastniki procesov v organizacijah z več kot 50 zaposlenimi v Sloveniji in na Hrvaškem. Rezultati so pokazali pomembne razlike v uspešnosti privzemanja MPP med različnimi tipi organizacijske kulture. Klanska kultura je identificirana kot najugodnejša za privzemanje MPP z najvišjo stopnjo uspešnosti privzemanja MPP. Najnižjo stopnjo uspešnosti privzemanja MPP so dosegle organizacije s prevladujočo Hierarhično kulturo. Poleg tega so rezultati pokazali, da je med Hierarhično kulturo in uspešnostjo privzemanja MPP statistično značilna negativna korelacija. Hierarhična kultura je torej identificirana kot manj ugodna za privzemanje MPP. Raziskava je pokazala, da obstaja pomembna povezava med uspešnostjo privzemanja MPP in organizacijsko kulturo ter na ta način prispevala k literaturi s podobno tematiko.

Disertacija nato obravnava vprašanje, kako pristopiti k privzemanju MPP v organizaciji glede na njeno organizacijsko kulturo. Izvedeni sta dve raziskovalni študiji primerov, ki se osredotočata na pristope k privzemanju MPP v pogojih določenih tipov organizacijske kulture, ki sta bila v anketni raziskavi identificirana kot manj ugodna za privzemanje MPP (t.j. Hierarhična in Hierarhično-Tržna kultura). Zbiranje podatkov je potekalo preko poglobljenih intervjujev, pregleda projektne dokumentacije o iniciativi MPP ter spletnih anket o organizacijski kulturi in uspešnosti privzemanja MPP. Ugotovitve so pokazale, da se je formalen, dobro organiziran in nadzorovan pristop v obravnavanih organizacijah izkazal za ustreznega. Jasna opredelitev pristojnosti odločanja ter poudarek na prednostih MPP sta prav tako prispevala k uspešnemu privzemanju MPP v preučevanih organizacijah. Raziskava razširja vedenje na področju kulture v MPP in prispeva k bolj uspešnemu privzemanju MPP.

Disertacija zagotavlja boljše razumevanje odnosa med organizacijsko kulturo in uspešnostjo privzemanja MPP. Ugotovitve disertacije lahko pomagajo organizacijam, da izboljšajo svoje možnosti za uspešen privzem MPP, tako da v pripravljalno fazo iniciative MPP vključijo tudi analizo kulture in nato ustrezno prilagodijo svoj pristop k privzemanju MPP. To je še posebej pomembno za organizacije z organizacijsko kulturo, ki je manj ugodna za privzemanje MPP (npr. Hierarhična kultura). Organizacijska kultura ima pomembno vlogo pri uspešnosti privzemanja MPP, zato bi se morale organizacije zavedati njenih značilnosti ter izbrati ustrezen pristop k privzemanju MPP.

Ključne besede: management poslovnih procesov (MPP), privzemanje MPP, uspešnost privzemanja MPP, organizacijska kultura, pristop k privzemanju MPP.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

1.1 Description of the problem

Business processes are a core part of every organization. Organizations should therefore optimise and efficiently manage their business processes in order to maintain their competitive advantage and successfully lead their business operations in a highly competitive environment. For many organizations, Business Process Management (BPM) is one of the most important topics (Jeston & Nelis, 2006; Neubauer, 2009). It is a concept that can, if successfully adopted, bring significant benefits to the organization, such as a better understanding of its business processes, greater control, better business performance (Škrinjar, Bosilj-Vukšić & Indihar Štemberger, 2008) and an agile adaptation to changing business requirements (Neubauer, 2009).

BPM is defined as an approach to managing an organization that takes a process view (de Bruin & Doebeli, 2010) and requires a series of aspects to be considered for its successful adoption (Rosemann & vom Brocke, 2010). It depends on strategic and operational elements, the use of tools and techniques, the involvement of people and focuses on effectively satisfying customer requirements (Zairi, 1997). However, the adoption of BPM, i.e., *the use and deployment of any BPM concepts in organizations* (Reijers, van Wijk, Mutschler & Leurs, 2010), is a very complex and time-consuming process that requires a lot of effort, time, resources and discipline. Consequently, many BPM initiatives are unsuccessful in practice (Trkman, 2010) and there are problems with the adoption and justifying the benefits to business (Grisdale & Seymour, 2011).

The mixed findings concerning organizations' success in adopting BPM poses the question as to which organizations are engaging with BPM practices, and which factors can contribute to BPM adoption success. Since BPM is a multidisciplinary concept, its success depends on different factors such as strategic alignment, leadership, project management, performance measurement, methodology, people, communication, information technology, and culture (Bandara, Alibabaei & Aghdasi, 2009). In particular, the importance of an organizational culture that is conducive to BPM practices is frequently referred to in the literature (e.g. vom Brocke & Sinnl, 2011; Schmiedel, vom Brocke & Recker, 2013; Kohlbacher, Gruenwald & Kreuzer, 2011). Schmiedel et al. (2013) describe a BPM culture as "a facet of organizational culture which consists of a certain set of values that are directly supportive of BPM objectives, i.e. efficient and effective processes". Hence, it is argued that the successful adoption of BPM relies on the prevailing organizational culture (Alibabaei, Aghdasi, Zarei & Stewart, 2010; Bandara et al., 2009; vom Brocke & Schmiedel, 2011).

Organizational culture is composed of values, beliefs, attitudes and behaviours (Hofstede, 1993; Schein, 1996). It provides unwritten and often unspoken guidelines for how to get along in the organization and conveys a sense of identity to employees (Cameron & Quinn, 2006). Organizational culture is an emerging theme that is highly relevant to both academia and

practitioners in management, business and IS (Reiter, Stewart & Bruce, 2010) and is considered very important when trying to improve organizational performance by changing business processes (Škerlavaj, Indihar Štemberger, Škrinjar & Dimovski, 2007; Clemons, Thatcher & Row, 1995; Guimaraes, 1997; Terziovski, Fitzpatrick & O'Neil, 2003).

BPM researchers agree there should be a fit between BPM and the organizational culture (e.g. vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011) and that its characteristics should be seen as predecessors for the success of BPM initiatives (Bandara et al., 2009). Many authors also refer to the need to change the organizational culture in order to fit BPM initiatives and for BPM to be successfully adopted (vom Brocke & Sinnl, 2011; Tumbas & Schmiedel, 2013). However, organizational culture cannot be changed within a short period of time (Grugulis & Wilkinson, 2002) and changing it is very difficult (Lee & Dale, 1998). Therefore, instead of trying to change the organizational culture to fit BPM initiatives, "the approach to BPM should fit the culture of the organization" (Armistead, Prichard & Machin, 1999). Based on this, it could be concluded that the approach to BPM needs to be adapted to suit the existing organizational culture and the goals of the organization. Managers should be aware of the organizational culture and ensure the cultural characteristics are compatible with the BPM initiative (Alibabaei et al., 2010).

1.2 Motivation

Despite the well-established acknowledgement of organizational culture's impact on the success of BPM adoption (de Bruin, 2009), the topic of culture in BPM is still widely under-researched (vom Brocke & Sinnl, 2011). While culture is mentioned in the literature as one of the most important success factors in BPM adoption, it has not been systematically investigated. There is a gap in the empirical literature examining the association between organizational culture and the adoption of BPM practices. Moreover, the research still lacks a clear understanding of what constitutes BPM adoption and how BPM adoption success can be measured. The concepts "BPM adoption" and "success of BPM adoption" have not yet been clearly defined in the literature; they can therefore be understood in different ways. Since the literature offers only general definitions of BPM success, such as *continuously meeting pre-determined goals* (Trkman, 2010) and *sufficiently satisfying intended goals of the BPM initiative* (Bandara et al., 2009), it is difficult to directly measure the success of BPM adoption.

While there is a consensus that organizational culture is critical in any change initiative (Rosemann & vom Brocke, 2010; Harmon, 2010; Spanyi, 2003; vom Brocke & Schmiedel, 2011), no such consensus exists as to what type of organizational culture best supports BPM adoption. According to Prajogo and McDermott (2005), who studied the relationships between various types of cultures and certain TQM practices, different types of culture support different subsets of TQM practices. The findings from the literature also indicate that an organization can implement different, even opposite culture types in harmony (Škerlavaj et al., 2007). Schmiedel et al. (2013) find that "while an existing organizational culture may be

primarily determined by one of the four culture quadrants of the Competing Values Framework (CVF); the other three can also be present, complementing this predominant culture focus". This opened up the question of which combination of culture types is most appropriate when adopting BPM.

BPM adoption is likely to produce widespread organizational changes because of its scope. If BPM adoption conflicts with the existing organizational culture, the implementation of changes will be resisted (Alibabaei et al., 2010). Therefore, there should be a fit between BPM and the organizational culture (vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011). Armistead and Machin (1997) point out that the approach to BPM needs to fit initially with the culture of the organization and that culture drives the appropriate initial approach to BPM adoption. Thus, the approach to BPM needs to be adapted to suit the existing organizational culture and the goals of the organization. An important question here is how to approach BPM adoption in an organization depending on its organizational culture. Awareness of the role organizational culture plays in the success of BPM is essential (vom Brocke & Sinnl, 2011).

1.3 Purpose and goals

The purpose of the dissertation is to improve the understanding and provide a framework for the relationship between BPM adoption and different organizational culture types. The dissertation aims to explore how BPM adoption success is associated with organizational culture or different types of organizational culture. In particular, how the success of BPM adoption (measured with two proxies: the Business Process Orientation Maturity model by McCormack and Johnson (2001) and the Process Performance Index by the Rummler-Brache Group (2004)) varies between different types of organizational culture (i.e. the four culture types in Cameron and Quinn's (2006) Organizational Culture Assessment Instrument (OCAI): Clan, Adhocracy, Market and Hierarchy), and which approach to BPM adoption is appropriate given the existing organizational culture in the organization.

To realise this purpose, the dissertation has the following goals:

- to provide a clear definition of the key concepts, namely BPM adoption, BPM adoption success, and organizational culture;
- to give an overview of the main research findings on BPM adoption in connection to different organizational culture types, based on a structured literature review;
- to develop a conceptual framework that shows the relationship between organizational culture, BPM adoption success and the approach to BPM adoption, building on the structured literature review;
- to examine the association between the four culture types in Cameron and Quinn's (2006) OCAI (Clan, Adhocracy, Market and Hierarchy) and success in BPM adoption (using McCormack and Johnson's (2001) BPM maturity model and the Rummler-Brache

Group's (2004) Process Performance Index), based on data gathered from a survey analysis;

- to identify which organizational culture types are more favourable and which are less favourable for BPM adoption, based on data gathered from the survey analysis; and
- to identify how BPM adoption can be approached in organizations with a specific type of organizational culture or combination of organizational culture types, based on exploratory case studies.

1.4 Research questions

The dissertation addresses three research questions. The first research question is addressed in the third section of the dissertation, which provides a structured literature review investigating the relationship between BPM adoption and various organizational culture types. The study reviews the main research findings on BPM adoption in connection to organizational culture, specifically with regard to the different types of organizational culture defined by Cameron and Quinn (2006). The research question this study aims to answer is – *RQ1: What is the current state of research on BPM adoption in connection to organizational culture?*

Following the literature review is an empirical analysis of the correlation of organizational culture and success of BPM adoption, which is presented in the fourth section of the dissertation. The aim of this study is to empirically investigate whether organizations with varying organizational culture types have different degrees of success adopting BPM and to identify which organizational culture types are more favourable and which less for BPM adoption (which organizations, depending on their dominant culture type, are more or less successful in adopting BPM). The second research question of the dissertation is therefore – *RQ2: How does the success of BPM adoption vary between different types of organizational culture?*

The fifth and sixth sections of the dissertation present two case studies focusing on the approach to BPM adoption under specific organizational culture types, namely the Hierarchy culture and Hierarchy-Market culture. This research is based on observations in previous studies which propose that the approach to BPM adoption needs to fit the culture of the organization and that culture drives the appropriate initial approach to BPM adoption (Armistead & Machin, 1997). It was also found in previous studies that organizational culture cannot be changed within a short period of time (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004) and that it is difficult to change (Lee & Dale, 1998; Alibabaei et al., 2010). Thus, it is proposed that the approach to BPM adoption should be adjusted to suit the existing organizational culture. More precisely, the research question the two case studies seek to answer is – *RQ3: Which approach to BPM adoption might be appropriate in organizations with a specific type of organizational culture or combination of organizational culture types?*

1.5 Description of the research methods and data

The dissertation is a collection of connected articles. It starts with an overview of the existing literature to provide a basis for the research on BPM adoption in relation to different organizational cultures. Then, a quantitative empirical analysis is carried out based on data collected through a survey, supporting the established hypotheses. This is followed by exploratory research including two case studies dealing with approaches to BPM adoption according to different organizational cultures. All of these phases help answer the different research questions and achieve the dissertation's goals.

First, a structured literature review is conducted to provide insights into the relationship between BPM adoption and organizational culture, specifically the different types of organizational culture defined by Cameron and Quinn (2006). In order to provide a comprehensive review of relevant literature, the focus is on papers in scientific, peer-reviewed journals, thus excluding papers from other sources (e.g. conference proceedings or gray literature). Based on the literature review, the key concepts are defined (i.e. BPM adoption, BPM adoption success, and organizational culture) and a framework that connects organizational culture with BPM adoption success through the approach towards BPM adoption is developed. The framework is then used as a starting point for further research on the topic.

Second, empirical research is conducted based on a survey design in order to investigate correlations between organizational culture types and the success of BPM adoption. The questionnaire consists of questions for measuring the organizational culture, questions for measuring BPM adoption success and questions for assessing the respondents' knowledge of and interest in BPM. For assessing the organizational culture the Organizational Culture Assessment Instrument (OCAI) is used, which was developed by Cameron and Quinn and is a validated research method for examining organizational culture (Cameron & Quinn, 2006). The OCAI is based on the CVF, which consists of four competing values that correspond with four types of organizational culture (Clan culture, Adhocracy culture, Market culture and Hierarchy culture). Every organization has its own mix of the four types of organizational culture (Cameron & Quinn, 2006).

For measuring the success of BPM adoption, two proxies are used due to the absence of an instrument. This approach is in line with the studies by Škrinjar and Trkman (2013), Thompson, Seymour and O'Donovan (2009) and Dabaghkashani, Hajiheydari and Haghighinasab (2012), who also use proxies to measure the success of BPM adoption. For the purpose of the study, the selected proxies for measuring success in adopting BPM are the Business Process Orientation maturity model (BPO) developed by McCormack and Johnson (2001), and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004). Both measures have been used in previous studies and are validated research instruments. Škrinjar and Trkman (2013) argue that the adoption of BPM directly affects business process orientation (BPO). As an organization adopts BPM, it becomes more

process-oriented and therefore the BPO can be used to measure the success of BPM (Škrinjar & Trkman, 2013). In addition to the BPO maturity model, the PPI was used, which serves as an overall measure of the process management environment in an organization and suggests how well an organization is managing its key business processes (Rummler-Brache Group, 2004). For BPM adoption to be successful, the organization should have a high level of BPO and PPI. In other words, the higher the level of BPO and process performance, the more successful is the adoption of BPM. The survey instrument was pre-tested using several IS professors and IS practitioners to ensure that the questionnaire is understandable.

The survey was conducted in Slovenia in organizations with more than 50 employees from the public and private sectors. It was decided to conduct the survey among medium- to large-sized organizations since the BPM practices of small organizations are likely to be relatively unsophisticated or highly variable (Yong & Pheng, 2008). A mailing list of all organizations that met the criteria was compiled from the online business directory *bizi.si*. Those organizations that were in bankruptcy were eliminated from the list of sample participants so the final mailing list consisted of 2,180 organizations. An online survey was prepared as well as printed versions of the questionnaire in Slovenian. The printed versions were sent to all 2,180 organizations by post, together with a cover letter and a smaller envelope for return mail. The cover letter provided the link to the online survey, explained its purpose and who the intended addressee was, while stating the approximate time needed to complete the survey (20 minutes). Further, all participants were guaranteed complete anonymity.

The questionnaire was addressed to top managers and (where applicable) process owners, who should have the best understanding of BPM adoption in their company. The data collection period lasted from the beginning of March to the end of May 2013. Out of the 2,180 questionnaires sent out, a total of 159 survey responses were received (47 online and 112 paper-based responses), yielding a 7.3% response rate. The results of the survey were analysed using IBM SPSS Statistics 20.

The OCAI score was calculated for each organization. Then, the data were analysed using two different approaches: (1) the group comparison approach, and (2) correlation analysis. While the group comparison approach is popular (Aier, 2012) and has been used by many studies (e.g. Bradley, Pridmore & Byrd, 2006), there has been some criticism of allocating a case to one cultural group based on the case's dominant culture. Namely, this approach reduces the available data to just the dominant type of culture and thus ignores that an organization typically has some score for all four types of culture (Aier, 2012). However, group comparison is useful for identifying which organizations, depending on their dominant culture type, are more or less successful in adopting BPM.

For the group comparison, I categorized the organizations into four groups depending on their dominant culture type, and searched for statistically significant differences between them. The Kruskal-Wallis test was used to analyse the differences in BPM adoption success among the four culture groups. The data were further analysed using correlation analysis. For this

analysis, I followed Aier (2012) and measured each of the four alternatives (i.e. each of the four culture types) with separate variables, instead of splitting the dataset into four culture groups. Pearson's Correlation was calculated to test for correlations among the four culture types and BPM adoption success. This study was later repeated in Croatia.

The survey analysis is followed by exploratory research that includes two case studies. Having identified Hierarchy culture as the least favourable for BPM adoption in the survey analysis, two case studies researching approaches to the adoption of BPM under the Hierarchy and Hierarchy-Market cultures are conducted. Ideally, both case studies would be conducted in organizations with dominant Hierarchy culture to investigate which approach to BPM adoption might be appropriate in organizations with less favourable organizational culture for adopting BPM. The idea was to show that even organizations with dominant Hierarchy culture can achieve BPM adoption success if they approach their BPM initiatives in an appropriate way. Choosing an organization with a combination of Hierarchy and Market culture for the second case study was therefore based on a convenience sampling strategy. Both qualitative and quantitative data were collected. The primary sources for the data collection were in-depth interviews, a review of case documentation about the BPM initiative (e.g. project reports, process models, process documentation) and an online survey on organizational culture (OCAI) and BPM adoption success (BPO and PPI). An interview guideline was developed with the result that all interviews followed the same protocol. In the interviews, further follow-up inquiries were allowed in order to gain a deeper understanding of the subject matter or to clarify individual responses. The interviews took place in September and October 2013 and were conducted in Slovenian. The online survey on organizational culture was translated into Slovenian and sent by e-mail to randomly selected employees at different levels in the two companies, including CIOs, process owners, department leaders, executives and other employees. All participants were guaranteed complete anonymity. In addition, an online survey on BPM adoption success was prepared, which was addressed to the Head of the BPM office (the BPM project leader), who should have the best understanding of BPM adoption in the company. The data from the online surveys were collected in September 2013.

The interviewees were selected based on their role in the organization and their role in the BPM initiative. All interviews were recorded and transcribed afterwards. Data from the interviews and from the project documentation were coded manually, using Atlas.ti as a data management tool. I followed the two-step coding process beginning with basic coding in order to distinguish overall themes, followed by a more in-depth, interpretive coding in which more specific trends and patterns were interpreted (Hay, 2005). The data obtained from the online surveys were analysed according to the measurement models using MS Excel.

1.6 Intended contribution to science

This dissertation intends to make a significant contribution to both research and practice. First, by clearly defining the concepts "BPM adoption" and "success of BPM adoption" it

aims to provide a better understanding of what constitutes the adoption of BPM and how BPM adoption success can be measured.

Second, the dissertation seeks to improve understanding of the relationship between organizational culture, approaches to BPM adoption and BPM adoption success. It proposes a conceptual framework for this relationship based on a structured literature review.

Third, the dissertation addresses the gap in the empirical literature examining the association between organizational culture and success in BPM adoption. A quantitative research study is conducted to investigate how the success of BPM adoption varies between different types of organizational culture, and which organizational culture types are more or less favourable for BPM adoption. The aim is to show statistically whether there is a significant connection between BPM adoption success and organizational culture, thus contributing to cultural studies in IS and informing research on BPM.

Another important question the dissertation addresses is how to approach BPM adoption in an organization depending on its organizational culture. The dissertation seeks to identify how BPM adoption can be approached (which specific measures seem to support BPM adoption success) in organizations with a specific type of organizational culture or combination of organizational culture types, namely the Hierarchy culture and Hierarchy-Market culture.

The findings of the dissertation research may help organizations in preparing their BPM initiative by including a culture analysis in the preparatory phase of their BPM adoption project. This is especially important for organizations with organizational culture types that are less supportive of BPM adoption. The dissertation aims to extend the body of knowledge regarding cultural issues in BPM, and thereby contribute to the more successful adoption of BPM.

1.7 Structure of the doctoral dissertation

This dissertation is structured as a collection of four papers (chapters), which are logically connected and build on one another. Each chapter is a standalone document, but there is a clear common thread running through all of them. Therefore, each section has its own introduction, background, methodology, results, discussion and conclusion.

The dissertation starts with the introduction in which the research topic is shortly described while presenting the motivation, purpose and goals, establishing the research questions, describing the research methods, and briefly discussing the intended contributions. Following the introduction, the key concepts used throughout the dissertation are clearly defined.

The third section of the dissertation provides a comprehensive literature review investigating the relationship between BPM adoption and different organizational culture types. The study reviews the main research findings on BPM adoption in connection to organizational culture, specifically with regard to the different types of organizational culture defined by Cameron

and Quinn (2006). Based on the structured literature review, a framework for the relationship between organizational culture, the approach to BPM adoption, and the success of BPM adoption is proposed, which then serves as a starting point for further empirical research on this topic.

The fourth section presents an empirical analysis of the correlation between organizational culture and BPM adoption success based on the survey data. The purpose of this section is to empirically investigate whether organizations with different organizational culture types have varying levels of success in adopting BPM and to identify which organizational culture types are more favourable and which less for BPM adoption (which organizations, depending on their dominant culture type, are more or less successful in adopting BPM).

The fifth and sixth sections contain two case studies on the approach to BPM adoption according to specific organizational culture types identified in the survey research as being less favourable to the adoption of BPM (i.e. Hierarchy culture and Hierarchy-Market culture). The aim of these case studies is to find out which approach to BPM adoption might be appropriate for the existing organizational cultures.

The seventh part of the dissertation offers a general discussion and summarises the main research findings and contributions, together with the limitations and possibilities for future research. This is followed by a short conclusion (Section 8), a reference section (Section 9) and appendices (Section 10).

2 KEY CONCEPTS

2.1 Business Process Management

Business Process Management (BPM) has been around for more than 20 years; yet understanding of the BPM concept still varies amongst academics and practitioners (Reiter, Stewart, Bruce, Bandara & Rosemann, 2010). The analysis of different BPM definitions reveals that the focus is often on analysing and improving business processes (Rosemann & de Bruin, 2005a) and that 'process thinking' has become the focal point (Grover, Kettinger & Teng, 2000).

De Bruin and Doebeli (2010) find three common interpretations of BPM, namely:

- BPM as a software solution to automate and manage processes;
- BPM as a lifecycle approach to managing and improving processes; and
- BPM as an approach to managing an organization that takes a process view.

Since BPM means different things to different people (Wolf & Harmon, 2012), it is very important to clearly define how BPM is understood in this dissertation. In this thesis, the second and third views on BPM as found by de Bruin and Doebeli (2010) are combined. BPM is understood as a management approach that takes a process view (de Bruin & Doebeli, 2010) and is dependent on strategic and operational elements, the use of tools and techniques, the involvement of people and focuses on effectively satisfying customer requirements (Zairi, 1997). It is "the achievement of an organization's objectives through the improvement, management and control of essential business processes" (Jeston & Nelis, 2006) and a holistic management discipline that requires considering a series of aspects for its successful adoption (Rosemann & vom Brocke, 2010). Taking a process approach means adopting the customer's point of view (Davenport, 1994) and represents a way in which organizations are managed (Pritchard & Armistead, 1999).

If successfully adopted, BPM can bring significant benefits to an organization such as a greater understanding of its business processes, more control, better business performance (Škrinjar et al., 2008) and an agile adaptation to changing business requirements (Neubauer, 2009). However, adopting BPM is a very complex process that requires a lot of effort, time, resources and discipline.

2.2 Business Process Management adoption[1]

The term "BPM adoption" has not yet been clearly defined in the literature; therefore, it can be understood in various ways. For the purpose of this dissertation, BPM adoption is defined

[1] This section of the dissertation forms part of a paper presented at the international conference ECIS 2014, as part of the works published in conference proceedings, namely Malinova, M., Hribar, B., & Mendling, J. (2014). A framework for assessing BPM success, *In Proceedings of the 22nd European Conference on Information Systems (ECIS 2014), Tel Aviv, Israel*.

as the use and deployment of any BPM concepts in organizations (Reijers et al., 2010). These concepts range from governance structures, role definitions and performance indicators to modelling tools and redesign techniques (Dumas, La Rosa, Mendling & Reijers, 2013). Because of its scope, BPM adoption is likely to trigger widespread organizational changes.

To be able to sustain continuous process improvement, besides focusing on the processes, organizations should also be aware of all factors that could facilitate or hinder the process improvement. Thus, a BPM initiative should be approached from a holistic perspective, including elements such as strategic alignment, governance, methods, information technology, people and culture (Rosemann & vom Brocke, 2010). Each of these elements comprises a set of activities that needs to be considered while adopting BPM.

It is known that BPM can bring significant benefits to organizations (Bandara et al., 2009), for example process transparency, process standardisation, employee communication, among many others (Jeston & Nelis, 2006). Thus, organizations typically adopt the BPM approach for all or a mix of these reasons (Trkman, 2010). Reijers et al. (2010) categorise the objectives of BPM in two groups. They distinguish between *business objectives* such as improving business performance, and *technical objectives* such as an ERP implementation. However, regardless of which group of goals an organization pursues, they should be aligned with the organization's strategy (Rosemann & vom Brocke, 2010; Hung, 2006; Lee & Dale, 1998). Accordingly, depending on the strategic direction, the steps undertaken for the consequent BPM adoption should lead to the initially set goals being achieved. For example, organizations that follow the strategy of operational excellence might have goals like increasing control over the company's business operations, reducing time or cutting costs. On the other hand, those that strive for customer intimacy would set their BPM goals to meeting the demands of customers, or product leadership will most likely include improving process quality, the ability to respond to emerging opportunities, etc. Therefore, depending on the goals, organizations need to conduct activities stemming from all or part of the elements that comprise a BPM initiative.

2.2.1 Business Process Management lifecycle

The *BPM lifecycle* describes the different phases of managing business processes in an idealised and circular way. A number of BPM lifecycle models have been proposed.

For the purpose of this study, seven lifecycle models developed by Dumas et al. (2013), Becker, Kugeler and Rosemann (2011), Jeston and Nelis (2006), Kettinger, Teng and Guha (1997), Harrington and Harrington (1995), Rosemann and vom Brocke (2010) and Davenport (1993) are closely examined. All of these models are comprehensive and distinguish between several phases that a BPM initiative can go through. Each phase of the BPM lifecycle consists of multiple actions that need to be completed before progressing to the next phase. Although all seven models examined serve the same purpose, that is to allow for continuous process improvement, the phases they entail differ partly in their details. In addition, the number of actions within each phase varies slightly. While some lifecycles include more specific actions

(e.g. Jeston & Nelis, 2006), others tend to stick to a more abstract level (Kettinger et al., 1997). There are also differences in emphasis in particular phases. For example, Davenport (1993) highlights the importance of culture, which is considered more as a "soft" factor, whereas Jeston and Nelis (2006) and Becker et al. (2011) focus more on strategy and governance. Actions concerning governance are also pointed out in Harrington and Harrington (1995) and Kettinger et al. (1997). Despite certain differences, all of these lifecycles are fundamentally similar and see business processes as the objects that are continuously improved (Reijers et al., 2010).

Further, all of the examined BPM lifecycles include actions that are intertwined with the six core elements of BPM as defined by Rosemann and vom Brocke (2010). However, beyond the BPM lifecycle these elements show an even broader picture of BPM adoption. They point to everything that should be considered when starting a BPM initiative. In order to systematically organize the various elements that play a role while adopting BPM, a distinction is made between the operational part of BPM, namely the BPM lifecycle comprising six phases, and the remaining BPM elements which have more of a strategic influence on the overall BPM initiative.

The operational part of BPM relates to executing the BPM lifecycle phases. It focuses on processes and it is where all changes happen (Dumas et al., 2013). The first phase of *process identification* is concerned with setting up the BPM initiative and establishing its infrastructure and mission. The biggest outcome of this phase is a process landscape. This landscape identifies the major processes in the company, describes their relationships, and the criteria for prioritising them. Entering the cycle shifts the focus from the overall portfolio of processes to a single process. The *process discovery* phase is concerned with precisely describing a business process in its current state. The result is a so-called As-Is process model. *Process analysis* applies analytical techniques in order to determine any weaknesses of the As-Is process and their impact. *Process redesign* addresses these weaknesses and comes up with a reworked blueprint of the process. The result is a so-called To-Be process model. This model is then considered for *process implementation*, which can involve information system implementation as much as measures to facilitate organizational change. Once the redesigned process is up and running, the *process monitoring and controlling* phase continuously collects and analyses the execution in terms of its performance and conformance with regulations. Such insight, as well as changes in the business environment and the company's goals, can trigger a new iteration of the BPM lifecycle. In practice, the phases are hardly carried out in a purely sequential way. Moreover, the circle is not always closed, e.g. when a company decides only to document its processes without considering redesigning them.

2.2.2 Initial Business Process Management elements

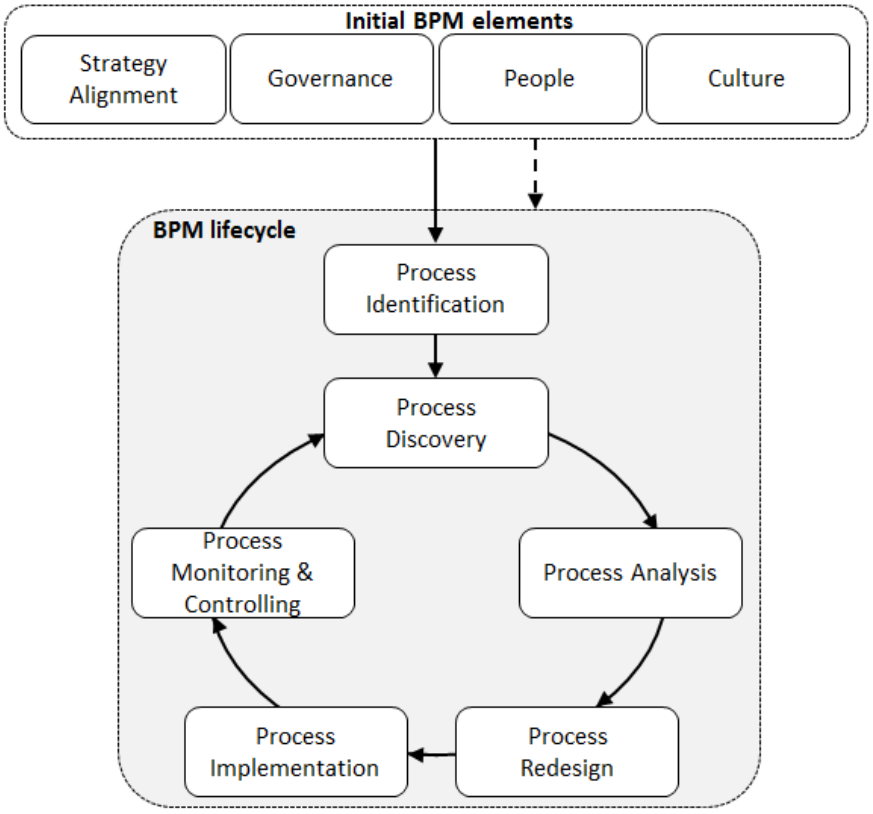
Beyond the phases of the BPM lifecycle, organizations that strive for BPM success need to understand BPM from a holistic perspective. Thus, prior to commencing the phases of the

BPM lifecycle, an organization needs to consider all factors that could influence the BPM adoption and its subsequent success, such as governance, people, culture, etc. They have mainly been discussed in research on the success and failure factors of BPM (e.g. Trkman, 2010; Rosemann, 2006; Ohtonen & Lainema, 2011; Burlton, 2011). The main factors influencing BPM adoption in an organization are addressed in the six core elements of BPM proposed by Rosemann and vom Brocke (2010). Thus, they are vital for each BPM initiative to consider, along with the BPM lifecycle. Two of the core elements identified by Rosemann and vom Brocke (2010) (i.e. methods and information technology) are already incorporated in all phases of the BPM lifecycle. Hence, only the remaining four elements (strategy alignment, governance, people and culture) are treated as these are complementary to the BPM lifecycle.

Strategy alignment indicates that the BPM initiative should be closely linked to the organizational strategy. This means that processes have to be designed, executed, managed and measured according to the company's defined strategy (Rosemann & vom Brocke, 2010). To increase the likelihood of successful BPM adoption, organizations need a strategy-driven process improvement plan, enterprise process architecture, a clear and shared understanding of the process outputs and related Key Performance Indicators (KPIs), and have to evaluate the actual priorities of key customers and other stakeholders (Rosemann & vom Brocke, 2010). *Governance* concerns establishing transparency by clearly defining and consistently carrying out the decision-making processes. The actions conducted by this element are to clearly specify the process roles and responsibilities, collect the required process metrics and link them to performance criteria, define and document process management standards, and maintain the quality and currency of the process management principles through process management controls (Rosemann & vom Brocke, 2010).

People are a core part of every organization. For BPM adoption to be successful, people need to understand the BPM concept and transform their way of thinking about practices from a traditional functional style to a new process model (Spanyi, 2003). People in processes need to have sufficient process skills, expertise and process management knowledge (Rosemann & vom Brocke, 2010). Organizations should facilitate process education and learning, process collaboration and communication, and ensure there are process management leaders (Rosemann & vom Brocke, 2010). *Culture* is composed of values, beliefs, attitudes and behaviours (Hofstede, 1993; Schein, 2010) and provides unwritten and often unspoken guidelines for how to get along in an organization (Cameron & Quinn, 2006). It is about creating a facilitating environment that complements the various BPM initiatives (Rosemann & vom Brocke, 2010). Important dimensions of culture supportive of BPM adoption are accepting change and readiness for change, process values and beliefs (including broad process thinking and valuing of processes), process attitudes and behaviour, leadership attention and commitment to process management, and process management social networks, such as the existence of BPM communities (Rosemann & vom Brocke, 2010; Rosemann & de Bruin, 2005b). Figure 1 illustrates the BPM adoption framework, which includes the BPM lifecycle with its six phases and the four initial BPM elements.

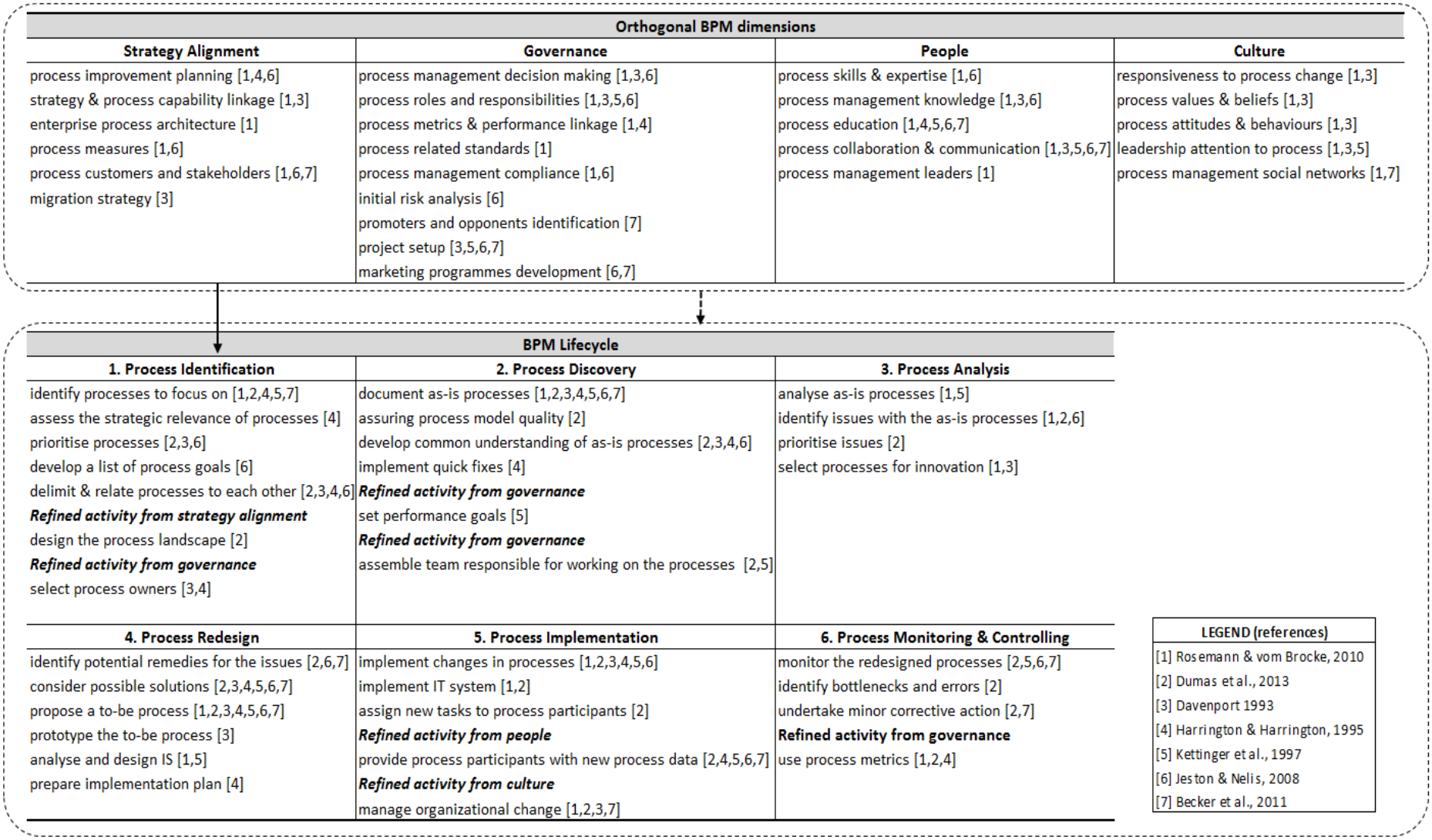
Figure 1. Business Process Management adoption framework



2.2.3 Actions of the Business Process Management adoption framework

In this section, all potential actions are identified, which are related to each of the ten elements from the BPM framework presented in Figure 1. To develop an extensive list of actions to be conducted relative to each element, the seven studies (Davenport, 1993; Harrington & Harrington, 1995; Kettinger et al., 1997; Jeston & Nelis, 2006; Becker et al., 2011; Rosemann & vom Brocke, 2010; Dumas et al., 2013) are referred to. These studies are chosen because the BPM methodology suggested by some of these studies is considered integral and state of the art (e.g. Davenport, 1993; Kettinger et al., 1997), while the methodology proposed by the rest is mostly based on experience from practice (e.g. Jeston & Nelis, 2006; Rosemann & vom Brocke, 2010). In addition, they all take a holistic BPM approach. As a basis for the BPM lifecycle, the six phases described by Dumas et al. (2013) are used, as this is one of the most recent and consolidated works. To ensure the actions proposed by Dumas et al. (2013) are exhaustive, the actions proposed by the other studies were also analysed. Thus, whenever an action was found in any of the six additional studies that is not already included in the actions stated by Dumas et al. (2013), it was appropriately included in the respective phase. This was done for all six phases of the BPM lifecycle. Similarly, a list of actions for the four additional core BPM elements was derived. The actions defined by Rosemann and vom Brocke (2010) were taken as a basis. Where actions proposed by other sources were not already included in the base list, they were added accordingly. As a result, Figure 2 is derived, which shows the list of actions to be done within each element. The numbers next to each action represent the source that also considers this as an action.

Figure 2. Actions of the Business Process Management adoption framework



Orthogonal BPM dimensions

Strategy Alignment	Governance	People	Culture
process improvement planning [1,4,6]	process management decision making [1,3,6]	process skills & expertise [1,6]	responsiveness to process change [1,3]
strategy & process capability linkage [1,3]	process roles and responsibilities [1,3,5,6]	process management knowledge [1,3,6]	process values & beliefs [1,3]
enterprise process architecture [1]	process metrics & performance linkage [1,4]	process education [1,4,5,6,7]	process attitudes & behaviours [1,3]
process measures [1,6]	process related standards [1]	process collaboration & communication [1,3,5,6,7]	leadership attention to process [1,3,5]
process customers and stakeholders [1,6,7]	process management compliance [1,6]	process management leaders [1]	process management social networks [1,7]
migration strategy [3]	initial risk analysis [6]		
	promoters and opponents identification [7]		
	project setup [3,5,6,7]		
	marketing programmes development [6,7]		

BPM Lifecycle

1. Process Identification	2. Process Discovery	3. Process Analysis
identify processes to focus on [1,2,4,5,7]	document as-is processes [1,2,3,4,5,6,7]	analyse as-is processes [1,5]
assess the strategic relevance of processes [4]	assuring process model quality [2]	identify issues with the as-is processes [1,2,6]
prioritise processes [2,3,6]	develop common understanding of as-is processes [2,3,4,6]	prioritise issues [2]
develop a list of process goals [6]	implement quick fixes [4]	select processes for innovation [1,3]
delimit & relate processes to each other [2,3,4,6]	***Refined activity from governance***	
Refined activity from strategy alignment	set performance goals [5]	
design the process landscape [2]	***Refined activity from governance***	
Refined activity from governance	assemble team responsible for working on the processes [2,5]	
select process owners [3,4]		

4. Process Redesign	5. Process Implementation	6. Process Monitoring & Controlling
identify potential remedies for the issues [2,6,7]	implement changes in processes [1,2,3,4,5,6]	monitor the redesigned processes [2,5,6,7]
consider possible solutions [2,3,4,5,6,7]	implement IT system [1,2]	identify bottlenecks and errors [2]
propose a to-be process [1,2,3,4,5,6,7]	assign new tasks to process participants [2]	undertake minor corrective action [2,7]
prototype the to-be process [3]	***Refined activity from people***	**Refined activity from governance**
analyse and design IS [1,5]	provide process participants with new process data [2,4,5,6,7]	use process metrics [1,2,4]
prepare implementation plan [4]	***Refined activity from culture***	
	manage organizational change [1,2,3,7]	

LEGEND (references)
[1] Rosemann & vom Brocke, 2010
[2] Dumas et al., 2013
[3] Davenport 1993
[4] Harrington & Harrington, 1995
[5] Kettinger et al., 1997
[6] Jeston & Nelis, 2008
[7] Becker et al., 2011

2.2.4 Relationship between the Business Process Management elements

Prior literature points to a holistic BPM framework that involves two main components, each consisting of ten elements. The first component is the BPM lifecycle, considered the more operational part of BPM where the focus is placed on processes. The second component involves the additional four elements (strategy alignment, governance, people and culture). These play an important role for the underlying success of BPM. Based on a careful examination of the seven sources and their proposed BPM frameworks, it was found that these two components are linked to each other. In particular, two underlying relationships can be seen (Figures 1 and 2). First, the relationship from the four initial BPM elements to the *process identification* phase indicates that the lifecycle can only start after the actions of all initial BPM elements have been conducted and defined, hence the term *initial*. Second, the relationship from the initial elements pointing to the BPM lifecycle as a whole indicates that everything done during the lifecycle should comply with the 'rules' defined by the four initial BPM elements. Thus, the initial BPM elements are conditions that must be considered prior to the BPM lifecycle and they also guard the performance of the BPM lifecycle. For example, a process that undergoes redesign should comply with the company's strategy that has already been defined by an action in *strategy alignment*.

Another finding concerning the actions of all ten elements is that, besides each unique action, four of the lifecycle phases (process identification, process discovery, process implementation, and process monitoring and controlling) also include refined activities. These activities are refined because they already form part of the initial BPM elements. However, for the purpose of a particular phase, only a portion of what has already been defined is needed. For example, the refined activity *design the process landscape* from the *process identification* phase is a partial activity from the BPM element *strategy alignment*, namely the action *enterprise process architecture*. It is partial because, in this context, the enterprise process architecture is designed to provide an overview of all processes of an organization and the relationships between them (Rosemann & vom Brocke, 2010). Whereas the process landscape only includes those processes identified in the first phase and will be the focus in all subsequent phases of the lifecycle (Dumas et al., 2013). Interestingly, the 'intellectual' lifecycle phases where everything could be done solely by members of the BPM group (process analysis and process redesign), hence without necessarily interacting with the external stakeholders, are phases that do not include any refined activities from any of the initial BPM elements. While the remaining four phases in which it is important to make decisions based on external factors, such as those defined by the four initial elements, are the phases that include refined activities (process identification, process discovery, process implementation, process monitoring and controlling).

2.3 Business Process Management adoption success

To be able to draw conclusions regarding the success of BPM adoption, it first needs to be defined. However, the literature only offers general definitions of BPM success, such as

continuously meeting pre-determined goals (Trkman, 2010) and *sufficiently satisfying intended goals of the BPM initiative* (Bandara et al., 2009). Not a single paper has defined BPM success in a comprehensive manner (Trkman, 2010).

The biggest reason BPM adoption success is so difficult to define and measure is that the BPM concept itself is very complex. First, BPM can refer to a diverging set of scenarios including the documentation and redesign of processes, the implementation of information systems or the alignment of systems with the company strategy (Davenport, 1993; Hammer & Champy, 1993; Kettinger et al., 1997; Dumas et al., 2013). Second, BPM can be pursued in order to increase performance, achieve conformance, facilitate understanding or stimulate the innovation of processes. Third, BPM covers a complex set of interrelated activities, often described as a lifecycle, such as identification, discovery, analysis, redesign, implementation and monitoring (Weske, 2012; Dumas et al., 2013). Fourth, BPM is embedded in the strategy, governance, methods, systems, people and culture of a company (Rosemann & vom Brocke, 2010). Any kind of BPM failure might be caused by an inappropriate combination of these elements or a failure in any of the sub-activities.

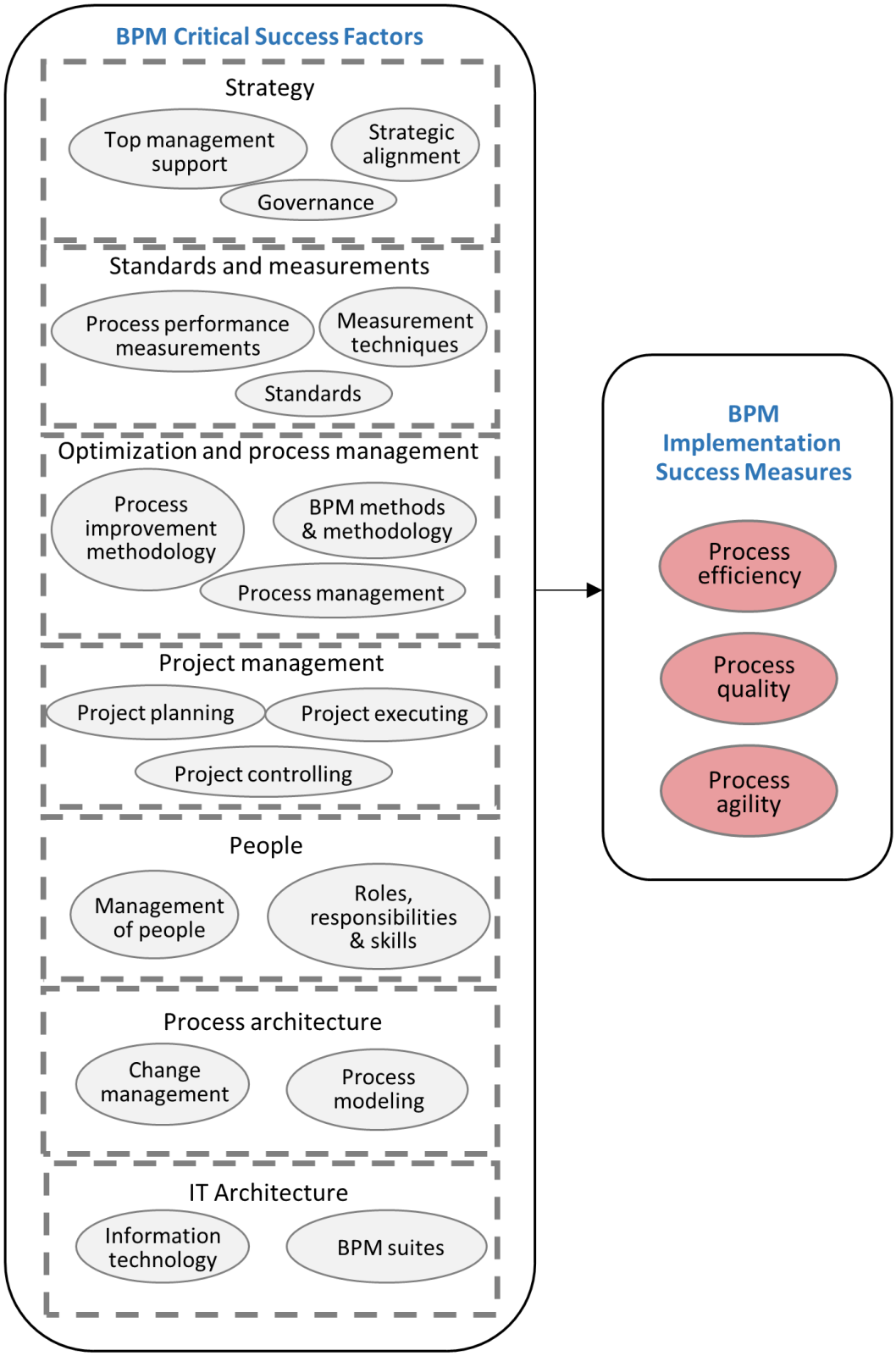
Since companies have specific reasons and goals for adopting BPM, it can be assumed that a company has a successful BPM initiative if it was able to reach all of its initially specified goals. Because there are various different types of goals, a company needs to carefully select the appropriate actions that will lead to their accomplishment. This means, before assessing the success of BPM within organizations, that one should first identify the underlying goals of companies for adopting BPM, the actions they conducted to achieve them, and whether they were able to obtain the desired effects.

However, while the above-mentioned approach seems to be the most comprehensive, it is not necessarily the most appropriate in terms of feasibility. It is very difficult to measure and quantitatively assess the goal accomplishment of a large number of various organizations, especially since their goals may vary widely. Thus, a different approach is taken in the dissertation and BPM success is operationalised in such a way that it can be quantitatively assessed.

2.3.1 Measuring success in Business Process Management adoption

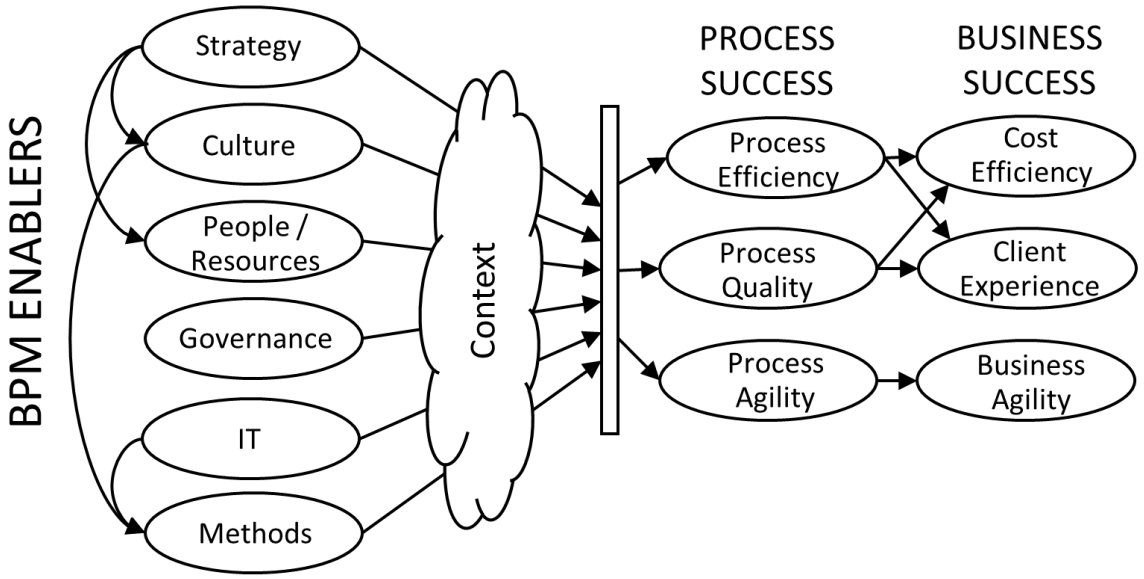
In this section, the operationalisation of BPM adoption success is defined. Similar to Škrinjar and Trkman (2013), Thompson et al. (2009) and Dabaghkashani et al. (2012), the use of proxies to measure success in BPM adoption is proposed. This approach has been used in several previous studies (Škrinjar & Trkman, 2013). For example, Thompson et al. (2009) use process efficiency, quality and agility as measures of process success, which leads to business success (Figure 4), and Dabaghkashani et al. (2012) employ the same measures as proxies for measuring the success of BPM implementation (Figure 3).

Figure 3. Success model for Business Process Management implementation



Source: Dabaghkashani, Hajiheydari & Haghighinasab, *A Success Model for Business Process Management Implementation*, 2012, p. 727.

Figure 4. The expanded Business Process Management success model



Source: Thompson, Seymour & O'Donovan, *Towards a BPM Success Model: An Analysis in South African Financial Services Organisations,* 2009, p. 11.

For the purpose of this study, the selected proxies for measuring the success of BPM adoption are the Business Process Orientation maturity model (BPO) developed by McCormack and Johnson (2001) and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004). Both measures have been used in previous studies and are validated research instruments. Škrinjar and Trkman (2013) argue that the adoption of BPM directly affects the business process orientation (BPO). As an organization adopts BPM, it becomes more process-oriented and, therefore, the BPO can be used to measure the success of BPM (Škrinjar & Trkman, 2013). In addition to the BPO maturity model, the PPI was used, which serves as an overall measure of the process management environment in an organization and suggests how well an organization is managing its key business processes (Rummler-Brache Group, 2004). For BPM adoption to be successful, the organization should have a high level of BPO and PPI. In other words, the higher the level of BPO and process performance, the more successful is the BPM adoption.

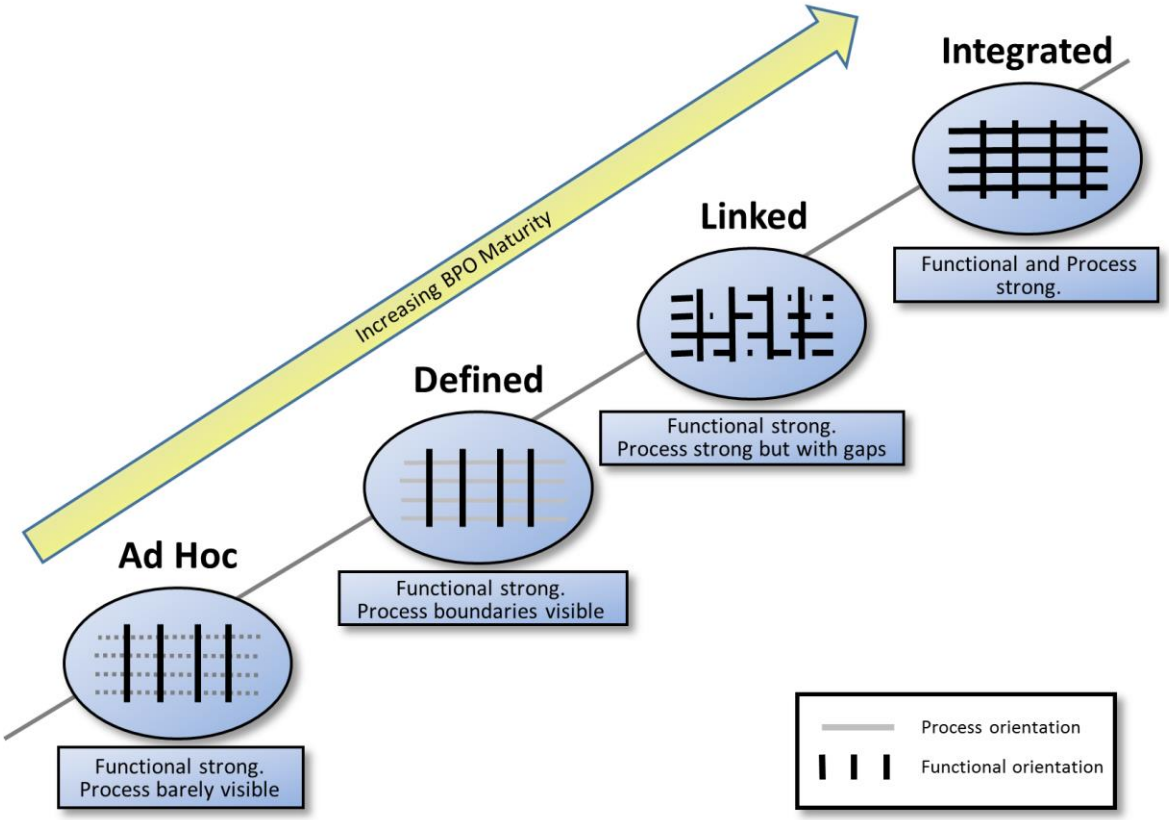
Although numerous BPM/BPO maturity models are available, these two models were selected based on several criteria. Both models have been empirically validated, are generic (i.e. used for business processes generally), produce quantitative data (can be easily statistically analysed and compared, independent of assessors' interpretations), and take account of all business processes in the organizations involved. In addition, the assessment does not take a lot of time, and the assessment questions and corresponding level calculation are fully known and publicly available free of charge. In the selection process, the freely available BPMM Smart-Selector tool was used, as developed by van Looy, De Backer and Poels (2012).

2.3.2 Business Process Orientation maturity model

The BPO maturity model by McCormack and Johnson (2001) consists of 12 survey questions arranged in 3 dimensions, labelled as *Process view*, *Process jobs*, and *Process management and measurement*. The respondent is asked to express his or her agreement with a question concerning the respondent's organization by rating the 12 items using a 5-point Likert scale, with 1 indicating complete disagreement with the relevance of the question and 5 indicating complete agreement. The respondent also has the option to choose the answer "cannot judge", marked with the letter "X" in the questionnaire.

The BPO maturity model is presented in Figure 5.

Figure 5. Business Process Orientation maturity model



Source: McCormack & Johnson, *Business Process Orientation: Gaining the E-business Competitive Advantage*, 2001, p. 53.

McCormack and Johnson (2001) define the four stages of BPO, namely:

1. **Ad Hoc:** The processes are unstructured and ill-defined. Process measures are not in place and the jobs and organizational structures are based upon traditional functions, not processes.
2. **Defined:** The basic processes are defined, documented, and available in flow diagrams. Changing the processes is a formal procedure. Jobs and organizational structures are still

basically functional; however, a process aspect is included. Representatives of functional areas meet on a regular basis to coordinate with each other.

3. **Linked:** This is the breakthrough level. Managers employ process management with strategic intent and results. Broad process jobs and structures are put in place outside the traditional functions and the "process owners" are introduced. Common process measures and goals are shared across the entire company.
4. **Integrated:** Cooperation is taken to the process level. Organizational structures and jobs are based on processes, which become equal or even superior to the traditional functions. Process measures and management systems are widely and frequently used in the organization.

2.3.3 Process Performance Index

The Process Performance Index (PPI) by the Rummler-Brache Group (2004) serves as an overall measure of the process management environment in an organization and suggests how well an organization is managing its key business processes (Rummler-Brache Group, 2004). The PPI comprises ten success factors, namely *Alignment with strategy*, *Holistic approach*, *Process awareness by management and employees*, *Portfolio of process management initiatives*, *Process improvement methodology*, *Process metrics*, *Customer focus*, *Process management*, *Information systems*, and *Change management*. The respondent is asked to rate their organization's performance on each success factor using a 5-point Likert scale, with 1 representing "Strongly Disagree" and 5 representing "Strongly Agree". An organization's ranking on this scale indicates its Business Process Management maturity (Rummler-Brache Group, 2004).

The Rummler-Brache Group (2004) defines the following three stages of process management maturity:

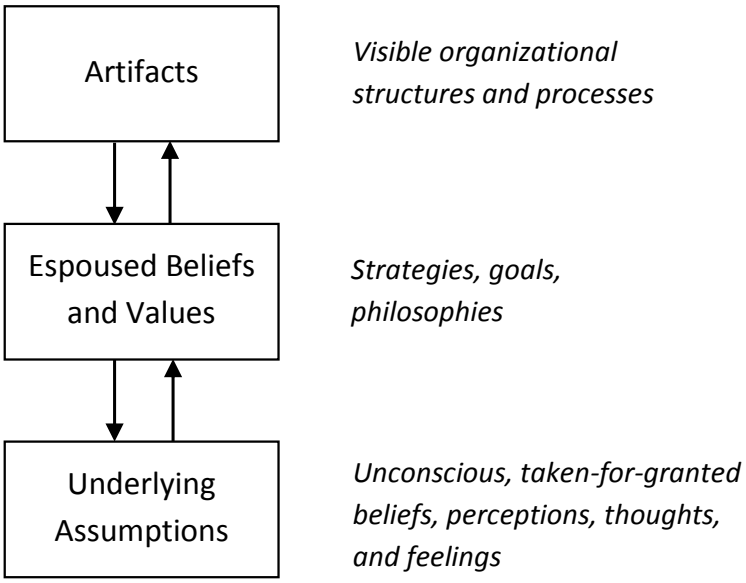
1. **Process Management Initiation:** This is the initial stage of process management, characterised by organizations that are beginners to process management; however, they desire to learn more about it. Organizations in this stage can often achieve significant benefits by focusing on their business processes in a deliberate and disciplined manner.
2. **Process Management Evolution:** Organizations in this stage of process management are 'process-aware' and often have instituted formal process improvement programmes. Process owners are usually identified and, in some cases, the organizations already use the process and performance metrics. However, companies in this stage have not yet reached their full potential regarding the process management.
3. **Process Management Mastery:** This is the final stage of process maturity. For organizations in this stage, BPM is a way of life. Process owners are rewarded based on the performance of their assigned processes. Performance metrics are used throughout the organization and focus on all three performance levels: organization, process and individual. Every employee in the organization understands the business processes and how they create value for their customers.

2.4 Organizational culture

There is no universally accepted definition of organizational culture (Rollinson & Broadfield, 2002) as the word "culture" is used to explain a variety of phenomena. Despite the plethora of definitions available, Schein's definition of organizational culture is one of the most frequently cited ones. Schein (1990) defines organizational culture as "a pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems". Organizational culture is composed of values, beliefs, attitudes and behaviours and distinguishes one group or category of people from another (Hofstede, 1993; Schein, 1996). It provides unwritten and often unspoken guidelines for how to get along in the organization and conveys a sense of identity to employees (Cameron & Quinn, 2006).

Every company has its own culture with its own values which become apparent, for example, in the actions of the employees. The culture develops along with the history of the company, and therefore represents the employees' behaviour. In analysing the culture of a particular group or organization, a distinction should be drawn between three fundamental levels at which culture manifests itself: observable artifacts, values, and basic underlying assumptions (Schein, 1990). Figure 6 presents the Organizational Culture Model.

Figure 6. Levels of culture



Source: Schein, *Organizational Culture and Leadership*, 2004, p. 26.

On the surface, culture manifests itself in so-called artifacts that are visible to everyone, such as the symbols of a company, its products, typical behaviour and rituals, the way of dressing,

or architecture. The values of a company can lie both on the surface and beneath it. It is therefore important to distinguish between espoused values that are visible, for example, in the mission statement or in publicly expressed strategies on one hand and invisible, lived values on the other. The subconscious part of culture below the surface accounts for the biggest part of culture. A company's implicit values, the way of verbal and nonverbal communication, time orientation, social hierarchies, and the implicit common assumptions that underlie every action within the company represent the main part of culture (Schein, 2004).

2.4.1 Organizational Culture Assessment Instrument

Many different methodologies for measuring organizational culture have been developed over the last few decades. Numerous instruments are available for evaluating organizational culture. Jung et al. (2007) conducted a literature review of existing qualitative and quantitative instruments for exploring organizational culture and provided an assessment of the different instruments' characteristics and technical properties.

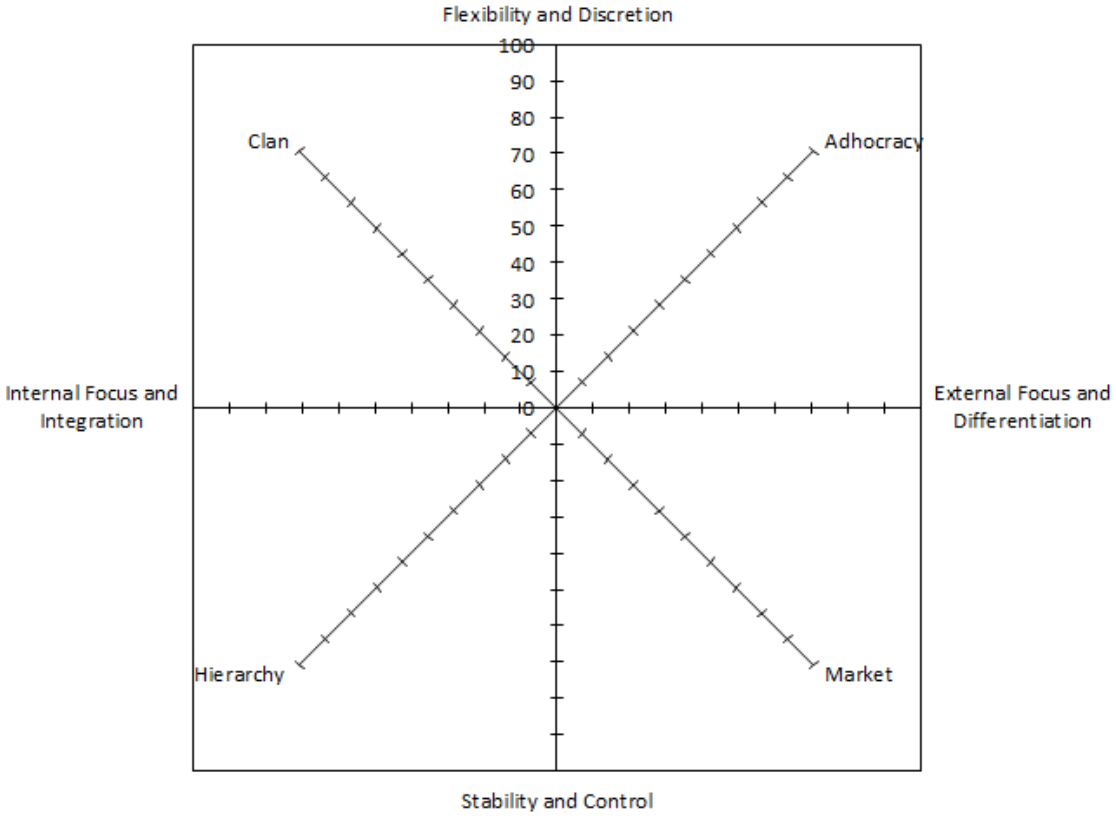
Based on a comparison between different methodologies, the context of the dissertation research, the aim of the study, and the available resources, the selected instrument for evaluating organizational culture was the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (2006). This instrument diagnoses an organization's dominant orientation based on four core culture types (Clan culture, Adhocracy culture, Market culture and Hierarchy culture). These culture types represent ideal types which can be used to characterise the organizational culture. However, it is very unlikely for organizations to reflect only one culture type. In fact, certain elements of each of the four culture types should be adopted in order for organizations to be effective (Yong & Pheng, 2008; Zammuto & Krakower, 1991; Cameron & Quinn, 2006).

The OCAI provides a picture of the fundamental assumptions on which the organization operates and the values that characterise it. Its intention is to help identify the organization's current culture as well as its preferred culture, i.e. "the culture that organization members think should be developed to match the future demands of the environment and the opportunities to be faced by the company" (Cameron & Quinn, 2006). In the dissertation, the focus is only on the current organizational culture; therefore, data concerning the companies' preferred culture were neither considered nor analysed.

The OCAI is based on the Competing Values Framework (CVF) which consists of four competing values that correspond with four types of organizational culture. Every organization has its own mix of these four types of organizational culture (Cameron & Quinn, 2006). The CVF categorises cultural dimensions in a two-dimensional space, where each axis represents contrast orientations (Škerlavaj et al., 2007). The first dimension differentiates effectiveness criteria that emphasise flexibility and discretion from criteria that emphasise stability and control, and the second dimension differentiates effectiveness criteria that emphasise an internal focus and integration from criteria that emphasise an external

orientation and differentiation (Cameron & Quinn, 2006). The combination of both dimensions defines the four types of organizational culture (Škerlavaj et al., 2007). Figure 7 presents CVF and the four types of organizational culture.

Figure 7. Competing values framework and the four types of organizational culture



Source: Cameron & Quinn, *Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework*, 2006, p. 67.

The OCAI is an instrument in the form of a questionnaire that requires the respondent to self-report their own perceptions of the organization's current culture by responding to 24 declarative statements arranged in 6 sections, which represent the 6 content dimensions of organizational culture. There are four declarative statements within each culture dimension that are tied to the four culture types. The six content dimensions are labelled *dominant characteristics*, *organizational leadership*, *management of employees*, *organizational glue*, *strategic emphasis*, and *criteria for success* (Cameron & Quinn, 2006).

The OCAI utilises a 100-point summative scale. The respondent is asked to divide the 100 points among four alternatives for each content dimension of organizational culture mentioned above, depending on the extent to which each alternative is similar to their own organization. A higher number of points should be given to the alternative that is most similar to the respondent's own organization. Based on the respondent's scores, the averages are then computed for different alternatives representing the respective culture type of the respondent's organization (Cameron & Quinn, 2006).

2.4.2 Organizational culture types

2.4.2.1 Clan culture

Clan culture, also known as Group culture (e.g. in the study of Prajogo & McDermott, 2005), is characterised by a friendly workplace where teamwork and employee development are emphasised. It is flexible and people-oriented. The organization is like an extended family and the leaders are seen as mentors or perhaps even as father figures (Cameron & Quinn, 2006). Employees are given autonomy to make decisions and encouraged to take responsibility for their work (Baird et al., 2011). The high involvement of employees in organizations often abandons the authoritative boundaries between them, which also provides a suitable environment for their collaboration (Alibabaei et al., 2010). Organizations with a dominant Clan culture promote the development of human resources stressing openness, participation, cohesiveness and commitment to membership (Prajogo & McDermott, 2005).

Clan culture emphasises flexibility and internal organization (Prajogo & McDermott, 2005). Success is defined in terms of the internal climate, addressing the needs of the clients and concern for people. The organization promotes loyalty, tradition, participation and commitment (Cameron & Quinn, 2006). A Clan culture is also characterised by abandoning authorities and a greater tendency for employee collaboration and teamwork (Alibabaei et al., 2010).

2.4.2.2 Adhocracy culture

Adhocracy culture, also known as Entrepreneurial or Developmental culture in some studies (e.g. Lai & Lee, 2007; Prajogo & McDermott, 2005, 2011), is oriented toward flexibility and the external environment. Adhocracy culture is focused on innovation and growth (Dellana & Hauser, 1999; Prajogo & McDermott, 2005), as well as creativity stimulation, resource acquisition, and continual adaptation to the external environment (Prajogo & McDermott, 2005). Organizations fostering an Adhocracy culture are more proactive and aware of changes in their environment (Lai & Lee, 2007). Adhocracy culture emphasises accepting and managing the forces of change and creating new possibilities (Hsu, Tan, Jayaram & Laosirihongthong, 2014).

This culture type encompasses an environment that encourages creativity and values initiative behaviours, and human resources are recognised as a core asset for achieving business objectives (Alibabaei et al., 2010). “Innovative and ambitious people thrive in these environments. They are creative places to work, filled with challenge and risk. The simulation is often constant. An individual well-suited to an innovative company is driving, enterprising, challenging, stimulating, creative, and risk-taking” (Lai & Lee, 2007).

In short, an Adhocracy culture is characterised by a dynamic, entrepreneurial and creative working environment in which people take risks and value innovation, agility and experimentation. Such organizations emphasise acquiring new resources, creating new opportunities and rapid growth. Producing unique and original products and services is seen as success, thus readiness for change and meeting new challenges are important. The

organization concentrates on external positioning with a high degree of flexibility and individuality (adapted from Cameron & Quinn, 2006).

2.4.2.3 Market culture

Market culture, also known as Rational culture (e.g. in the study of Prajogo & McDermott, 2011), focuses on the external environment (i.e. customer needs) but at the same time is control-oriented (Prajogo & McDermott, 2005). The main values found in market-type organizations are profitability, performance, productivity, and goal achievement (Cameron & Quinn, 2006). One of the primary motivating factors in such organizations is competition (Prajogo & McDermott, 2005). The major concern is with getting the job done. People are not very personally involved (Lai & Lee, 2007), they are competitive and goal-oriented (Cameron & Quinn, 2006). Employees compete with each other, which might restrain their communication and sharing of knowledge within the organization (Lai & Lee, 2007). In this kind of culture, organizations are concerned with competitive actions and the achievement of measurable goals and targets. The leaders tend to be tough and demanding with very high expectations. A great deal of stress is put on winning and competing with each other within the organization as well as with external competitors outside of the group (Cameron & Quinn, 2006).

The elements defining a Market culture are task focus, clarity, efficiency, and outcome excellence (Prajogo & McDermott, 2011). Market culture emphasises action, achievements and results, while encouraging having high expectations for performance (Baird et al., 2011). It is oriented to control and external activities (Prajogo & McDermott, 2011).

In essence, Market culture is a results-oriented workplace focused on goals and creating a competitive advantage. Organizations with a dominant Market culture concentrate on external positioning with a need for stability and control. The long-term concerns are good reputation and success, which is defined in terms of market share and penetration. Competitive pricing and market leadership are important and the prevailing organizational style is hard-driving competitiveness (adapted from Cameron & Quinn, 2006).

2.4.2.4 Hierarchy culture

A Hierarchy culture or Hierarchical culture (Prajogo & McDermott, 2005, 2011) is characterised by a formal work environment in which structure, control, coordination and efficiency are emphasised and procedures govern people's activities. Clear lines of decision-making authority, standardised rules and procedures, and control and accountability mechanisms are valued as the keys to success. Formal rules and policies enable the leaders to effectively coordinate and organize activities and to maintain a smooth-running organization. Stability, predictability and efficiency characterise the long-term concerns of this organization (summarised from Cameron & Quinn, 2006).

A Hierarchy culture is defined by an internal focus and a control orientation (Prajogo & McDermott, 2011). It emphasises rules, regulations and standardisation to achieve control and

stability (Prajogo & McDermott, 2005). Employees are encouraged to do their assigned job based on some predefined rules and instructions, which they must follow (Alibabaei et al., 2010). "Introducing employee empowerment to such an environment would be seen with scepticism and it would not be accepted by either managers or employees" (Tsai, 2003, adopted from Alibabaei et al., 2010). People are used to the rigid and fixed disciplines of the organization (Lai & Lee, 2007). Organizations with a dominant Hierarchy culture also seem to be less supportive of innovation (Hsu et al., 2014; Lai & Lee, 2007) because "creating an innovative environment involves giving up some authority usually associated with leadership and even some ownership, whether legal or psychological, in the organization" (Hsu et al., 2014).

3 INVESTIGATING THE RELATIONSHIP BETWEEN BUSINESS PROCESS MANAGEMENT ADOPTION AND DIFFERENT ORGANIZATIONAL CULTURE TYPES: A LITERATURE REVIEW

ABSTRACT

This study reviews the main research findings on BPM adoption in connection to organizational culture, specifically the different types of organizational culture defined by Cameron and Quinn (2006). The findings show there are only a handful of papers that discuss the relationship between the different organizational culture types and BPM adoption. These papers suggest there are significant differences in how different culture types impact the adoption of BPM. However, this topic is still under-researched. There is a gap in the empirical literature directly examining the correlation between culture types and process performance. In addition, the literature does not address the approach to BPM adoption under different culture types, although the importance of a fit between BPM and organizational culture is well recognised. Based on the structured literature review, a framework is proposed that shows the relationship between organizational culture, the approach to BPM adoption, and the success of BPM adoption. The framework can serve as a starting point for structuring future research on this topic, which is necessary to gain a better understanding of the relationship between the different organizational culture types and BPM adoption. Ultimately, these findings could help improve the success rate of BPM projects in practice.

Keywords: Business process management, BPM success, approach, organizational culture, organizational culture types, Hierarchy culture, Clan culture, Market culture, Adhocracy culture

3.1 Introduction

Business Process Management (BPM) plays a central role in aligning organizational change with information systems development. BPM is typically defined as an initiative driven by a group of BPM experts who support BPM-related projects in different parts of the organization. In this context, the BPM experts provide the methodological knowledge for carrying out BPM-related projects so that business processes can be improved and software supporting the business processes can be implemented.

While BPM's potential benefits are widely acknowledged in both the literature and practice (Bandara et al., 2009; Jeston & Nelis, 2006; Škrinjar et al., 2008; Neubauer, 2009), it has been observed that BPM-related projects often fail to deliver the intended benefits and that the overall idea of BPM cannot be integrated into the organization (Trkman, 2010; Grisdale & Seymour, 2011). Research has discussed these problems as a question of which factors facilitate BPM adoption success or failure. One factor that is mentioned more often is organizational culture.

Several studies describe how organizational culture may have a significant impact on BPM adoption (e.g. Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010) or that it might be connected with failure and success (Melenovsky & Sinur, 2006; Bandara et al., 2009; Ravesteyn & Versendaal, 2007). It is argued that cultural characteristics in organizations may provide either suitable conditions or hindrances for success in BPM adoption (Bandara et al., 2009). Also certain values are mentioned as being supportive of BPM objectives or as road blocks (vom Brocke & Sinnl, 2011).

BPM researchers agree there should be a fit between BPM and organizational culture (vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011). Further, Armistead and Machin (1997) point out that the approach to BPM needs to initially fit with the culture of the organization and that culture drives the appropriate initial approach to BPM adoption. However, how to approach BPM in the presence of different cultures has not been systematically investigated. There is a research gap regarding the connection between BPM adoption success and organizational culture. In addition, the research still lacks a clear understanding of what constitutes BPM adoption and how BPM adoption success can be measured.

Despite the well-established impact of organizational culture on the success of BPM adoption (De Bruin, 2009), the topic of culture in BPM is still widely under-researched (vom Brocke & Sinnl, 2011). The purpose of this chapter is to review the main research findings on BPM adoption in relation to organizational culture, specifically to the different types of organizational culture defined by Cameron and Quinn (2006), and to propose a conceptual model that synthesises and extends the existing research. Based on the literature review, a conceptual framework that links organizational culture with BPM adoption success through the approach to BPM adoption is developed.

The chapter is structured as follows. Section 3.2 provides the theoretical background of this study, including BPM adoption, BPM adoption success, and organizational culture. Section 3.3 presents the methodology of the literature review. Section 3.4 discusses the results. Section 3.5 summarises the findings and discusses the implications, limitations and opportunities for future research. Section 3.6 concludes the chapter.

3.2 Theoretical background

3.2.1 Business Process Management adoption

BPM is a management approach that takes a process view (de Bruin & Doebeli, 2010) and depends on strategic and operational elements, the use of tools and techniques, the involvement of people while focussing on effectively satisfying customer requirements (Zairi, 1997). It is "the achievement of an organization's objectives through the improvement, management and control of essential business processes" (Jeston & Nelis, 2006) and a holistic management discipline that requires a series of aspects to be considered for its successful

adoption (Rosemann & vom Brocke, 2010). Taking a process approach means adopting the customer's point of view (Davenport, 1994) and is a way in which organizations are managed (Pritchard & Armistead, 1999).

If successfully adopted, BPM can bring significant benefits to the organization like a better understanding of its business processes, greater control, better business performance (Škrinjar et al., 2008), and an agile adaptation to changing business requirements (Neubauer, 2009). However, adopting BPM is a very complex process that requires effort, time, resources and discipline.

For the purpose of this chapter, BPM adoption is defined as *the use and deployment of any BPM concepts in organizations* (Reijers et al., 2010). These concepts range from governance structures, role definitions and performance indicators to modelling tools and redesign techniques (Dumas et al., 2013). Given its scope, BPM adoption is likely to trigger widespread organizational changes.

Organization-wide BPM adoption tends to go through multiple stages (see Figure 8), starting with *awareness and understanding of BPM* (Rosemann, 2010). It is important that an organization recognises the value of BPM and believes in the benefits the concept can bring. This can be achieved by training and educating the employees. Then a business driver (a sense of urgency) and a champion (an individual with a passion for the idea of BPM) are required to trigger the *desire to adopt BPM*, which is the second stage of BPM adoption (Rosemann, 2010). These business driver(s) and champion(s) must be important enough and need to have sufficient influence within the organization to convince its executives and key employees to accept the idea of adopting BPM. Good communication is imperative for this.

Figure 8. Typical stages of Business Process Management adoption

Source: adopted from Rosemann, *The Service Portfolio of a BPM Center of Excellence*, 2010.

A major driver for adopting BPM is the need to reduce costs by making processes more efficient (Scheer & Brabander, 2010; Wolf & Harmon, 2012). A few other triggers for an organization to adopt BPM are the need to improve management coordination or organizational responsiveness, the need to improve customer satisfaction to remain competitive, implementing information technology (IT) systems and business applications, establishing quality management systems for ISO certification, adopting legislation-based compliance management approaches that focus on business processes, along with high growth, mergers and acquisitions, reorganization, a change in strategy and the need for business agility (Jeston & Nelis, 2006; Scheer & Brabander, 2010; Wolf & Harmon, 2012).

The third stage of BPM adoption is the setting up, executing and monitoring of individual *BPM projects* (Rosemann, 2010). These projects may comprise process modelling and an improvement of individual business processes, together with BPM education and training. If BPM projects are successful, the organization can then move to the fourth stage – converting BPM projects into a *BPM program* where an overall BPM methodology needs to be designed, along with the BPM strategy and a roadmap for its execution (Rosemann, 2010).

In the final stage of adopting BPM, a centralised BPM Centre of Excellence (CoE), usually run by a Chief Process Officer (CPO), is established. The CoE is responsible for ensuring that all BPM-related activities are consistently delivered in a cost-effective way. Moreover, the BPM-related services offered by the BPM CoE should be consciously identified – the *productization of BPM* – to realise the overall benefits of adopting BPM (Rosemann, 2010). BPM-related services include defining and modelling existing business processes, analysing and optimising the processes, training and educating employees in order to encourage process thinking, process performance measurement, introducing process ownership etc. A process owner is an individual with ultimate authority and responsibility over process operations, and needs to be well acquainted with the process and occupy a relatively high position in the company (Žabjek, Kovačič & Indihar Štemberger, 2008).

3.2.2 Business Process Management adoption success

To be able to draw conclusions regarding the success of the BPM adoption, it first needs to be defined. However, the literature only offers general definitions of BPM success, such as *continuously meeting pre-determined goals* (Trkman, 2010) and *sufficiently satisfying intended goals of the BPM initiative* (Bandara et al., 2009). Not a single paper has defined BPM success in a comprehensive manner (Trkman, 2010).

Due to this absence of an instrument, I follow Škrinjar and Trkman (2013), Thompson et al. (2009) and Dabaghkashani et al. (2012) who use proxies to measure the success of BPM adoption. For this study, the Business Process Orientation maturity model (BPO maturity model) developed by McCormack and Johnson (2001), and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004) are considered. Although numerous BPM/BPO maturity models are available, these two models stand out for several reasons. Both models have been empirically validated, are generic (i.e. used for business processes generally), produce quantitative data (can be easily statistically analysed and compared, independent of assessors' interpretations), and take account of all business processes in the organizations involved (van Looy et al., 2012). In addition, the assessment does not take long, and the assessment questions and corresponding level calculation are well-established and publicly available free of charge. In the selection process, I made use of the freely available BPMM Smart-Selector tool developed by van Looy et al. (2012).

The BPO maturity model is employed in line with Škrinjar and Trkman (2013) who argue that "BPM is an approach for increasing BPO" and that the proper BPM adoption directly affects the business process orientation (BPO). When an organization adopts BPM, it should become

more process-oriented and BPO can therefore be used to measure the success of BPM adoption (Škrinjar & Trkman, 2013). In addition to the BPO maturity model, the PPI is used. It serves as an overall measure of the process management environment in an organization and suggests how well an organization is managing its key business processes (Rummler-Brache Group, 2004). For BPM adoption to be successful, the organization should have a high level of BPO and PPI. In other words, the higher the level of the BPO and process performance, the more successful is the BPM adoption. Table 1 shows different levels of BPO and PPI, along with brief descriptions of them.

Table 1. Levels of Business Process Orientation and Process Performance Index

Business Process Orientation – BPO (McCormack and Johnson, 2011)	**Process Performance Index – PPI (Rummler-Brache Group, 2004)**
Ad Hoc: The processes are unstructured and ill-defined. Emphasis on traditional functions, not processes.	*Process Management Initiation:* Organizations that are beginners to process management; however they desire to learn more about it.
Defined: The basic processes are defined, documented, and available in flow diagrams. Changing the processes is a formal procedure.	*Process Management Evolution:* Organizations are "process-aware" and have often instituted formal process improvement programmes. Process owners are usually identified and, in some cases, the organizations already use the process and performance metrics. However, companies in this stage have not yet reached their full potential regarding the process management.
Linked: This is the breakthrough level. Managers employ process management with strategic intent and results. Broad process jobs and structures are put in place outside the traditional functions and the "process owners" are introduced.	
Integrated: Cooperation is taken to the process level. Organizational structures and jobs are based on processes, which become equal or even superior to the traditional functions. Process measures and management systems are widely and frequently used in the organization.	*Process Management Mastery:* For organizations in this stage, BPM is a way of life. Process owners are rewarded based on the performance of their assigned processes. Performance metrics are used throughout the organization and focus on all three performance levels: organization, process and individual.

3.2.3 Organizational culture

Organizational culture is composed of values, beliefs, attitudes and behaviours and distinguishes one group or category of people from another (Hofstede, 1993; Schein, 1996). It provides unwritten and often unspoken guidelines for how to get along in the organization and conveys a sense of identity to the employees (Cameron & Quinn, 2006). Every company has its own culture with its own values which become apparent, for example, in the actions of the employees. The culture develops along with the history of the company, and therefore represents its people's behaviour.

Many different methodologies and instruments for assessing organizational culture have been developed, encompassing various types of organizational culture. For the purpose of this

research, the selected instrument for evaluating organizational culture was the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (2006). The OCAI provides a picture of the fundamental assumptions on which the organization operates and the values that characterise it. This instrument diagnoses the dominant orientation of the organization based on four core culture types (Clan culture, Adhocracy culture, Market culture and Hierarchy culture).

The OCAI is based on the Competing Values Framework (CVF), which consists of four competing values that correspond with the four types of organizational culture. Every organization has its own mix of these four types of organizational culture (Cameron & Quinn, 2006). The CVF categorises cultural dimensions in a two-dimensional space, where each axis represents contrast orientations (Škerlavaj et al., 2007). The first dimension differentiates effectiveness criteria that emphasise flexibility and discretion from criteria that emphasise stability and control, and the second dimension differentiates effectiveness criteria that emphasise an internal focus and integration from criteria that emphasise an external orientation and differentiation (Cameron & Quinn, 2006). The combination of both dimensions defines the four types of organizational culture (Škerlavaj et al., 2007). These culture types represent ideal types, which can be used to characterise the organizational culture. However, it is very unlikely for organizations to reflect only one culture type. In fact, certain elements of each of the four culture types should be adopted in order for organizations to be effective (Yong & Pheng, 2008; Zammuto & Krakower, 1991; Cameron & Quinn, 2006).

Clan culture, also known as Group culture (e.g. in the study of Prajogo & McDermott, 2005), is characterised by a friendly workplace where teamwork and employee development are emphasized. It is flexible and people-oriented. The organization is like an extended family and the leaders are seen as mentors or perhaps even as father figures (Cameron & Quinn, 2006). Success is defined in terms of the internal climate, addressing the needs of the clients and concern for people. The organization promotes loyalty, tradition, participation and commitment (Cameron & Quinn, 2006). A Clan culture is also characterised by abandoning authorities and a greater tendency for employee collaboration and teamwork (Alibabaei et al., 2010).

Adhocracy culture, also known as Entrepreneurial or Developmental culture in some studies (e.g. Lai & Lee, 2007; Prajogo & McDermott, 2005, 2011), is oriented toward flexibility and the external environment. Adhocracy culture is characterised by a dynamic, entrepreneurial and creative working environment in which people take risks and value innovation, agility and experimentation. Such organizations emphasise acquiring new resources, creating new opportunities and rapid growth. Producing unique and original products and services is seen as success, thus readiness for change and meeting new challenges are important. The organization focuses on external positioning with a high degree of flexibility and individuality (adapted from Cameron & Quinn, 2006).

Market culture, also known as Rational culture (e.g. in the study of Prajogo & McDermott, 2011), focuses on the external environment (i.e. customer needs) but at the same time is control-oriented (Prajogo & McDermott, 2005). The main values found in market-type organizations are profitability, performance, productivity, and goal achievement (Cameron & Quinn, 2006). One of the primary motivating factors in such organizations is competition (Prajogo & McDermott, 2005). The leaders tend to be tough and demanding with very high expectations (Cameron & Quinn, 2006). A Market culture is a result-oriented workplace focused on goals and creating a competitive advantage. The long-term concerns are a good reputation and success, which is defined in terms of market share and penetration (adapted from Cameron & Quinn, 2006).

Hierarchy culture or Hierarchical culture (Prajogo & McDermott, 2005, 2011) is characterised by a formal work environment in which structure, control, coordination and efficiency are emphasized and procedures govern people's activities. Clear lines of decision-making authority, standardised rules and procedures, and control and accountability mechanisms are valued as the keys to success. Formal rules and policies enable the leaders to effectively coordinate and organize activities and to maintain a smooth-running organization. Stability, predictability and efficiency characterise the long-term concerns of this organization (summarised from Cameron & Quinn, 2006). A Hierarchy culture is defined by an internal focus and a control orientation (Prajogo & McDermott, 2011). It emphasises rules, regulations and standardisation to achieve control and stability (Prajogo & McDermott, 2005). Employees are encouraged to do their assigned job based on some predefined rules and instructions, which they must follow (Alibabaei et al., 2010).

3.3 Methodology

A structured literature review was conducted to provide insights into the relationship between BPM adoption and organizational culture, specifically the different types of organizational culture defined by Cameron and Quinn (2006). In addition, a framework that connects organizational culture with BPM adoption success through the approach to BPM adoption is developed.

Corresponding to the requirements of such a literature review (vom Brocke et al., 2009; Webster & Watson, 2002), the review process is documented as transparently as possible. In order to provide a comprehensive review of the relevant literature, the focus is on papers in scientific, peer-reviewed journals, thereby excluding papers from other sources (e.g. conference proceedings or grey literature).

3.3.1 Defining the research basis

This literature review aims to cover a broad range of relevant literature in order to explore the state-of-the-art research on BPM adoption with respect to different organizational cultures. First, the appropriate journal databases were selected, i.e. Emerald database, SCOPUS, EBSCO Business Source Premier, and Web of Science. Next, relevant keywords were

identified. To cover articles dealing with BPM and culture, I searched for “business process management” and “cultur*” in the title, abstract or keywords of the papers. To be able to identify those papers that cover BPM and different types of organizational culture, I searched for “business process management” in the title, abstract or keywords of the papers and different organizational culture types (i.e. "Hierarchy culture" or "Market culture" or "Adhocracy culture" or "Clan culture" or "Hierarchical culture" or "Rational culture" or "Developmental culture" or "Group culture") in full texts of the papers. In addition, I searched for “business process management” in the title, abstract or keywords and "BPM culture" in the full texts of the papers. Table 2 provides an overview of the research approach.

Table 2. Research approach

Source	Emerald, SCOPUS, EBSCO BSP, Web of Science	Emerald, SCOPUS, EBSCO BSP, Web of Science	Emerald, SCOPUS, EBSCO BSP, Web of Science
Search term 1	"business process management"	"business process management"	"business process management"
Search field 1	title, abstract, keywords	title, abstract, keywords	title, abstract, keywords
Search term 2	[AND] cultur*	[AND] "Hierarchy culture" OR "Market culture" OR "Adhocracy culture" OR "Clan culture" OR "Hierarchical culture" OR "Rational culture" OR "Developmental culture" OR "Group culture"	[AND] "BPM culture"
Search field 2	title, abstract, keywords	full text	full text
Additional requirements	peer reviewed only, academic journal, articles only	peer reviewed only, academic journal, articles only	peer reviewed only, academic journal, articles only
Number of papers identified	86	7	6
Number of papers selected for review	**14**	**1**	**4**

3.3.2 Extracting, analysing and categorising the relevant research

In the next step of the literature review, the titles and abstracts of identified papers were analysed to determine which papers are relevant to the research topic. Papers not fitting the topic of interest, due to not containing thematically relevant content in the abstracts, were removed. In the analysis, research was considered relevant if it specifically covers cultural aspects in BPM. Based on this initial analysis, 14 papers were selected for further analysis.

Due to the small number of relevant papers that was found, an additional search was conducted using the search term "process management" in the title, abstract or keywords of the papers (instead of the term "business process management") in combination with the search terms for different organizational culture types (i.e. "Hierarchy culture", "Market culture", etc.) in the full texts of the papers. As a result of this search, three possibly relevant papers were identified, addressing the relationship between the four organizational culture types and Total Quality Management (TQM), which is closely connected to BPM and could be considered as part of a BPM initiative. Further, four other relevant papers I came across on the Internet were included in the literature review.

The whole text of all relevant papers was analysed with regard to their content. Those papers whose content was identified as relevant to the research topic were chosen for the study. Altogether, 21 papers were selected for the literature review. These papers were coded manually, using Atlas.ti as a data management tool. I followed the two-step coding process beginning with basic coding in order to distinguish overall themes, followed by a more in-depth, interpretive coding, in which more specific trends and patterns were interpreted (Hay, 2005).

Based on the coding, relevant papers were categorised in three groups. First, the focus was on papers elaborating on organizational culture's role in BPM. Next, papers dealing with the concept of BPM culture were considered. Finally, papers that mention or discuss the relationship between BPM and different organizational culture types under CVF are analysed. Table 3 presents the papers selected for the literature review (the column *Times cited* presents the number of citations found on Google Scholar as at 27 September 2016).

Table 3. Papers selected for the literature review

Papers elaborating on organizational culture's role in BPM:

Author(s)	Year	Key results	Times cited
Armistead, Pritchard & Machin	1999	The organizational culture shapes the way BPM works. The cultural fit is a very important issue. For BPM adoption to be successful, "the approach to BPM should fit with the culture of the organization".	184
Zhao	2004	Organizational culture cannot be proclaimed or forced by managers. It also cannot be changed in a short period of time.	26
Rad	2006	Employees are more reluctant to accept a new approach if it conflicts with the culture of the organization. For TQM programmes to succeed, a collaborative culture should be developed.	208
Lai & Lee	2007	Organizational culture develops over time and does not change quickly. The cultural characteristics should be compatible with the BPM project.	73
Alibabaei, Aghdasi, Zarei & Stewart	2010	Organizational culture has to be compatible with the culture that is built in BPM; otherwise, the adoption of the concept is unlikely to be successful. Changing the organizational culture is difficult. "Hierarchical organizations have different policies and procedures that are clearly in contrast with business process concepts."	6
Baird, Hu & Reeve	2011	Organizational culture is difficult to change. It reflects the combination of the various organizational characteristics and practices adopted.	133
Kohlbacher & Gruenwald	2011	Only a culture based on teamwork, willingness to change, a customer orientation, personal accountability, and a cooperative leadership style goes hand in hand with the process approach.	78
da Silva, Martins Damian & Dallavalle de Pádua	2012	Inappropriate culture may be the main reason BPM projects fail. The method chosen should be adjusted to the context of the organization.	25
Kohlbacher & Reijers	2013	Organizational culture in line with the process approach is significantly and positively associated with organizational performance.	38
Grau & Moormann	2014	BPM adoption success is interwoven with the culture of the organization. Despite its relevance, little research systematically addresses culture in the context of BPM.	11
Wong, Tseng & Tan	2014	Organizations with a supportive culture would most likely achieve BPM success, whereas organizations with a non-supportive culture would have great difficulties adopting BPM.	19

(table continues)

(continued)

Papers elaborating on organizational culture's role in BPM that also deal with the concept of BPM culture:

Author(s)	Year	Key results	Times cited
Zairi	1997	BPM culture is a culture based on process management. The achievement of a BPM culture depends on establishing total alignment with the corporate goals and being focused on adding value to the end customer.	477
vom Brocke & Sinnl	2011	The topic of culture in BPM is still widely under-researched. BPM culture is a facet of organizational culture and refers to a certain set of values considered directly supportive of BPM objectives.	124
Schmiedel, vom Brocke & Recker	2013	The authors identify four opposing BPM values (i.e. CERT values: customer orientation, excellence, responsibility and teamwork) and find that only their simultaneous presence makes up a culture supportive of BPM objectives.	56
Schmiedel, vom Brocke & Recker	2014	The authors develop and validate a measurement instrument that enables an assessment of the degree to which an organizational culture supports BPM.	49

Papers mentioning BPM/TQM in connection to different organizational culture types:

Author(s)	Year	Key results	Times cited
Dellana & Hauser	1999	TQM success is positively correlated to the Clan and Adhocracy culture types and negatively correlated to the Market and Hierarchy culture types. Adhocracy culture appears to be "the ideal cultural profile for supporting TQM".	105
Prajogo & McDermott	2005	Cultures considered suitable for TQM practices are typically those related to a flexible and people-oriented style where employees are valued and empowered.	273
Yong & Pheng	2008	Organizations with a Clan culture highly implement the element of process management while organizations with a Hierarchy culture implement all elements lowly to moderately.	41
Prajogo & McDermott	2011	The Adhocracy culture has the strongest relationship with process innovation, whereas the Market and Hierarchy cultures are positively related to process quality. The Clan culture predicts process quality and process innovation.	96
Ruževičius, Klimas & Veleckaitė	2012	Adhocracy culture has an important impact on the quality and time aspects of BPM success. The Market culture has a strong influence on BPM success in the costs field. No significant correlation was found between the Clan or Hierarchy culture type and the success of BPM.	9
Gambi, Boer, Gerolamo, Jørgensen & Carpinetti	2015	Continuous improvement techniques are supported in the Clan, Adhocracy and Market cultures, but not in the Hierarchy culture. On the other hand, the Market and Hierarchy cultures are positively associated with measurement techniques, whereas the relationship between the Clan culture and measurement techniques is negative.	4

3.4 Literature review – results

3.4.1 The role of organizational culture in Business Process Management adoption

Since BPM is a multidisciplinary concept, its success depends on different factors (Bandara et al., 2009). One of the key factors being discussed as an important success factor of BPM adoption is organizational culture. Organizational culture is an emerging theme highly relevant to both academia and practitioners in management, business and IS (Reiter et al., 2010) and is considered very important when trying to improve organizational performance through business process change (Škerlavaj et al., 2007; Clemons et al., 1995; Guimaraes, 1997; Terziovski et al., 2003; Wong, Tseng & Tan, 2014; Zhao, 2004). "The success of any process initiative is interwoven with the culture of the respective company" (Grau & Moorman, 2014). Any company choosing to adopt change concepts must redefine its culture to some extent (Lewis, 1996; Abraham, Fisher & Crawford, 1997; Pool, 2000; Kekäle, Fecikova & Kitaigorodskaia, 2004) and its success depends on the organizational culture (Laszlo, 1998; Prajogo & McDermott, 2005).

BPM is perceived as a management approach that requires a BPM culture (vom Brocke & Schmiedel, 2011; vom Brocke & Sinnl 2011). Zairi (1997) argues that it is not enough to simply have "good systems and the right structure in place", but "an effective process-based culture" is also required for organizational change leading towards effective BPM (vom Brocke & Schmiedel, 2011).

Different studies have shown that organizational culture has a significant impact on the successful adoption of BPM and that it has to be compatible with culture that is built in the BPM; otherwise the adoption of the concept is unlikely to be successful (Bandara et al., 2009; Alibabaei et al., 2010). Employees are more reluctant to accept a new approach if it is in conflict with the culture of the organization (Rad, 2006). Organizations with a supportive culture would most likely achieve BPM success, whereas organizations with a non-supportive culture would have great difficulties adopting BPM (Wong et al., 2014). Therefore, the method chosen should be adjusted to the context of the organization (da Silva et al., 2012). Although culture is commonly considered a "soft-factor", its great impact on the success of BPM has been clearly demonstrated (de Bruin, 2009).

Several process maturity models include culture as an important factor (Rosemann & vom Brocke, 2010; Hammer, 2007) and provide strong empirical evidence for the relevance of culture in BPM (vom Brocke & Sinnl 2011). Thus, culture is an essential element of the BPM domain and is often referred to in research as both an independent and a dependent factor (vom Brocke & Sinnl, 2011). Organizational culture shapes the way BPM works (Armistead et al., 1999), has a direct effect on BPM adoption and can lead it to success or hinder the attempt (Alibabaei et al., 2010).

Organizational culture is collection of beliefs, values and some informal rules of an organization. It develops over time and does not change quickly (Lai & Lee, 2007; Yong &

Pheng, 2008). It is argued that changing the traditional culture in an organization to a new culture, which is adaptive and process oriented, is difficult (Alibabaei et al., 2010). In fact, changing the culture has proven to be one of the most difficult aspects of successful BPM projects and people's resistance to change has been identified as the biggest obstacle (Lee & Dale, 1998). Organizational culture cannot be proclaimed or forced by managers – managers can only lead the way for an organization to reach its objectives (Alibabaei et al., 2010; Tsai, 2003; Zhao, 2004). Since organizational culture cannot be changed in a short period of time (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004), its characteristics should be seen as predecessors for the success of BPM projects (Bandara et al., 2009).

Inappropriate culture is described as the main reason for the failure of BPM projects (da Silva et al., 2012; Wong et al., 2014). In many cases, employees do not feel the need to change processes and their general way of thinking. Common understanding and shared values that support the process organization and the awareness of how culture affects BPM success are essential for BPM (vom Brocke & Sinnl, 2011; Wong et al., 2014; Prajogo & McDermott, 2011).

People are unaware of their culture until it is challenged; for example, when initiating a BPM adoption and in business process change projects (Alibabaei et al., 2010). The adoption of a BPM approach and its values is challenged by the existing organizational culture and simultaneously changes it (vom Brocke & Sinnl, 2011). Cultural fit is a very important issue (Armistead & Machin, 1997; Armistead et al., 1999; Kohlbacher & Gruenwald, 2011). If BPM adoption conflicts with the culture of the organization, the adoption will be resisted in one of two ways, either the changes will be rejected or they will be poorly modified in order to match the existing culture (Ke & Wei, 2008, adopted from Alibabaei et al., 2010). Managers should be aware of the organizational culture and ensure the cultural characteristics are compatible with the BPM project (Alibabaei et al., 2010; Lai & Lee, 2007). An organization aware of its organizational culture type is able to select the appropriate strategy, which fits with the organizational culture context (Ruževičius, Klimas & Veleckaite, 2012). Moreover, knowing the way that organizational culture characteristics affect BPM adoption helps organizations foster those cultural dimensions that facilitate BPM adoption and be aware of their weaknesses, in order to find a solution for overcoming them (Alibabaei et al., 2010).

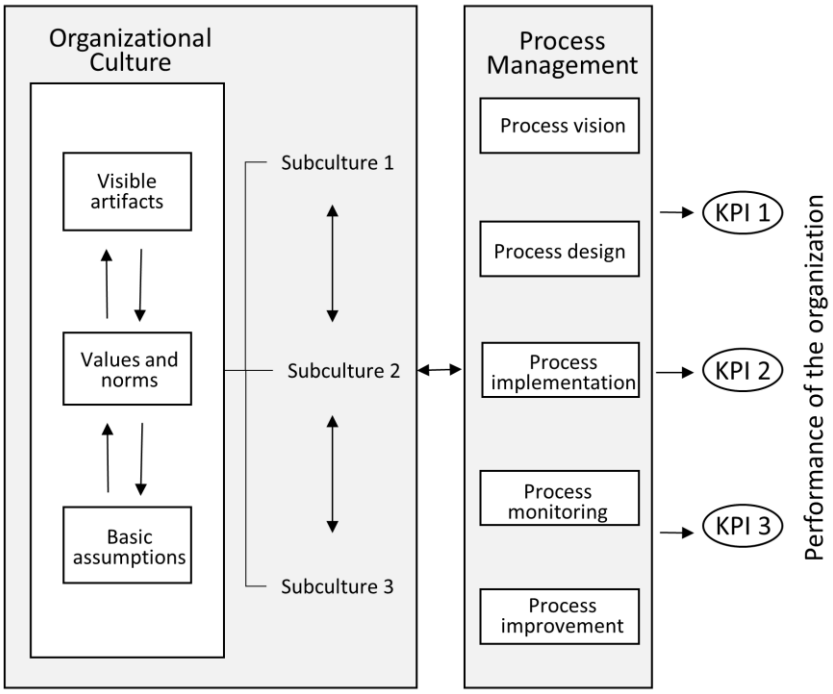
Despite its relevance, culture is mostly superficially covered in the literature as one aspect out of several relevant to BPM and little research systematically addresses culture in the BPM context (vom Brocke & Schmiedel, 2011; Grau & Moorman, 2014). Vom Brocke and Sinnl (2011) conducted a literature review on culture in BPM and provided a summary of how culture is perceived in BPM research. They analysed the relationship between BPM and culture and identified the following four dimensions (vom Brocke & Sinnl, 2011):

- *Culture as an independent factor influencing BPM*: culture is perceived as a success factor or barrier regarding BPM.

- *Culture as a dependent factor influenced by BPM*: BPM systems or general BPM initiatives are recognised as affecting culture through structure changes.
- *Culture as BPM culture*: BPM culture generally describes a culture supportive of BPM objectives and can be understood as a specific aspect of an organizational culture.
- *Culture as an important aspect in BPM*: BPM requires attention to culture.

A similar literature review on the relationship between process management and organizational culture was conducted by Grau and Moormann (2014). They identify 26 relevant papers and categorise them in three main groups: (1) papers dealing with the influence of organizational culture on BPM; (2) papers concerned with the influence of BPM on organizational culture; and (3) papers claiming the existence of a specific BPM culture. By far, the majority of papers belong to the first group (Grau & Moormann, 2014). The authors find that all 26 papers identify a relationship between organizational culture and BPM, and an explicit need to take this relationship into account. Based on their literature review, Grau and Moormann (2014) develop a framework of the interrelation between process management and organizational culture (Figure 9).

Figure 9. A framework of the interrelation between Process Management and organizational culture



Source: Grau & Moormann, *Investigating the Relationship between Process Management and Organizational Culture: Literature Review and Research Agenda*, 2014, p. 12.

The framework suggests that the organizational culture, which consists of basic assumptions, values and norms, and visible artifacts, is interrelated to process management and that this interrelation may depend on the respective phase of the BPM life cycle (development of a process vision, process design, process implementation, process monitoring, and process

improvement) of the specific BPM initiative. Both BPM and organizational culture then influence the overall performance of a company, which can be measured via a set of Key Performance Indicators (KPIs) based on the company's business processes (Grau & Moormann, 2014).

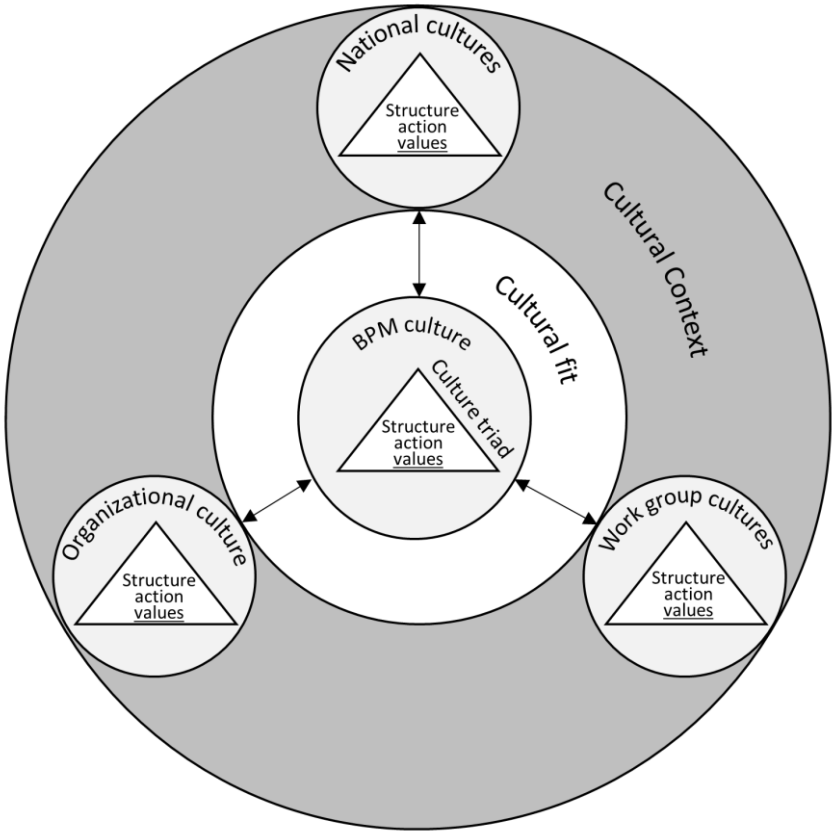
In my research, I adopt the view that organizational culture always exists within an organization, irrespective of BPM adoption. Baird et al. (2011) also make a good point, that "given the embedded nature of culture, the difficulty in changing it and the fact that an organization's culture reflects the combination of the various organizational characteristics and practices adopted, it is unlikely that the implementation of one specific management practice such as TQM [or BPM] would have a substantial impact on an organization's culture". Thus, I approach organizational culture as an independent factor that influences the success of BPM adoption.

3.4.2 The phenomenon of Business Process Management culture and its characteristics

Vom Brocke and Sinnl (2011) develop a framework on culture's role in BPM (The BPM-Culture-Model) based on a systematic literature review (see Figure 10). They derive the so-called culture triad of values, action and structure that seems to have explanatory power with regard to a cultural phenomenon (vom Brocke & Sinnl, 2011). The BPM-Culture-Model identifies four essential constructs that are used to conceptualise the role of culture in BPM (vom Brocke & Sinnl, 2011; vom Brocke & Schmiedel, 2011):

- *BPM culture:* a culture that is supportive of achieving BPM objectives, i.e. efficient and effective business processes. BPM culture is the core of the BPM-Culture-Model.
- *The cultural context:* the particular cultural environment each BPM initiative faces. Typical dimensions driving this context are organizational culture, work group cultures, and national cultures.
- *The cultural fit*: the fit between BPM culture and cultural context that is required for a successful BPM adoption.
- *The culture triad:* values, action and structure. Underlying values are the essential element of a culture and become visible in actions and structures. Actions include manners, observable rituals/ceremonies, and visible behaviour while structures include the physical environment, technology and products, descriptions, and organization charts.

Figure 10. BPM-Culture-Model



Source: vom Brocke & Sinnl, *Culture in Business Process Management: A Literature Review*, 2011, p. 369.

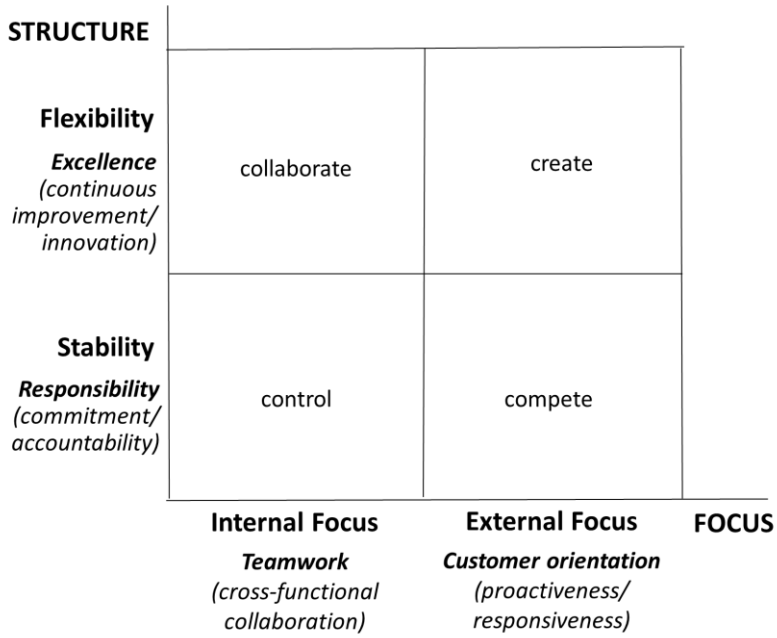
BPM culture is a facet of organizational culture and refers to a certain set of values considered directly supportive of BPM objectives (vom Brocke & Sinnl, 2011). Vom Brocke and Sinnl (2011) identify some exemplary BPM values such as consistency, quality, continuous improvement, customer orientation, process orientation, and responsiveness to change. In a subsequent paper, vom Brocke and Schmiedel (2011) conduct a structured literature review to examine which exact cultural elements make up a BPM culture. They identify seven BPM values that seem to be at the core of a BPM culture. These values are (vom Brocke & Schmiedel, 2011):

- *Cross-functional orientation*: a focus on processes rather than functional departments.
- *Customer orientation*: a focus on customers as the driver and goal of business processes.
- *Quality*: a focus on excellence and optimum performance.
- *Leanness*: a focus on the efficiency of business processes.
- *Continuous improvement*: a focus on the constant revision of extant conditions and processes to eliminate any shortcomings.
- *Innovation*: a focus on creative changes that fundamentally renew business processes and/or their outcomes.
- *Responsibility*: a focus on commitment, inner engagement and duty.

Further research on BPM values was conducted by Schmiedel et al., (2013), which narrowed the list of key cultural values supporting BPM down to four. In their research, values are defined as "what a group considers as desirable, i.e. ideals that influence behavioural and organizational patterns of a group" (Schmiedel et al., 2013). The authors conducted a global Delphi study through which they identified customer orientation, excellence, responsibility and teamwork as four key BPM values (the so-called CERT values). While customer orientation and responsibility are present in both lists, i.e. the literature review by vom Brocke and Schmiedel (2011) and the Delphi study by Schmiedel et al. (2013), teamwork is named differently in the literature review and excellence serves as a higher level category in the list of Delphi CERT values (Schmiedel et al., 2013).

The authors further connect the four CERT values to the characteristics of two CVF dimensions, i.e. focus and structure (Figure 11). They argue that the BPM core value *Customer orientation*, defined as "the proactive and responsive attitude towards the needs of process output recipients", relates to an external focus, whereas *Teamwork*, defined as "the positive attitude towards cross functional collaboration", relates to an internal focus from the perspective of an organization. On the other hand (when looking at the dimension structure), they find that the BPM core value *Excellence*, which refers to "the orientation towards continuous improvement and innovation to achieve superior process performance", emphasises flexibility, and the BPM core value *Responsibility*, defined as "the commitment to process objectives and the accountability for process decisions", relates to stability (Schmiedel et al., 2013).

Figure 11. CERT values (in italics, with brief definitions) in the Competing Values Framework



Source: Schmiedel, vom Brocke & Recker, *Which Cultural Values Matter to Business Process Management? Results from a Global Delphi Study*, 2013, p. 304.

While the four CERT values may be considered opposing, only their simultaneous presence makes up a BPM culture. Thus, successful BPM adoption requires living all four CERT values at the same time (Schmiedel et al., 2013). In the subsequent study, Schmiedel, vom Brocke and Recker (2014) extend the definition of the BPM culture concept from the previous Delphi study, and develop and validate a measurement instrument that facilitates the assessment of the degree to which an organizational culture supports BPM.

In addition to the above-mentioned studies, Bandara et al. (2009) and Alibabaei et al. (2010) describe some cultural characteristics in organizations that seem to provide suitable conditions for the success of a BPM project and identify related means for achieving success (see Table 4).

Table 4. Means for Achieving the Culture Success Factor in Business Process Management Initiatives

Sub-construct of Culture	**Means for achieving success**
Formalism in processes and business planning: Organizations have clearly documented business processes, plans and policies which help them forecast business outcomes and events	- Formal documented business processes - Detailed planning for the future - Documented procedures and policies as well as employees' duties and responsibilities - Inter-organizational communication is based on formal agreements - Decisions are made based on information (facts)
Accepting change and readiness for change: Organizations encourage creativity and changes and employees are considered as a core asset for achieving business objectives	- Tendency to change - Encouraging and rewarding creativity - Direct and explicit communication - Employees are considered the most valuable asset in the organization - Employees trust the managers and are ready to accept changes in their work - Effective solving of issues and conflicts
Abandoning authorities (greater tendency for collaboration): Organizations provide a suitable environment for collaboration between employees and encourage the high involvement of employees, which often abandons the authoritative boundaries between them	- Bottom-to-up and top-to-bottom information streams - Decision-making is not limited to the higher organizational levels - Employees are responsible for their own decisions and are encouraged to work in a team - Employees have an understanding about how their work is integrated into others' efforts and value added

Source: Alibabaei, Aghdasi, Zarei & Stewart, *The Role of Culture in Business Process Management Initiatives*, 2010, p. 2147.

Moreover, Zairi (1997) discusses a BPM culture as a culture based on process management. The author proposes that "the achievement of a BPM culture depends very much on the establishment of total alignment to corporate goals and having every employee's efforts focused on adding value to the end customer". A systematic approach to designing,

prioritising, managing, controlling and monitoring business processes should be established, as well as a culture of continuous improvement based on learning from within and outside the organization (Zairi, 1997). Armistead et al. (1999) recognise BPM culture as a central theme in BPM, emphasising that the approach to BPM should fit with the organization's culture.

Although Kohlbacher and Gruenwald (2011) and Kohlbacher and Reijers (2013) do not specifically mention the term "BPM culture", they discuss the characteristics of an organizational culture in line with the process approach. They cite Hammer (2007), who stated that "only a culture based on teamwork, willingness to change, customer orientation, personal accountability, and a cooperative leadership style goes hand in hand with the process approach" (Kohlbacher & Gruenwald, 2011). Thus, in line with the process approach organizational culture has the following characteristics (adapted from Kohlbacher & Gruenwald, 2011):

- The existence of inter-departmental teamwork: teamwork (also between different departments) can be taken for granted in the organization.
- A customer-focused attitude of employees: employees understand that the purpose of their work is to fulfil the needs of the internal/external customers.
- Employees' accountability for enterprise results: employees feel accountable for the results of the enterprise.
- Employees' attitude to change: changes in how work is performed are accepted by the employees.
- Use of process language: employees at all levels of the organization are speaking about business processes, customers, teams, process performance indicators, etc.
- The existence of an open and collaborative leadership style: employees are empowered and management's leadership style is not based on hierarchical "command and control" but on "negotiate and collaborate".

An additional characteristic of organizational culture in line with the process approach was defined by Kohlbacher and Reijers (2013):

- Process workers' knowledge about process design: employees know how their work affects subsequent work, customers and process performance.

Kohlbacher and Reijers (2013) also find that an organizational culture in line with the process approach is significantly and positively associated with organizational performance. Their findings suggest that "if the culture is in line with the process approach, this seems to be the ultimate predictor for both financial and non-financial firm performance. Organizations which actually live the process approach achieve higher customer satisfaction, higher delivery speed, higher delivery reliability, and higher profitability" (Kohlbacher & Reijers, 2013).

3.4.3 Culture types based on Organizational Culture Assessment Instrument and Business Process Management adoption

There is little research on the relationship between OCAI culture types (Clan, Adhocracy, Hierarchy and Market culture) and BPM adoption. However, some studies address the relationship between these organizational culture types and Total Quality Management (TQM), and these were also included in the literature review. Some of these studies employ a different naming of organizational culture types, namely Clan culture is referred to as Group culture, Adhocracy culture is named Developmental culture, Market culture is Rational culture, and Hierarchy culture is called Hierarchical culture. Putting the different naming to one side, all of these organizational culture types are based on CVF and thus have the same characteristics (i.e. Clan culture has the same characteristics as Group culture, etc.).

Ruževičius et al. (2012) analyse the impact of organizational culture on the success of BPM in the public sector. The authors conducted a survey in order to prove or reject a link between a type of organizational culture and the success of BPM. They use Cameron and Quinn's (2006) classification for organizational culture (OCAI), and the benefits gained in terms of quality-cost-time improvements as measures of BPM success. The authors find that "the Adhocracy type correlates significantly with benefits in the fields of quality and time, and the Market organizational culture type significantly correlates with cost benefits" (Ruževičius et al., 2012). They find no significant correlation between the Clan or Hierarchy culture type and the success of BPM.

Prajogo and McDermott (2005) research the relationship between TQM and organizational culture with the purpose of identifying which particular cultures (i.e. the four culture types of CVF) determine the successful implementation of TQM practices (i.e. leadership, strategic planning, customer focus, information and analysis, people management, and process management). They find that "different subsets of TQM practices are determined by different types of cultures" (Prajogo & McDermott, 2005). The results of their study show that three organizational culture types (Clan, Market and Adhocracy) have a significant relationship with TQM practices, with Clan culture being the dominant one, followed by the Market and Adhocracy cultures. In contrast, the Hierarchy culture does not show a significant relationship with TQM practices (Prajogo & McDermott, 2005). The authors also discuss different views on the relationship between TQM and culture, namely the "unitarist" view where the underlying principle is that TQM thrives only in a single, identifiable culture, and the "pluralist" view, which supports the ideas of the heterogeneity of various cultural dimensions on which TQM should be built. Their results support the pluralist view of the TQM/culture relationship, which "is more multi-dimensional, with different cultural characteristics in turn being associated with different elements of TQM" (Prajogo & McDermott, 2005).

Prajogo and McDermott (2011) examine the relationship between the four organizational culture types of CVF and four types of performance, namely: product quality, process quality, product innovation, and process innovation. They find that Adhocracy culture has the

strongest relationship with product quality, product innovation and process innovation, whereas Market culture shows a relationship with product and process quality. Clan and Hierarchy cultures were also found to predict process quality (Prajogo & McDermott, 2011).

Dellana and Hauser (1999) examine the relationship between TQM and organizational culture. The authors conducted a survey among members of the American Society for Quality to determine which culture type (based on CVF) is associated most with successful TQM programmes. For assessing the TQM success they used the Baldrige Award criteria, comprising seven categories, namely leadership, information and analysis, strategic quality planning, human resource development and management, management of process quality, quality and operational results, and customer focus and satisfaction. Their findings suggest that TQM success is positively correlated to the Clan and Adhocracy culture types and negatively correlated to the Hierarchy and Market culture types. Adhocracy culture was found to be most strongly linked to TQM success with the highest Baldridge scores, followed by Clan culture. The authors conclude that "the ideal cultural profile for supporting TQM may be characterized to a degree by the Adhocracy culture type, and secondarily by the Group culture type" (Dellana & Hauser, 1999).

Yong and Pheng (2008) research the relationship between organizational culture and the implementation of TQM practices (i.e. top management leadership, customer management, people management, supplier management, continual improvement, process management, organizational learning, and quality information management). They find they are mutually dependent and that organizational culture "constrains" how TQM practices are implemented in organizations, meaning that the organization selects TQM practices that are consistent with its existing culture. The authors find that "TQM practices of organizations with different dominant cultural types are significantly different, and that these TQM practices are differentially emphasized". Organizations with a Clan culture highly implement the element of process management while organizations with a Hierarchy culture implement lowly to moderately all elements (Yong & Pheng, 2008). Further, they claim that "only those TQM practices congruent with the organizational culture are retained over time". TQM practices are better implemented in an area where there is an alignment between the values associated with the practices and the dominant organizational culture (Yong & Pheng, 2008). They recommend changing the organizational culture in order to be more supportive of TQM practices, and/or adapting the TQM practices to better suit the dominant organizational culture. However, since changing the organizational culture is a long-term endeavour, organizations can adopt a short-term strategy and adapt their TQM practices in such a way that relatively quick results can be attained (Yong & Pheng, 2008).

Gambi et al. (2015) investigate the relationship between organizational culture and the use of quality techniques, and its impact on operational performance. For this, they use four cultural profiles adopted from the CVF, four quality technique groups, and a set of operational performance indicators. The authors argue that organizational culture affects the use of quality techniques as they find that "the relationship between organizational culture and quality

techniques varies across different cultural profiles and quality technique groups" (Gambi et al., 2015). They find that continuous improvement techniques are supported in the Clan, Adhocracy and Market cultures, but not in the Hierarchy culture. On the other hand, they find Market and Hierarchy culture to be positively associated with measurement techniques, whereas the relationship between Clan culture and measurement techniques is negative.

Table 5 summarises the information on the above-mentioned studies, including information about the publications, samples, methods, analyses and variables used.

Table 5. Information on the papers discussing Business Process Management/Total Quality Management in connection to different culture types

Author(s), year	Publication	Method and sample	Analysis	Variables
Dellana & Hauser, 1999	Engineering Management Journal	Survey among 1,000 members of the American Society for Quality (219 usable responses were received and analysed)	Statistical analysis: covariance models (ANCOVA, MANCOVA), correlation analysis	*Organizational culture (independent variable):* four culture types based on CVF (group, adhocracy, rational and hierarchical) *TQM success (dependent variable):* the Baldrige Award criteria, comprising seven categories (leadership, information and analysis, strategic quality planning, human resource development and management, management of process quality, quality and operational results, and customer focus and satisfaction) *Controlling variables:* industry, company size, TQM programme age
Prajogo & McDermott, 2005	International Journal of Operations & Production Management	Random survey of 1,000 middle and senior managers in Australia (a total of 194 managers responded)	Structural equation modelling (SEM), Pearson's correlation	*Organizational culture (independent variable):* four culture types based on CVF (group, developmental, hierarchical and rational) *Implementation of TQM practices in organizations (dependent variable):* the Malcolm Baldrige National Quality Award (MBNQA) criteria, comprising six constructs (leadership, strategic planning, customer focus, information and analysis, people management, and process management) *Controlling variables:* industry sector, organization size (in terms of number of employees), respondent's position in the company (e.g. quality manager, finance manager, etc.)
Yong & Pheng, 2008	Construction Management and Economics	Survey among 145 certified medium- to large-sized local contractors in Singapore (56 responses were received and analysed)	Statistical analysis: a series of ANOVAs	*Organizational culture (independent variable):* four culture types identified from the survey findings (strong comprehensive, clan-driven, hierarchy-driven, and weak comprehensive culture) *Implementation of TQM practices among contractors (dependent variable):* eight TQM elements (top management leadership, customer management, people management, supplier management, continual improvement, process management, organizational learning, and quality information management)

(table continues)

(continued)

Author(s), year	Publication	Method and sample	Analysis	Variables
Prajogo & McDermott, 2011	International Journal of Operations & Production Management	Mail survey of 1,000 middle and senior managers of Australian firms (a total of 194 managers responded)	Structural equation modelling (SEM), preliminary correlation analysis (Pearson's correlation)	*Organizational culture (independent variables):* four culture types based on CVF (group, developmental, hierarchical and rational) *Four performance measures (dependent variables):* product quality, process quality, product innovation and process innovation *Controlling variables:* industry sector (manufacturing versus non-manufacturing), organization size (in terms of number of employees)
Ruževičius et al., 2012	Current Issues of Business and Law	Survey among the quality departments of 70 public sector organizations certified according to ISO 9001 (40 replies were received)	Statistical analysis: means comparison, Friedman's test, Spearman's correlation	*Organizational culture (independent variable):* four culture types based on the OCAI (clan, adhocracy, market and hierarchy) *Measures of BPM success (dependent variables):* the benefits gained in terms of quality-cost-time improvements
Gambi et al., 2015	International Journal of Operations & Production Management	Web-based survey among a random sample of 1,761 Brazilian and Danish manufacturing firms (250 firms responded)	Structural equation modelling (SEM)	*Organizational culture (independent variable):* four cultural profiles adopted from the CVF (group, developmental, hierarchical and rational) *Four quality technique groups (dependent variables):* goal setting, continuous improvement, measurement, failure prevention/control *A set of operational performance indicators (dependent variables):* customer satisfaction, productivity, cost, time, number of customer complaints, number of defects *Controlling variables:* industry sector (manufacturing firms), organization size (in terms of number of employees), respondent's position in the company (e.g. quality manager, production manager, etc.)

3.4.3.1 Clan culture and Business Process Management adoption

Yong and Pheng (2008) find that high implementation levels of the TQM elements are noticeable in a clan-driven culture. They find that organizations with a clan-driven culture have a high implementation level of process management. "The promotion of a cooperative spirit within the organization facilitates the implementation of process management, willingness and ability of organizational members to learn" (Yong & Pheng, 2008).

Prajogo and McDermott (2005) find that Clan culture appears to be the most dominant of the four culture types and has the strongest relationship with six TQM practices. Cultures considered suitable for TQM practices are typically those related to a flexible and people-oriented style where employees are valued and empowered (Prajogo & McDermott, 2005). TQM practices, such as leadership, employee involvement and empowerment, teamwork, customer focus and continuous improvement, are the reflection of people-centred and flexible cultures and will be best implemented where such cultures prevail (Prajogo & McDermott, 2005).

In their subsequent research, Prajogo and McDermott (2011) find a positive correlation between Clan culture and process innovation as well as between Clan culture and process quality. They find that both process innovation and process quality require flexibility and an internal focus (to target internal processes), which best fits with the characteristics of Clan culture. "This finding suggests that having flexible-oriented culture is important in improving the internal aspect of quality and innovation. Such attitudes as teamwork, participation and empowerment have been recognized as playing important role in ensuring the success of process improvement as well as implementation of new process technologies" (Prajogo & McDermott, 2011).

Baird et al. (2011) find that teamwork (a characteristic of Clan culture) is the most important factor for enhancing the use of TQM practices as it facilitates process ownership and encourages collaborative and cooperative behaviour. They find that "organizations promoting collaborations between work units and divisions, and which value the rights of individual employees are more likely to use TQM practices to a greater extent, since TQM can be more easily implemented in working environments that encourage collaborative and cooperative behaviour" (Baird et al., 2011). Dellana and Hauser (1999) also find that TQM success is positively correlated to the Clan culture type.

Rad (2006) finds that for TQM programmes to succeed, a collaborative culture characterised by honesty, trust, openness, creativity, and employee empowerment should be developed. Moreover, decentralisation and participation in management should be considered, which would improve employees' involvement, communication and participation in decision-making (Rad, 2006).

In contrast to the above-mentioned studies, Ruževičius et al. (2012) find no significant correlation between the Clan organizational culture and BPM success in terms of quality, cost

or time improvements. Gambi et al. (2015) also find different results regarding Clan culture and the use of quality techniques. They find Clan culture to be positively related with the use of continuous improvement techniques and negatively associated with the use of measurement techniques.

3.4.3.2 Adhocracy culture and Business Process Management adoption

Baird et al. (2011) find that innovative organizations (i.e. organizations with an Adhocracy culture) are more likely to adopt TQM practices and use them to a greater extent. Innovation is highly valued and refers to an organization's receptivity and adaptability to change (O'Reilly, Chatman & Caldwell, 1991, adopted from Baird et al., 2011).

Prajogo and McDermott (2005) find that Adhocracy culture is positively associated with TQM practices. In their later study (i.e. Prajogo & McDermott, 2011), they find Adhocracy culture is significantly related to process innovation and the strongest predictor of performance among the four cultural types. Similarly, Dellana and Hauser (1999) find a positive relationship between an Adhocracy organizational culture and the management of process quality. Likewise, Gambi et al. (2015) find Adhocracy culture is positively related to the use of continuous improvement techniques.

In addition, Schmiedel et al. (2013) find Adhocracy culture to be a culture that particularly supports the achievement of BPM objectives. They identify an organization's ability to adapt to changing environments as a major determinant of BPM success. However, "a sole focus on a create culture [i.e. Adhocracy culture] would not be supportive of BPM in the long run" (Schmiedel et al., 2013).

Adhocracy culture is also mentioned in the study by Wong et al. (2014) as a culture that facilitates BPM adoption, although the authors do not mention any of the other three organizational culture types.

Ruževičius et al. (2012) find that the Adhocracy organizational culture type has an important impact on the quality and time aspects of BPM success. Organizations dominated by the Adhocracy organizational culture type tend to achieve greater success in the field of quality and time after BPM implementation (Ruževičius et al., 2012).

Dellana and Hauser (1999) find that TQM success is positively correlated to the Adhocracy culture type and that the Adhocracy culture appears to be "the ideal cultural profile for supporting TQM". Organizations with a dominant Adhocracy culture had the highest scores for TQM success, significantly higher than the other three organizational culture types (Dellana & Hauser, 1999).

3.4.3.3 Market culture and Business Process Management adoption

Prajogo and McDermott (2005, 2011) find that Market culture is positively related to process quality. "This is because quality is often defined in terms of conformance, and such conformance requires a standardized and stable process to ensure consistency of its outputs"

(Prajogo & McDermott, 2011). Gambi et al. (2015) find that Market culture has the strongest positive relationships with the use of quality techniques out of all four organizational culture types.

Baird et al. (2011) claim that outcome-oriented organizations (such as organizations with a Market culture) are expected to focus on improving product/service quality and are thus more likely to implement TQM practices in order to enhance their competitive advantage. They find that the organizational cultural dimension *outcome orientation* is significantly and positively associated with quality data and reporting. However, the authors find no significant association between quality data and reporting and process management. They thus conclude that "the outcome-oriented focus of organizations results in greater emphasis being placed on the final results as opposed to the processes used to achieve such results" (Baird et al., 2011).

Ruževičius et al. (2012) find that the Market organizational culture type has a strong influence on BPM success in the area of costs and that organizations with a dominant Market culture achieve the greatest success in lowering the costs after the implementation of BPM. On the contrary, Dellana and Hauser (1999) find that TQM success is negatively correlated with the Market culture type.

3.4.3.4 Hierarchy culture and Business Process Management adoption

Prajogo and McDermott (2011) find that Hierarchy culture is positively related to process quality. "This is because quality is often defined in terms of conformance, and such conformance requires a standardized and stable process to ensure consistency of its outputs" (Prajogo & McDermott, 2011). Prajogo and McDermott (2005) also find that certain TQM practices, namely strategic planning, information and analysis, and process management correlate highly with Hierarchy culture. They indicate that structural and formal approaches, which characterise several TQM practices, positively and significantly predict quality management practices (Prajogo & McDermott, 2005). Likewise, Gambi et al. (2015) find Hierarchy culture to be positively associated with the use of measurement techniques.

On the other hand, Alibabaei et al. (2010) find that "Hierarchical organizations have different policies and procedures that are clearly in contrast with business process concepts". Yong and Pheng (2008) also find that firms with a Hierarchy-driven culture lowly to moderately implement all TQM practices.

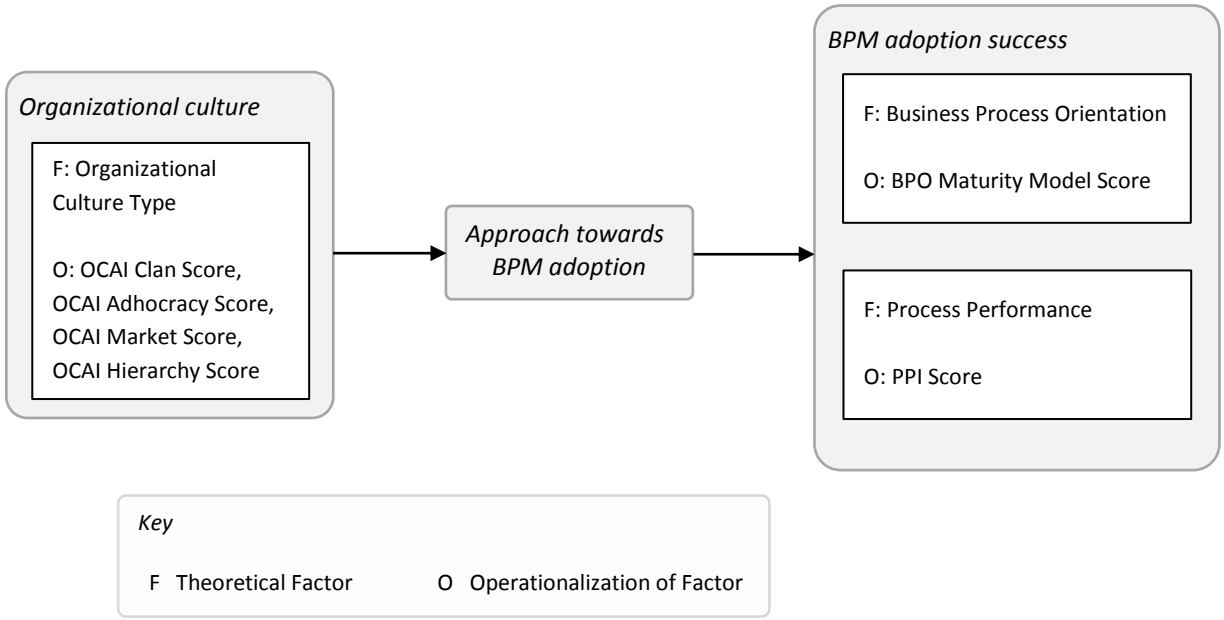
Ruževičius et al. (2012) find no significant correlation between a Hierarchy organizational culture and BPM success in terms of quality, cost or time improvements. They claim that a Hierarchy culture is not the best way to achieve success with BPM adoption and in organizational efficiency. In addition, Dellana and Hauser (1999) find that TQM success is negatively correlated to the Hierarchy culture type.

3.4.4 Framework

Based on the literature review, a conceptual framework is developed that connects organizational culture with success in BPM adoption through the approach towards BPM adoption. The point of view in this study is that for BPM adoption to be successful "the approach to BPM should fit with the culture of the organization" (Armistead & Machin, 1997; Armistead et al., 1999; Kohlbacher & Gruenwald, 2011). Since organizational culture cannot be changed in a short period of time (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004; Zucchi & Edwards, 1999) and changing it is very difficult (Lee & Dale, 1998), the approach towards BPM adoption needs to be adapted to suit the existing organizational culture.

A framework showing the relationship between organizational culture, the approach towards BPM adoption and the success of BPM adoption is presented in Figure 12. The framework proposes that organizational culture (the combination of Clan, Adhocracy, Market and Hierarchy culture) influences the approach towards BPM adoption, which then impacts the success of BPM adoption (measured in terms of BPO and PPI).

Figure 12. A framework for the relationship between organizational culture, the approach towards Business Process Management adoption, and the success of Business Process Management adoption



3.5 Discussion

3.5.1 Summary of the findings

The results of the literature review show that all of the papers identified as relevant to the research discuss the relationship between organizational culture and BPM, and identify an important connection between these two concepts which needs to be taken into account.

However, only a few papers were found that elaborate on the role of different organizational culture types in BPM initiatives, and no paper directly considers the quantitative correlation between the culture types and process performance.

The literature suggests that different organizational cultural types have varying impacts on the BPM initiative (see Table 6). All studies included in the literature review conclude that the Adhocracy culture seems to be appropriate, or even ideal for adopting BPM. The Clan culture is also recognised as one of the most appropriate organizational culture types. With the exception of the study by Ruževičius et al. (2012), which finds no significant correlation between the Clan organizational culture and BPM success, all other authors agree that the Clan culture appears to fit with BPM. Flexibility (a characteristic of both the Clan and Adhocracy cultures) is therefore an important cultural dimension, which seems to be in line with BPM.

On the other hand, there are somewhat different and even contradictory findings in the literature concerning the Hierarchy and Market cultures. For example, Prajogo and McDermott (2005, 2011) find that Market culture is positively related to process quality, and Ruževičius et al. (2012) find it has a strong influence on BPM success in the area of costs, whereas Dellana and Hauser (1999) find that TQM success is negatively correlated to the Market culture type. Similarly, Prajogo and McDermott (2005) find that certain TQM practices (i.e. strategic planning, information and analysis, and process management) highly correlate with Hierarchy culture, and that Hierarchy culture is positively related to process quality (Prajogo & McDermott, 2011). On the contrary, Dellana and Hauser (1999) establish that TQM success is negatively correlated to the Hierarchy culture type, Alibabaei et al. (2010) identify hierarchical organizations as "clearly in contrast with business process concepts", and Ruževičius et al. (2012) claim that the Hierarchy culture is not the best way to achieve success in adopting BPM and in organizational efficiency.

Table 6. Relationship between different organizational culture types and Business Process Management/Total Quality Management adoption

Relationship	Reference
Clan culture has a positive relationship with BPM/TQM adoption.	Yong & Pheng, 2008; Prajogo & McDermott, 2005, 2011; Baird et al., 2011; Dellana & Hauser, 1999; Rad, 2006
There is no significant correlation between Clan culture and BPM success.	Ruževičius et al., 2012
Adhocracy culture has a positive relationship with BPM/TQM adoption.	Baird et al., 2011; Prajogo & McDermott, 2005, 2011; Dellana & Hauser, 1999; Schmiedel et al., 2013; Wong et al., 2014; Ruževičius et al., 2012
Market culture has a positive relationship with BPM/TQM adoption.	Prajogo & McDermott, 2005, 2011; Baird et al., 2011; Ruževičius et al., 2012
Market culture has a negative relationship with BPM/TQM adoption.	Dellana & Hauser, 1999
Hierarchy culture has a positive relationship with BPM/TQM adoption.	Prajogo & McDermott, 2005, 2011
Hierarchy culture has a negative relationship with BPM/TQM adoption.	Alibabaei et al., 2010; Yong & Pheng, 2008; Dellana & Hauser, 1999
There is no significant correlation between Hierarchy culture and BPM success.	Ruževičius et al., 2012

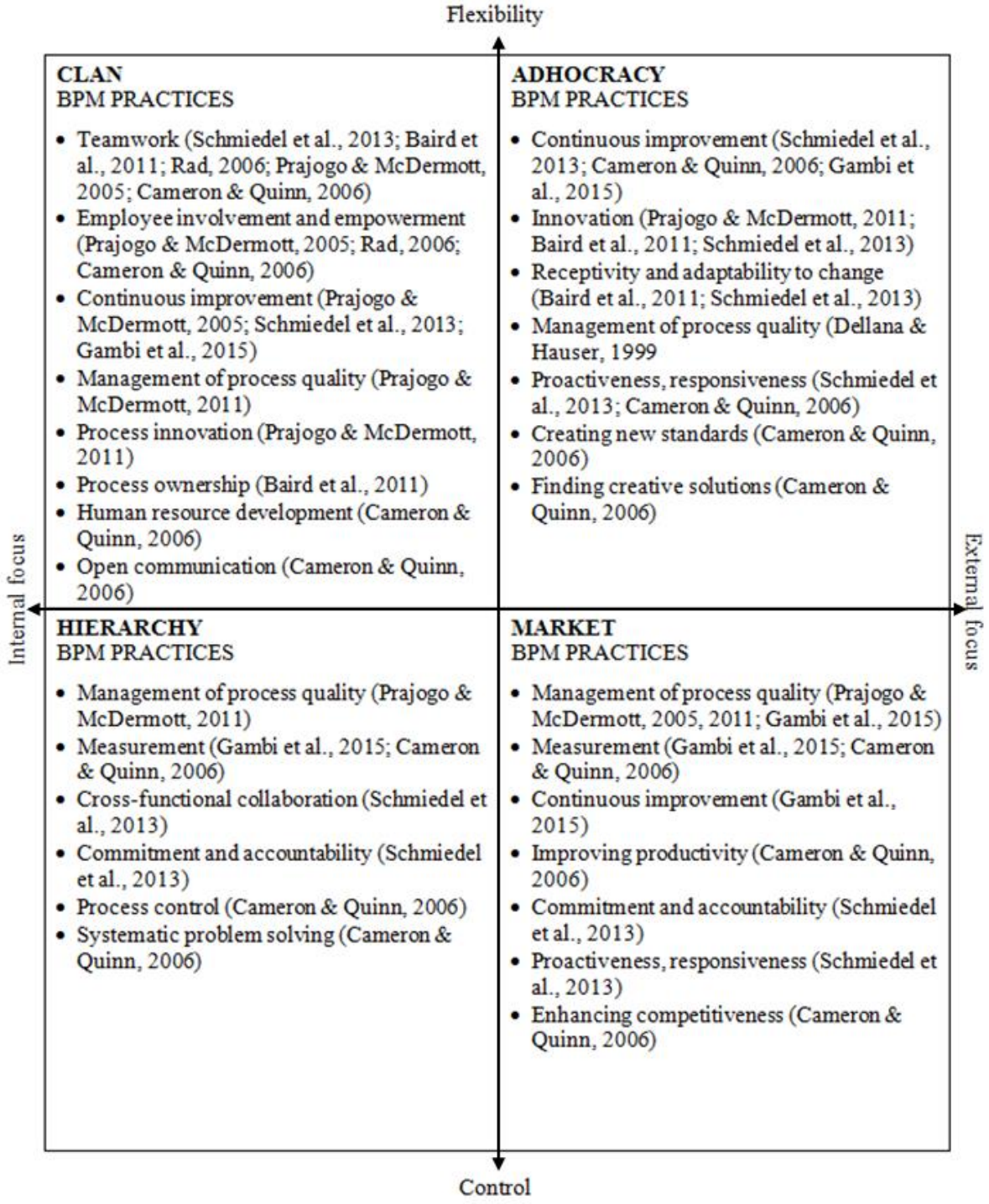
Several authors (e.g. Prajogo & McDermott, 2005, 2011; Yong & Pheng, 2008; Schmiedel et al., 2013) agree that the relationship between organizational culture and BPM/TQM is "multi-dimensional", meaning that different cultural characteristics are associated with different elements of BPM. Rather than an organization reflecting only one culture, a combination of the four organizational culture types is expected to be found. Seemingly opposite cultural dimensions can mutually exist in an organization (Prajogo & McDermott, 2011). In fact, Yong and Pheng (2008) find that the cultural orientation of an organization should be balanced across the four cultural ideal types. This is also in line with the findings of Schmiedel et al. (2013) who identify four opposing BPM values (i.e. CERT values: customer orientation, excellence, responsibility and teamwork) and find that only their simultaneous presence makes up a culture supportive of BPM objectives.

3.5.2 Fit between organizational culture profiles and specific BPM adoption practices

Findings from the literature review indicate that certain BPM practices are better implemented where there is an alignment between the values associated with the practices and the organizational culture. Organizational culture is found to "constrain" how these practices are implemented in organizations, meaning that the organization selects those practices that are consistent with its existing culture (Yong & Pheng, 2008).

Based on the findings from previous studies I make several propositions regarding which BPM practices might be fitting with each culture profile. Figure 13 presents the assumed fit between organizational culture profiles and specific BPM adoption practices.

Figure 13 Assumed fit between organizational culture profiles and specific Business Process Management adoption practices



For example, it is proposed that BPM practice *continuous improvement* is fitting with Clan, Adhocracy and Market culture profiles, *process innovation* is in line with Clan and

Adhocracy culture profiles, whereas *measurement* appears to fit better with Market and Hierarchy culture profiles. Practices that are referred to in previous studies and seem to be in line with Clan culture profile are teamwork, employee involvement and empowerment, continuous improvement, process quality, process innovation, process ownership, human resource development and open communication. I propose that these practices are better implemented in organizations with Clan culture profile. Similar propositions are made also regarding which practices are fitting with the other three organizational culture profiles.

These propositions are merely theoretical and are based on findings from previous studies. The propositions assume which specific practices are better implemented in each of the culture profiles. Future research should address these propositions and show whether the specific BPM practices really fit with the selected organizational culture profiles.

3.5.3 Implications, limitations and future research

This study presents a structured literature review on BPM adoption in connection to organizational culture, specifically with regard to the different types of organizational culture defined by Cameron and Quinn (2006). Although two literature reviews on the topic of culture in BPM have already been published (i.e. the reviews by vom Brocke & Sinnl, 2011 and Grau & Moormann, 2014), this literature review is the only one that focuses on different types of organizational culture and their relationship with BPM adoption. Thus, it extends existing research on this topic. Further, a conceptual framework is proposed that connects organizational culture with the BPM adoption success through the approach towards BPM adoption. The framework can be used as a basis for future research on BPM adoption in connection to different organizational culture types. In addition, it provides a better understanding of the relationship between organizational culture, the approach towards BPM adoption and BPM adoption success.

However, there are some important limitations regarding the design of the literature review. First, the initial focus was solely on the concept of BPM. However, due to the small number of relevant papers found (especially regarding different organizational culture types in connection to BPM), the search strategy was adapted such that the literature review also included some papers addressing the concept of TQM. With regard to organizational culture, the focus of the literature review was on this specific concept. However, not all researchers examining cultural issues in BPM may use the term culture. Further, regarding the organizational culture types, the focus was specifically on the types of organizational culture as defined by Cameron and Quinn (2006) or the CVF. In addition, not all sources may have been covered in the search strategy. This became obvious when I came across four more relevant papers, which were later included in the literature review.

While previous studies have established the importance of organizational culture for the success of BPM adoption, future research could focus more on different organizational culture types and their relationship with BPM adoption. Specifically, it would be interesting to study if and how the success of BPM adoption varies under different organizational

cultures and which characteristics of organizational culture are the most appropriate when adopting BPM. From the findings of previous studies it can be expected that certain organizational culture types fit better with BPM (for example the Clan and Adhocracy cultures), and other organizational culture types are less suitable for BPM adoption (for example the Hierarchy culture). Thus, future research could verify these assumptions, and focus further on the approach to BPM adoption. As Armistead and Machin (1997) already pointed out, the approach to BPM needs to fit initially with the culture of the organization and culture drives the appropriate initial approach to BPM adoption. Future research could study how to approach BPM adoption in an organization depending on its organizational culture. This is especially important for those organizational culture types that are less supportive of BPM adoption.

3.6 Conclusion

The purpose of this chapter was to review the main research findings on BPM adoption with regard to the different types of organizational culture defined by Cameron and Quinn (2006). I find there is a gap in the empirical literature directly examining the correlation between culture types and process performance. Only a few papers were found that discuss the relationship between different organizational culture types and BPM adoption. However, the papers that do cover this topic all seem to agree that there are significant differences in how different culture types impact BPM adoption, although with somewhat different results regarding what kind of impact each organizational culture type has.

Based on the structured literature review, a framework is proposed that connects organizational culture with BPM adoption success through the approach to BPM adoption. The framework can serve as a starting point to structure future research on this topic, which is necessary to gain a better understanding of the relationship between different organizational culture types and BPM adoption.

4 QUANTITATIVE STUDY OF THE CONNECTION BETWEEN ORGANIZATIONAL CULTURE AND SUCCESS OF BUSINESS PROCESS MANAGEMENT ADOPTION[2,3]

ABSTRACT

Organizational culture has been described as one of the most important factors in BPM adoption as it is reported to support or hinder BPM efforts in an organization. However, this proposition is still hardly backed up by empirical research. The aim of this chapter is to provide a better understanding of the contingent role organizational culture can play for the success of BPM adoption. To this end, a survey design is used to evaluate the correlation of organizational culture and the success of BPM adoption. The survey was distributed among top managers and (where applicable) process owners in organizations with more than 50 employees in Slovenia. The results reveal that the highest level of BPM adoption success is achieved in organizations with the Clan culture type, whereas organizations achieving the lowest level of BPM adoption success appear to have a Hierarchy culture, as measured by the culture classification of Cameron and Quinn (2006). A significantly negative correlation has been found between the Hierarchy culture type and all aspects of BPM adoption success. These insights provide a foundation for the further study of how organizational culture affects BPM adoption success in detail.

Keywords: organizational culture, BPM adoption, success, empirical study

4.1 Introduction

Business processes are a core part of every organization, and managing the business processes is considered to be among the top priorities of many organizations. However, many organizations fail in their attempt to successfully adopt Business Process Management (BPM) (Trkman, 2010). The question of why certain projects succeed and others fail is an important area of research (Grisdale & Seymour, 2011; Alibabaei et al., 2010; Bandara et al., 2009).

Several studies state that organizational culture might have a significant impact on BPM adoption (e.g. Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010) or that it might be connected with failure and success (Melenovsky & Sinur, 2006; Bandara et al., 2009; Ravesteyn & Versendaal, 2007). However, vom Brocke and Sinnl (2011) find that only a few articles discuss or study the role of culture

[2] This section of the dissertation was presented at the international conference ECIS 2014 as part of the works published in conference proceedings, namely Hribar, B. & Mendling, J. (2014). The correlation of organizational culture and success of BPM adoption. *Proceedings of the 22nd European Conference on Information Systems (ECIS 2014), Tel Aviv, Israel*.

[3] The study presented at the international conference ECIS 2014 only covered the data gathered in Slovenia. However, the empirical research on the correlation between organizational culture and BPM adoption success has since been repeated in Croatia, where similar results were obtained. In this section of the dissertation, also the results for Croatia are shown, although they are not part of the original paper. The Croatian data are clearly marked and only appear in sections 4.4.3 and 4.6.

in BPM research. Empirical research on this topic is necessary to gain a better understanding of the role organizational culture plays in the success of BPM adoption.

In this chapter, organizational culture is investigated as a contingent factor of BPM adoption success. This proposition is based on the assumption that certain organizational culture types might be more favourable and others less favourable for BPM adoption. This assumption builds on observations in previous studies such as (Alibabaei et al., 2010). More specifically, it is argued that organizations' cultural characteristics may provide either suitable conditions or hindrances for the success of BPM adoption (Bandara et al., 2009). Certain values are also mentioned as being supportive of BPM objectives or as road blocks (vom Brocke & Sinnl, 2011). However, these assumptions have not yet been subject to a quantitative investigation. The contribution of this chapter is therefore its provision of survey results that help to judge the viability of a potential connection between organizational culture and BPM adoption success.

In line with these observations, the aim of the study is to find out which organizations, depending on their dominant culture type, are more or less successful with adopting BPM. More precisely, the research question this study aims to answer is:

RQ. *How does the success of BPM adoption vary between different types of organizational culture?*

To this end, a survey design is used in order to investigate correlations. The findings suggest that the Hierarchy culture appears to be less supportive of BPM adoption success.

The chapter is structured as follows: Section 4.2 provides the research background and defines the key concepts. Section 4.3 presents the research model and hypotheses. Section 4.4 describes the research design and Section 4.5 the results of the empirical research. Section 4.7 summarises the findings and highlights implications for research and practice, together with limitations of the study. Section 4.8 concludes the chapter.

4.2 Background

In this section, the background of the research is discussed. The concepts BPM, BPM adoption, and organizational culture as a factor of BPM adoption are described.

4.2.1 Business Process Management

Business Process Management (BPM) has been one of the top 10 issues for CIOs since 2005, yet with varying emphasis (Reiter et al., 2010). The definitions of BPM and viewpoints in terms of its content and extent range from a focus on IT (Harmon, 2003) to BPM as a holistic management approach (Armistead et al., 1999; Rosemann & de Bruin, 2005a; Reiter et al., 2010). BPM definitions often emphasise the analysis and improvement of business processes (Rosemann & de Bruin, 2005a). In addition, 'process thinking' has been stressed as a focal point (Grover et al., 2000).

For the purpose of this chapter, BPM is defined as an approach for managing an organization from a process perspective (de Bruin & Doebeli, 2010). It requires the consideration of various aspects in order to be successfully and sustainably adopted, including strategic alignment, governance, methods, information technology, people, and culture (Rosemann & vom Brocke, 2010). It includes a strategic and an operational perspective, and requires the use of modern techniques and the involvement of people in order to effectively satisfy customer needs (Zairi, 1997). If successfully adopted, BPM can bring significant benefits to the organization such as a better understanding of its business processes, greater control, improved business performance (Škrinjar et al., 2008) and an agile adaptation to changing business requirements (Neubauer, 2009).

4.2.2 Business Process Management adoption

The term *BPM adoption* has not yet been clearly defined in the literature. Therefore, it can be understood in different ways. For the purpose of this chapter, BPM adoption is defined as *the use and deployment of BPM concepts in organizations* (Reijers et al., 2010). These concepts range from governance structures, role definitions and performance indicators to modelling tools and redesign techniques (Dumas et al., 2013). BPM adoption is recognised as a complex process that requires effort, time, resources and discipline. Because of its scope, BPM adoption is likely to trigger widespread organizational changes. Organization-wide BPM adoption tends to go through multiple stages, such as: (1) awareness and understanding of BPM; (2) the desire to adopt BPM; (3) setting up, executing and monitoring BPM projects; (4) converting BPM projects into a BPM programme; and (5) ensuring that all BPM-related activities are consistently delivered in a cost-effective way (Rosemann, 2010).

4.2.3 Organizational culture as a factor of Business Process Management adoption

One of the key factors discussed as an important success factor in BPM adoption is organizational culture. Culture is composed of values, beliefs, attitudes and behaviours (Hofstede, 1993; Schein, 1996). Organizational culture provides unwritten and unspoken rules for how to get along in the organization and conveys a sense of identity to employees (Cameron & Quinn, 2006).

Organizational culture is an emerging topic of high relevance to both academia and practitioners in business and IT (Reiter et al., 2010) and is considered to be important when organizations are trying to improve their organizational performance by changing their business processes (Škerlavaj et al., 2007; Clemons et al., 1995; Guimaraes, 1997; Terziovski et al., 2003). Any company choosing to adopt change concepts must redefine its culture to some extent (Lewis, 1996; Abraham et al., 1997; Pool, 2000; Kekäle et al., 2004), which makes its success dependent on the organizational culture (Laszlo, 1998; Prajogo & McDermott, 2005). Although culture is commonly considered a “soft-factor”, its strong impact on the success of BPM adoption has been established (de Bruin, 2009).

Despite its relevance, culture is mostly superficially covered in the literature as one aspect out of many relevant to BPM, with little research systematically addressing culture in the BPM context (vom Brocke & Schmiedel, 2011). Vom Brocke and Sinnl (2011) provide a summary of how culture is perceived in BPM research. They identify the following four relationships (vom Brocke & Sinnl, 2011):

- *Culture as an independent factor influencing BPM*: culture is perceived as a success factor or a barrier for BPM.
- *Culture as a dependent factor influenced by BPM*: BPM systems or general BPM initiatives are recognised as affecting culture through structural changes.
- *Culture as a BPM culture*: BPM culture generally describes a culture supportive of BPM objectives and can be understood as a specific aspect of an organizational culture.
- *Culture as an aspect of BPM*: BPM requires attention to culture.

All of these prior works emphasise the importance of organizational culture for BPM adoption success; however, they do not explicitly examine this connection by using statistical methods.

4.3 Research model and hypotheses

In this section, a research model is developed for studying the connection between organizational culture and BPM adoption success. First, it is described which organizational culture types exist according to the selected measurement model. Second, the measurement of BPM adoption success is discussed. Finally, the research model is presented. The point of view of this study is that organizational culture always exists within an organization, irrespective of BPM adoption. Therefore, organizational culture is approached as an independent factor that influences the success of BPM adoption.

4.3.1 Organizational Culture Assessment Instrument

A well-established instrument for measuring organizational culture is the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (2006). This instrument diagnoses the dominant orientation of an organization based on four core culture types: Clan, Adhocracy, Market and Hierarchy.

Clan culture is characterised by a friendly workplace where teamwork and employee development are emphasised and the organization promotes loyalty, tradition, participation and commitment. *Adhocracy culture* is characterised by a dynamic, entrepreneurial and creative working environment where people take risks and value innovation, agility and experimentation. Such organizations stress the acquisition of new resources, creating new opportunities and rapid growth. *Market culture* is a results-oriented workplace focused on goals and creating a competitive advantage. The main values that dominate market-type organizations are profitability, competitiveness, productivity and goal achievement. *Hierarchy culture* is characterised by a formal work environment where structure, control,

coordination and efficiency are emphasised and procedures govern people's activities. Stability, predictability and efficiency characterise the long-term concerns of this organization (summarised from Cameron & Quinn, 2006).

4.3.2 Business Process Management adoption success

To be able to draw conclusions on the success of BPM adoption, it first needs to be operationalised on a measurable level. The literature offers general definitions of BPM adoption success, such as *continuously meeting pre-determined goals* (Trkman, 2010) and *sufficiently satisfying intended goals of the BPM initiative* (Bandara et al., 2009). However, there has been criticism that a comprehensive definition is still missing (Trkman, 2010).

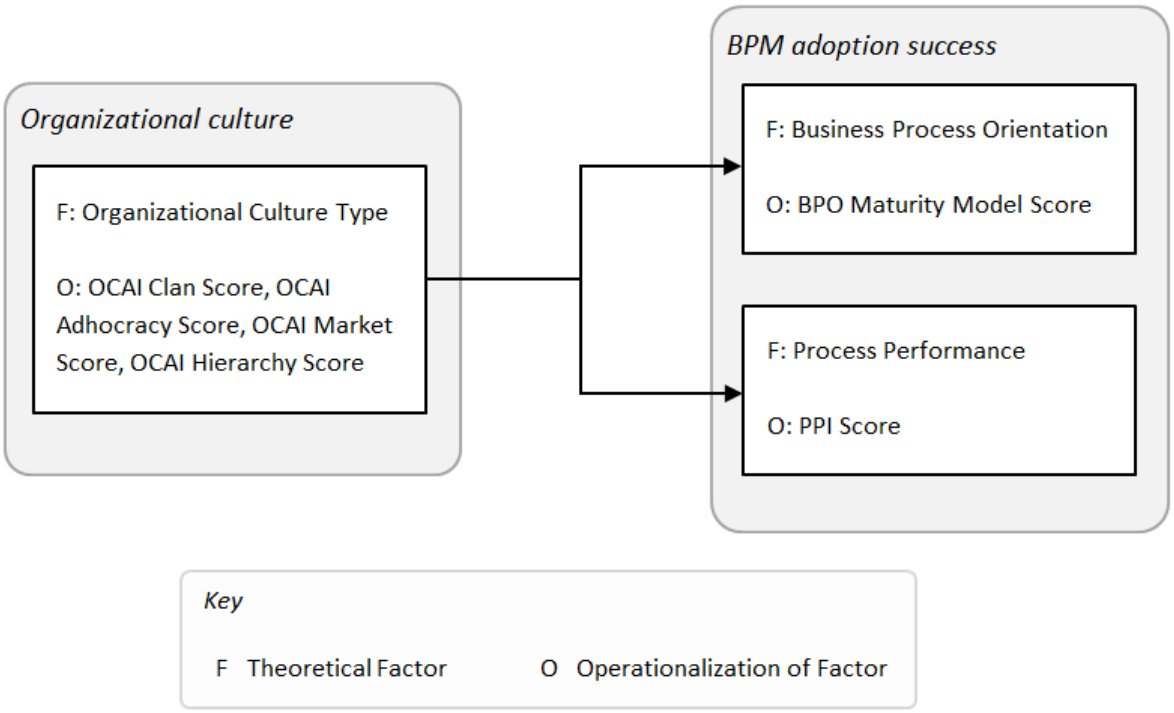
Due to this absence of an instrument, I follow Škrinjar and Trkman (2013), Thompson et al. (2009) and Dabaghkashani et al. (2012) in their use of proxies to measure the success of BPM adoption. For this study, the Business Process Orientation maturity model (BPO maturity model) developed by McCormack and Johnson (2001) and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004) are considered. Although numerous BPM/BPO maturity models are available, these two models stand out for several reasons. Both models have been empirically validated, are generic (i.e. used for business processes generally), produce quantitative data (can be easily statistically analysed and compared, independent of assessors' interpretations), and take into account all business processes in the organizations involved (van Looy et al., 2012). In addition, the assessment does not take long, and the assessment questions and corresponding level calculation are well-established and publicly available free of charge. In the selection process, I made use of the freely available BPMM Smart-Selector tool developed by van Looy et al. (2012).

The BPO maturity model is used in line with Škrinjar and Trkman (2013) who argue that "BPM is an approach for increasing BPO" and that the proper BPM adoption directly affects the business process orientation (BPO). When an organization adopts BPM, it should become more process-oriented and therefore BPO can be used to measure the success of BPM adoption (Škrinjar & Trkman, 2013). In addition to the BPO maturity model, the PPI is used. It serves as an overall measure of the process management environment in an organization and suggests how well an organization is managing its key business processes (Rummler-Brache Group, 2004). For BPM adoption to be successful, the organization should have a high level of BPO and PPI. In other words, the higher the level of BPO and the process performance, the more successful the BPM adoption is.

4.3.3 Definition of the research model and hypotheses

I now describe hypotheses regarding the effects of organizational culture on BPM adoption success. Figure 14 shows the research model. The model proposes that the success of BPM adoption (in terms of BPO and PPI) is a function of the organizational culture (Clan, Adhocracy, Market and Hierarchy).

Figure 14. The research model



The hypotheses address organizational culture types and how they affect BPO and process performance. Previous studies argue that organizational culture can have a supporting or hindering effect on BPM adoption in an organization (Tsai, 2003). Thus, I assume that organizations with different organizational culture types will have varying success with BPM adoption (see H^1 and H^2). Since BPO and PPI are both used as proxies for measuring BPM adoption success, organizations with a high level of BPO are also expected to have a high level of PPI (see H^3).

These expectations are formalised in three main hypotheses:

H_0^1 The organizational culture type will have no impact on BPO.
H_α^1 The organizational culture type will have a significant impact on BPO.

H_0^2 The organizational culture type will have no impact on PPI.
H_α^2 The organizational culture type will have a significant impact on PPI.

H_0^3 BPO and PPI are not correlated with each other.
H_α^3 BPO and PPI are positively correlated with each other.

More specifically, I expect that the cultural dimensions, and BPO and PPI, respectively, are correlated as shown in Table 7. Arguments for this can be found in the work by Schmiedel et al. (2013), who identify four key cultural values supporting BPM, namely customer orientation, excellence, responsibility and teamwork. They stress the need for teamwork, which is supported in the Clan culture, but not in the Hierarchy culture. Indeed, it has been

observed that "hierarchical organizations have different policies and procedures that are clearly in contrast with business process concepts" (Alibabaei et al., 2010). Thus, the correlation between the Hierarchy type and BPM adoption success is expected to be negative. All other culture types (Clan, Adhocracy and Market) contain at least two of the core BPM values and therefore the correlations between them and BPM adoption success are expected to be positive.

Table 7. Specific hypotheses

	BPO	PPI
OCAI Clan Score	H_{α}^{1A}: positive	H_{α}^{2A}: positive
OCAI Adhocracy Score	H_{α}^{1B}: positive	H_{α}^{2B}: positive
OCAI Market Score	H_{α}^{1C}: positive	H_{α}^{2C}: positive
OCAI Hierarchy Score	H_{α}^{1D}: negative	H_{α}^{2D}: negative

4.4 Research design

In this section, the survey design and survey execution are discussed.

4.4.1 Survey design

To test the hypotheses, a survey-based research design is used to evaluate organizational culture and to measure the success of BPM adoption. The questionnaire also includes questions to assess the respondents' knowledge of and interest in BPM. The survey instrument was pre-tested using several IS professors and IS practitioners to ensure the questionnaire is understandable.

4.4.1.1 Measuring the organizational culture (independent variable)
For measuring the organizational culture I adopt the OCAI (Cameron & Quinn, 2006, p. 26-28), but only focus on the current culture. This means that data for the preferred culture are not collected. The OCAI is an instrument in the form of a questionnaire that requires the respondent to self-report perceptions of the organization's current culture by responding to 24 declarative statements arranged in six sections representing the content dimensions of organizational culture. These include *dominant characteristics*, *organizational leadership*, *management of employees*, *organizational glue*, *strategic emphasis*, and *criteria for success* (Cameron & Quinn, 2006).

The OCAI utilises a 100-point summative scale. The respondent is asked to divide the 100 points among four alternatives for each content dimension of organizational culture mentioned above, depending on the extent to which each alternative is similar to their own organization. A higher number of points should be given to the alternative that is most similar to the respondent's own organization. Based on the scores of the respondent, the averages are

then computed for different alternatives representing the respective culture type of the respondent's organization.

4.4.1.2 Measuring the success of Business Process Management adoption (dependent variables)

For measuring the success of BPM adoption, I adopt the BPO maturity model (McCormack & Johnson, 2001, p. 176) and the PPI (Rummler-Brache Group, 2004, p. 15) at 100%.

The BPO maturity model consists of 12 question items that relate to 3 dimensions: *Process View*, *Process Jobs*, and *Process Management*. The respondent is asked to express their agreement with the question regarding the respondent's organization by rating the 12 items using a 5-point Likert scale, with 1 indicating complete disagreement with the relevance of the question and 5 indicating complete agreement. The respondent also has the option to choose the answer "cannot judge", which is marked by the letter "X" in the questionnaire.

The PPI comprises ten success factors, namely *Alignment with strategy*, *Holistic approach*, *Process awareness by management and employees*, *Portfolio of process management initiatives*, *Process improvement methodology*, *Process metrics*, *Customer focus*, *Process management*, *Information systems*, and *Change management*. The respondent is asked to rate the organization's performance on each success factor using a 5-point Likert scale with anchors of 1 ("Strongly Disagree") and 5 ("Strongly Agree"). An organization's ranking on this scale suggests its Business Process Management maturity. The cumulative PPI score ranges from a minimum of 10 to a maximum of 50 points (Rummler-Brache Group, 2004).

4.4.2 Survey execution in Slovenia

The survey was conducted in organizations from the public and private sectors with more than 50 employees in Slovenia. A mailing list of all organizations that met the criteria was compiled from the online business directory *bizi.si*. Those organizations that were in bankruptcy were eliminated from the list of sample participants so that the final mailing list consisted of 2,180 organizations. The advantage of using Slovenia as a target population is that approaching the complete population is still feasible and its economy is known to be diversified.

An online survey was prepared as well as printed copies of the questionnaire in Slovenian. The printed copies were sent to all 2,180 organizations by post, together with a cover letter and a smaller envelope for return mail. The cover letter provided the link to the online survey, explained its purpose and who the intended addressee was, as well as stated the approximate time needed to complete the survey (20 minutes). Further, all participants were guaranteed complete anonymity.

The questionnaire was addressed to top managers and (where applicable) process owners, who should have the best understanding of BPM adoption in their company. The data collection period lasted from the beginning of March to the end of May 2013. Out of the

2,180 questionnaires sent, a total of 159 survey responses were received (47 online and 112 paper-based responses), yielding a 7.3% response rate. The results of the survey were analysed using IBM SPSS Statistics 20.

4.4.3 Survey execution in Croatia[4]

Just like in Slovenia, the survey in Croatia was conducted in organizations from the public and private sectors with more than 50 employees. An online survey was prepared as well as printed copies of the questionnaire in Croatian. The questionnaires were sent to 417 organizations by post and e-mail. The survey was addressed to top managers and (where applicable) process owners, who should have the best understanding of BPM adoption in their company. All participants were guaranteed complete anonymity. The data collection period lasted from October 2013 to May 2014. Out of 417 questionnaires sent, a total of 96 survey responses were received, yielding a 23% response rate. The survey results were analysed using IBM SPSS Statistics 20.

4.5 Results for the Slovenian data

In this section, it is first clarified how the data were cleansed and the demographics are presented. Then, the results of scale reliability and validity are summarised before I turn to testing the hypotheses.

4.5.1 Demographic data

The first step in the data analysis was cleansing the data based on the respondents' interest in BPM and knowledge of BPM. Among the respondents, 7% stated they are not interested in BPM. These were excluded from further analysis because they apparently have not adopted BPM nor plan to. To be able to draw reliable conclusions from the analysis, the respondents' knowledge of BPM was also captured: 22.0% of all respondents indicated they have no knowledge of BPM, and were therefore excluded from further analysis. Altogether, a total of 44 responding organizations were excluded from further analysis due to a lack of interest in BPM or knowledge of BPM, leaving 115 organizations for the further analysis. In the data analyses, the missing values are treated by excluding cases on a "pairwise" or "analysis by analysis" basis, which means that if a respondent has a score missing for a particular variable or analysis, then their data are excluded only from calculations involving that variable for which they have no score (Field, 2009, p. 177).

[4] This section was added for the purpose of the dissertation and is not part of the original paper that was presented at the international conference ECIS 2014.

Table 8. Demographic data (Slovenian data)

	Frequency	Percent	Valid Percent	Percent (Population)
Number of Employees				
< 250	91	79.1	79.8	77.5
≥ 250	23	20.0	20.2	14.2
Total (Valid)	114	99.1	100.0	91.7
Missing (not answered question or not available information)	1	0.9		8.3
Total	115	100.0		100.0
Business Sector (Industry Distribution)				
Service industry	72	62.2	63.2	55.8
Non-service industry	42	36.5	36.8	28.4
Total (Valid)	114	99.1	100.0	84.2
Missing (not answered question or not available information)	1	0.9		15.8
Total	115	100.0		100.0

Table 8 shows the demographic data from the 115 remaining responding organizations, which indicate no substantial difference from the data for the 2,180 organizations representing the target population (compare the right-hand-side column on percentages of the overall population). Since the data are consistent with the data in the entire population (regarding organizational sizes and industry distribution) I can be confident that the sample is representative.

4.5.2 Scale reliability and validity

Instrument reliability and validity are important for establishing confidence in the quality of the data gathered in any research study. Reliability is the ability of the measure to produce the same results in the same conditions and validity refers to whether an instrument measures what it is supposed to measure (Field, 2009). The reliability of the scales used in the questionnaire is tested using Cronbach's Alpha as the coefficient of reliability or consistency. Cronbach's Alpha is calculated for statements relating to each culture type on the OCAI, for BPO and for PPI.

The value of Cronbach's Alpha should be above 0.7 to indicate good overall reliability of the scale (Nunnally & Bernstein, 1994). BPO and PPI have high reliabilities with Cronbach's $\alpha > 0.9$ (for BPO $\alpha = 0.917$, for PPI $\alpha = 0.913$). All four culture types also have sufficient reliability, Cronbach's $\alpha > 0.7$ (for Clan $\alpha = 0.745$, for Adhocracy $\alpha = 0.751$, for Market $\alpha = 0.798$. for Hierarchy $\alpha = 0.842$). All alphas exceed the minimum, indicating sufficient reliability of the scales used in the questionnaire.

The validity of the OCAI, the BPO maturity model and the PPI has been established in a number of previous studies. Cameron and Quinn (2006) report on three studies which tested

and established the validity of the OCAI (Cameron & Freeman, 1991; Quinn & Spreitzer, 1991; Zammuto & Krakower, 1991). Some of the studies that established the validity of the BPO maturity model are those by McCormack and Johnson (2001), McCormack (2001), and Škrinjar et al. (2008). Validity of the PPI was established in a study by the Rummler-Brache Group (2004).

4.5.3 Common method bias

Since the data on both the independent and dependent variables were collected from the same respondents at one point in time, a potential problem of common method bias exists. Podsakoff, MacKenzie, Lee and Podsakoff (2003) address this problem in their research and find that "to the extent that measures are taken at the same time in the same place, they may share systematic covariation because this common measurement context may (a) increase the likelihood that responses to measures of the predictor and criterion variables will co-exist in short-term memory, (b) provide contextual cues for retrieval of information from long-term memory, and (c) facilitate the use of implicit theories when they exist" (Podsakoff et al., 2003). The authors also suggest how to control for potential sources of method biases.

Therefore, some techniques for controlling common method biases were also used in this study. While it was not feasible to obtain measures of the predictor and criterion variables from different sources, the study did reduce method biases by protecting respondents' anonymity and reducing evaluation apprehension. Respondents were guaranteed complete anonymity and assured that there are no right or wrong answers so that they would answer questions as honestly as possible. "These procedures should reduce people's evaluation apprehension and make them less likely to edit their responses to be more socially desirable, lenient, acquiescent, and consistent with how they think the researcher wants them to respond" (Podsakoff et al., 2003).

In addition, Harman's single-factor test was used to address the issue of common method variance. This is one of the most widely used techniques that provides an indication of whether a single factor accounts for all of the covariance among the items and assesses the extent to which common method variance may be a problem. The results of the Harman's single-factor test show that 28 % of variance is explained by a single factor, which indicates that the common method bias is not a significant concern in this study (less than 50% cut-off point). The result is obtained by running unrotated, a single-factor constraint of factor analysis in SPSS.

4.5.4 Hypotheses testing

For each organization I calculate the OCAI score and then analyse the data using two different approaches: (1) the group comparison approach; and (2) regression analysis. While the group comparison approach is popular (Aier, 2012) and has been used by many studies (e.g. Bradley et al., 2006), there has been some criticism regarding the allocation of a case to one cultural group based on the case's dominant culture. Namely, this approach reduces the available data

to only the dominant type of culture and thus ignores that an organization typically has some score for all four types of culture (Aier, 2012). However, a group comparison is useful for answering the research question and for identifying which organizations, depending on their dominant culture type, are more or less successful in adopting BPM.

4.5.4.1 Group comparison

For the group comparison, the organizations are categorised in four groups (A, B, C and D), depending on their dominant culture type. Group A represents organizations with a predominant Clan culture, in group B there are organizations with an Adhocracy culture, group C has organizations with a Market culture, and group D contains organizations with a Hierarchy culture. The results reveal that the prevalent organizational culture type in the target population is the Clan culture (42.6%, N = 49), followed by the Hierarchy (33.9%, N = 39), Market (16.5%, N = 19) and Adhocracy cultures (7.0%, N = 8).

For these data, the assumptions of parametric tests, i.e. the assumption of the normality of distributions and the assumption of the homogeneity of variance, are checked. The normality of distributions for BPO and PPI within each of the four culture groups is tested using the Kolmogorov-Smirnov (K-S) test. For both BPO and PPI, within the groups B, C and D the K-S test is non-significant, indicating the distribution is normal. However, in group A the K-S test is significant. Thus, BPO and PPI are significantly normal within the Adhocracy, Market and Hierarchy culture groups, but not in the Clan culture group.

The homogeneity of variance is tested using Levene's test, which examines whether the variances of the four groups are significantly different. If Levene's test is non-significant (i.e. $p > 0.05$), the variances are not significantly different and the homogeneity of variance assumption is tenable. The results of Levene's test show that variances are significantly different for PPI ($F(3, 109) = 4.913$, $p < 0.05$) but not for BPO ($F(3, 111) = 1.813$, $p > 0.05$). For BPO the variances are equal for all four groups, whereas for PPI the assumption of the homogeneity of variance is not tenable.

Since the data do not adhere to the assumptions of parametric tests for all culture groups (the distribution in group A is not normal) and for both dependent variables (for PPI the variances of the four groups are significantly different), non-parametric tests are used in further group comparison analysis. Most of these tests work on the principle of ranking the data (high scores are represented by large ranks, and low scores by small ranks) and carrying out the analysis on the ranks rather than the actual data (Field, 2009, p. 540).

The Kruskal-Wallis test is used to analyse the differences in BPM adoption success between the four culture groups. Table 9 shows a summary of the ranked data in each culture group. Because the Kruskal-Wallis test relies on scores being ranked from lowest to highest, Table 9 can be used to ascertain which group has the highest scores and which the lowest. The results show that the highest scores for BPO and PPI are in group A (Clan culture), whereas the lowest scores for BPO and PPI are in group D (Hierarchy culture).

Table 9. Ranked data for the Kruskal-Wallis test (Slovenian data)

	Dominant culture type	N	Mean Rank
BPO	group A (Clan)	49	71.86
	group B (Adhocracy)	8	57.75
	group C (Market)	19	61.29
	group D (Hierarchy)	39	39.04
	Total	115	
PPI	group A (Clan)	47	69.36
	group B (Adhocracy)	8	46.00
	group C (Market)	19	60.84
	group D (Hierarchy)	39	42.49
	Total	113	

The Kruskal-Wallis test indicates that BPO and PPI are significantly affected by the dominant culture types, $H(3) = 21.30$, $p < 0.05$ for BPO, and $H(3) = 15.55$, $p < 0.05$ for PPI. Mann-Whitney tests are used to follow up this finding. A Bonferroni correction is applied and so all effects are reported at a 0.0083 level of significance. The results show that BPO and PPI are not different when group B (U = 138, r = -0.18 for BPO, and U = 95, r = -0.30 for PPI) or group C (U = 362, r = -0.17 for BPO, and U = 378, r = -0.12 for PPI) are compared to group A. However, group D has significantly lower BPO and PPI than group A (U = 437, r = -0.46 for BPO, and U = 496, r = -0.39 for PPI). Again, BPO and PPI are not different when group C (U = 72, r = -0.04 for BPO, and U = 52, r = -0.24 for PPI) or group D (U = 96, r = -0.25 for BPO, and U = 128, r = -0.12 for PPI) are compared to group B. A significant difference is found between group C and group D in terms of BPO (U = 208, r = -0.35), but not for PPI (U = 252, r = -0.26). Based on these results, it can be concluded that organizations with a dominant Hierarchy culture (group D) appear to have significantly lower levels of BPO and PPI (and are thus significantly less successful in adopting BPM) than organizations with a dominant Clan culture (group A). In addition, organizations with a dominant Market culture (group C) appear to have a significantly higher BPO than organizations with a dominant Hierarchy culture.

Another way to see which groups differ is to look at a boxplot of the groups. Boxplots show the range of scores, the range between which the middle 50% of scores fall, and the median, lower quartile and upper quartile scores (Field, 2009). Figures 15 and 16 present boxplots of the BPO and PPI scores split by the four culture groups. The highest BPO and PPI scores can be found in group A (organizations with a Clan culture) and the lowest in group D (organizations with a Hierarchy culture), which tells us that the organizations in group A were more successful adopting BPM than the organizations in group D. Comparing organizations with a dominant Clan culture and organizations with a dominant Hierarchy culture, we can see they have similar high scores (especially for PPI). However, organizations with a dominant Hierarchy culture have worse low scores than organizations with a dominant Clan

culture. In fact, organizations with a dominant Hierarchy culture have the lowest scores among the four culture groups.

Figure 15. Boxplot of Business Process Orientation scores split by the four culture groups (Slovenian data)

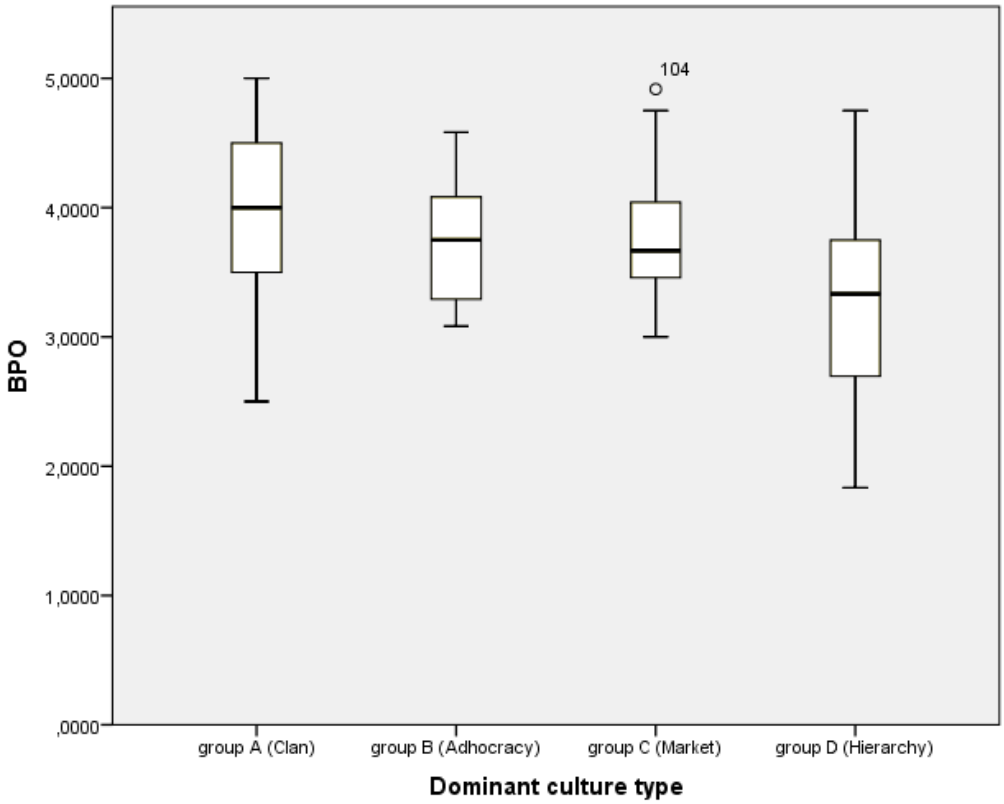
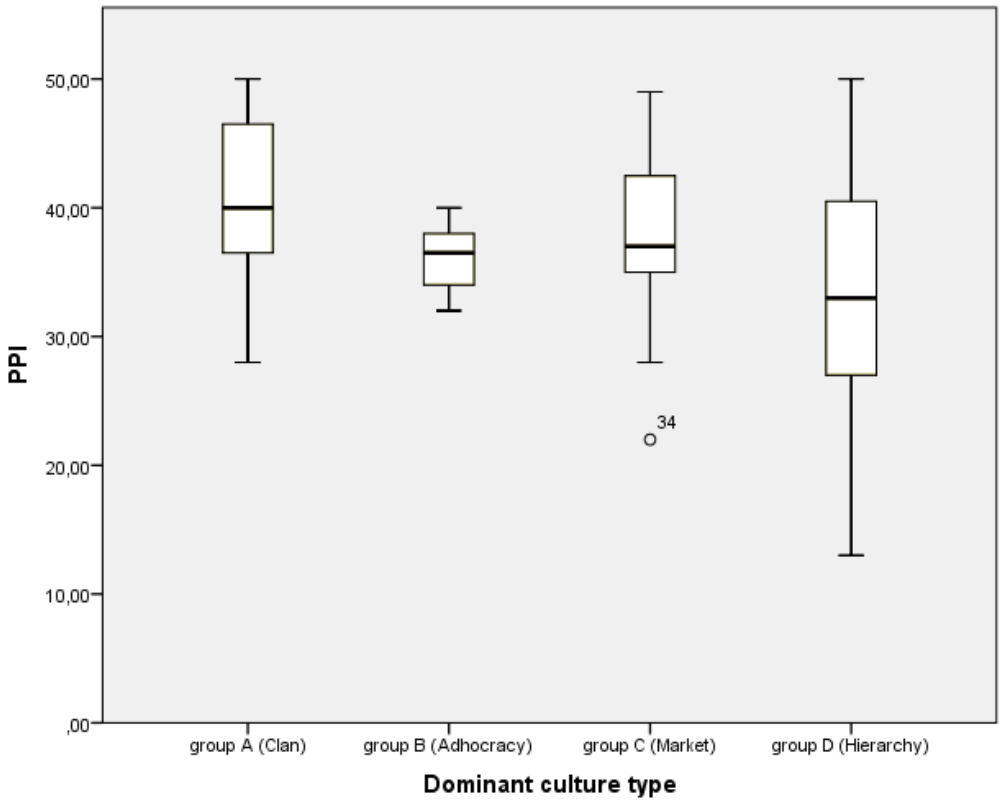


Figure 16. Boxplot of Process Performance Index scores split by the four culture groups (Slovenian data)



4.5.4.2 Correlations and regression analysis

The data were further analysed using correlations and regression analysis. For this analysis, I follow Aier (2012) and measure each of the four alternatives (i.e. each of the four culture types) with separate variables, instead of splitting the dataset into four culture groups.

The K-S test for BPO and PPI in this case is non-significant, indicating that the distribution is normal. Table 10 gives the correlation matrix. Pearson's Correlation is calculated to test for correlations between the four culture types and BPM adoption success (measured by BPO and PPI). In addition, the correlation between BPO and PPI is calculated and shows they are positively related to each other ($p < 0.001$). This means that organizations with a high level of BPO also have a high level of PPI.

Table 10. Correlation matrix (Slovenian data)

		BPO	PPI	Clan	Adhocracy	Market	Hierarchy
BPO	Pearson Correlation	1					
	Sig. (2-tailed)						
PPI	Pearson Correlation	**0.787****	1				
	Sig. (2-tailed)	0.000					
Clan	Pearson Correlation	**0.334****	**0.279****	1			
	Sig. (2-tailed)	0.000	0.003				
Adhocracy	Pearson Correlation	**0.275****	0.083	-0.009	1		
	Sig. (2-tailed)	0.003	0.379	0.926			
Market	Pearson Correlation	0.051	0.053	-0.569**	0.203*	1	
	Sig. (2-tailed)	0.587	0.575	0.000	0.030		
Hierarchy	Pearson Correlation	**-0.465****	**-0.311****	-0.394**	-0.713**	-0.377**	1
	Sig. (2-tailed)	0.000	0.001	0.000	0.000	0.000	

** Correlation is significant at the 0.05 level (2-tailed)*

*** Correlation is significant at the 0.01 level (2-tailed)*

The test shows that Clan culture is significantly correlated with BPO (r = 0.33) and PPI (r = 0.28), Adhocracy culture is significantly correlated with BPO (r = 0.28), and Hierarchy culture is significantly correlated with BPO (r = -0.47) and PPI (r = -0.31). All of these correlations are significant at the 0.01 level (2-tailed). Since Hierarchy culture negatively relates to both measures of BPM adoption success (BPO and PPI), it can be concluded that the stronger the Hierarchy culture, the less successful the adoption of BPM in an organization.

The strength of this connection can also be assessed using the coefficient of determination R^2 as the proportion of variance explained by organizational culture. The value of R^2 for Hierarchy culture and BPO is 0.216 and between Hierarchy culture and PPI it is 0.097. This is classified as medium explanatory power (Cohen, 1988). However, this explanatory power has to be related to the fact that none of the other independent factors were taken into account, such as industry sector, company size or profit margin, to name but a few.

To test the remaining two classes of hypotheses the stepwise method of linear regression is used with the set of OCAI score variables as independent variables and the dependent variables BPO and PPI.

Table 11. Standardised Beta coefficients for those OCAI score variables that are significant (Slovenian data)

Dependent	Clan	Adhocracy	Market	Hierarchy	Adj. R^2	Supporting
BPO	0.179 (0.048)	--	--	-0.395 (0.000)	0.230	H_{α}^{1A}: positive, H_{α}^{1D}: negative
BPO (size < 250)	--	--	--	-0.420 (0.000)	0.167	H_{α}^{1D}: negative
BPO (size ≥ 250)	--	--	--	-0.618 (0.002)	0.352	H_{α}^{1D}: negative
BPO (not service)	0.262 (0.025)	--	--	-0.190 (0.000)	0.338	H_{α}^{1A}: positive, H_{α}^{1D}: negative
BPO (service)	--	--	--	-0.374 (0.004)	0.125	H_{α}^{1D}: negative
PPI	--	-0.278 (0.030)	--	-0.508 (0.000)	0.119	H_{α}^{2D}: negative
PPI (size < 250)	0.287 (0.006)	--	--		0.072	H_{α}^{2A}: positive
PPI (size ≥ 250)	--	--	--	-0.447 (0.033)	0.162	H_{α}^{2D}: negative
PPI (not service)	--	-0.404 (0.029)	--	-0.649 (0.001)	0.174	H_{α}^{2D}: negative
PPI (service)	0.357 (0.006)	--	--		0.112	H_{α}^{2A}: positive

Table 11 summarises the results of the linear regression analysis. In general, the analysis provides further evidence that the OCAI Hierarchy score appears to be negatively connected with both BPO and PPI. The standardised Beta coefficients are -0.395 and -0.508. The share of the variable being explained, as expressed by R^2, is 0.230 and 0.119, respectively. These data lend support to the observation that BPO seems to be more strongly negatively associated with Hierarchy than PPI, which is in line with what can be seen in the correlation analysis.

Here, it has to be noted that diverging evidence was found concerning the connection between Adhocracy culture and BPM adoption success (positive in the correlation and negative with PPI in the regression). As the sample includes hardly any organization with a dominant Adhocracy culture and many with low values in this dimension, there is a need to study this connection by gathering new data in future research.

In order to clarify the potential effect of firm size and industry sector, additional analysis is conducted. First, dummy variables are used for size greater than 250 (yes/no) and service industry (yes/no) in the regression model, which does not lead to these dummies showing up in the equation. Second, the data are split according to these two dummy variables and the regression estimation is repeated (see Table 11). It is interesting to note that the negative connection between Hierarchy and BPO and PPI is significant for each of the subsamples. For bigger firms with more than 250 employees, the explanatory power rises to an R^2 of 0.352 and 0.162, respectively. For firms from the non-service industry (mostly manufacturing in the sample), the connection appears to be stronger than for the service industry. Yet this result could be due to the fact that a good share of firms from the service industry is small in size.

4.6 Results for the Croatian data[5]

4.6.1 Demographic data

The first step in the data analysis was to cleanse the data based on the respondents' interest in BPM and knowledge of BPM. Altogether, a total of 10 responding organizations were excluded from further analysis due to a lack of interest in BPM or knowledge of BPM, leaving 86 organizations for further analysis. In the data analyses, the missing values are treated by excluding cases on a "pairwise" or "analysis by analysis" basis, meaning that if a respondent has a score missing for a particular variable or analysis, then their data are excluded only from calculations involving the variable for which they have no score (Field, 2009, p. 177). Table 12 shows the demographic data from the 86 remaining responding organizations.

Table 12. Demographic data (Croatian data)

	Frequency	Percent	Valid Percent
Number of Employees			
< 250	27	31.4	32.1
≥ 250	57	66.3	67.9
Total (Valid)	84	97.7	100.0
Missing	2	2.3	
Total	86	100.0	
Business Sector (Industry Distribution)			
Service industry	61	70.9	71.8
Non-service industry	24	27.9	28.2
Total (Valid)	85	98.8	100.0
Missing	1	1.2	
Total	86	100.0	

4.6.2 Hypotheses testing

For each organization, I calculate the OCAI score and then analyse the data using two different approaches: (1) group comparison; and (2) regression analysis.

4.6.2.1 Group comparison

For the group comparison, the organizations are categorised in four groups (A, B, C and D), depending on their dominant culture type. Group A represents organizations with a predominant Clan culture, in group B there are organizations with an Adhocracy culture, group C includes organizations with a Market culture, and group D contains organizations with a Hierarchy culture. The results reveal that the prevalent organizational culture type in the target population is the Hierarchy culture (34.9%, N = 30), followed by the Market (33.7%, N = 29), Clan (18.6%, N = 16) and Adhocracy cultures (12.8%, N = 11).

[5] This section was added for the purpose of the dissertation and is not part of the original paper that was presented at the international conference ECIS 2014.

For these data, the assumptions of parametric tests, i.e. the assumption of the normality of distributions and the assumption of the homogeneity of variance, are checked. The normality of distributions for BPO and PPI within each of the four culture groups is tested using the Kolmogorov-Smirnov (K-S) test and the homogeneity of variance is tested using Levene's test. Results of these tests show the data do not adhere to the assumptions of the parametric tests for all culture groups and for both dependent variables; therefore, non-parametric tests are used in further group comparison analysis. Most of these tests work on the principle of ranking the data (high scores are represented by large ranks, and low scores by small ranks) and carrying out the analysis on the ranks rather than the actual data (Field, 2009, p. 540).

The Kruskal-Wallis test is used to analyse the differences in BPM adoption success between the four culture groups. Table 13 shows a summary of the ranked data in each culture group. Because the Kruskal-Wallis test relies on scores being ranked from lowest to highest, Table 13 can be used to ascertain which group has the highest scores, and which the lowest. The results show that the highest scores for BPO and PPI are in group A (Clan culture), whereas the lowest scores for BPO and PPI are in group D (Hierarchy culture).

Table 13. Ranked data for the Kruskal-Wallis test (Croatian data)

	Dominant culture type	N	Mean Rank
BPO	group A (Clan)	16	56.72
	group B (Adhocracy)	11	43.91
	group C (Market)	29	48.14
	group D (Hierarchy)	30	31.82
	Total	86	
PPI	group A (Clan)	16	53.69
	group B (Adhocracy)	11	36.82
	group C (Market)	29	49.64
	group D (Hierarchy)	29	32.81
	Total	85	

The Kruskal-Wallis test indicates that BPO and PPI are significantly affected by the dominant culture types, $H(3) = 12.08$, $p < 0.05$ for BPO, and $H(3) = 10.76$, $p < 0.05$ for PPI. Mann-Whitney tests are used to follow up this finding. A Bonferroni correction is applied and so all effects are reported at a 0.0083 level of significance. The results show that BPO and PPI are significantly different between groups A (Clan culture) and D (Hierarchy culture), where group D has a significantly lower BPO and PPI than group A ($U = 99$, $r = -0.48$ for BPO, and $U = 113$, $r = -0.42$ for PPI). However, BPO and PPI are not significantly different when other groups are compared. Based on these results, it can be concluded that organizations with a dominant Hierarchy culture (group D) appear to have significantly lower levels of BPO and PPI (and are thus significantly less successful in adopting BPM) than organizations with a dominant Clan culture (group A).

Another way to see which groups differ is to look at a boxplot of the groups. Figures 17 and 18 present boxplots of the BPO and PPI scores of the Croatian organizations split by the four culture groups. Comparing the groups, we can see they all have quite similar top scores and different low scores for BPO and PPI. Organizations with a dominant Hierarchy culture seem to have the lowest scores among the four culture groups, whereas organizations with a dominant Clan culture appear to have the highest scores. This tells us that organizations with a dominant Clan culture seem to be the most successful, and organizations with a dominant Hierarchy culture the least successful with BPM adoption.

Figure 17. Boxplot of Business Process Orientation scores split by the four culture groups (Croatian data)

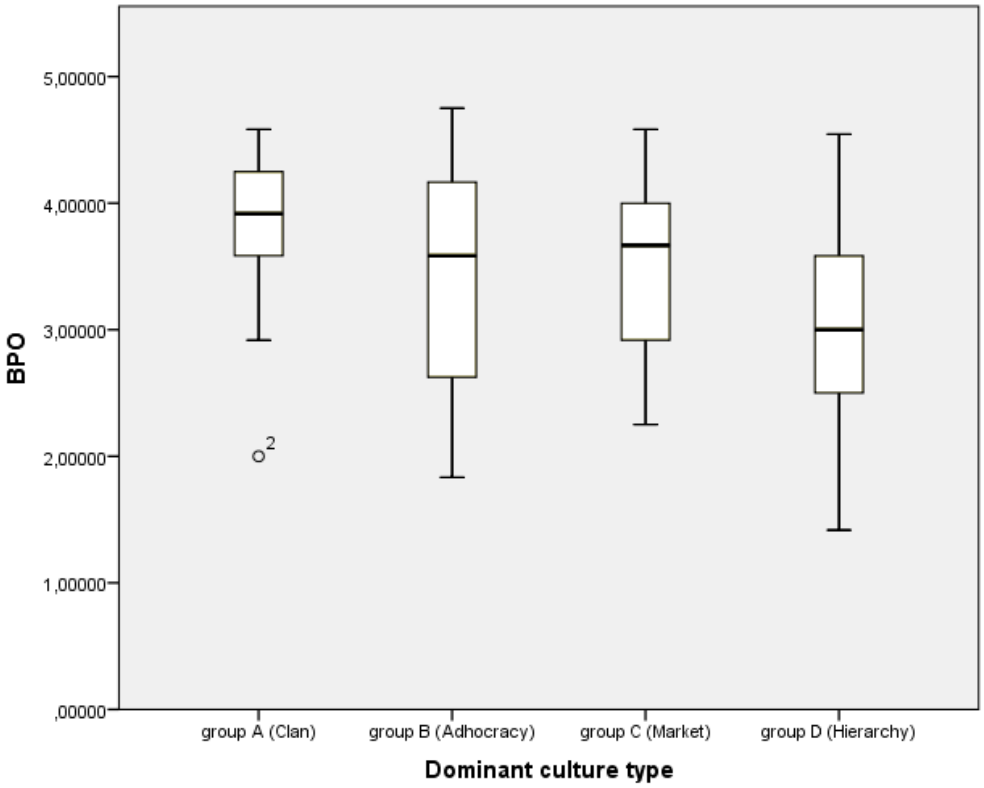
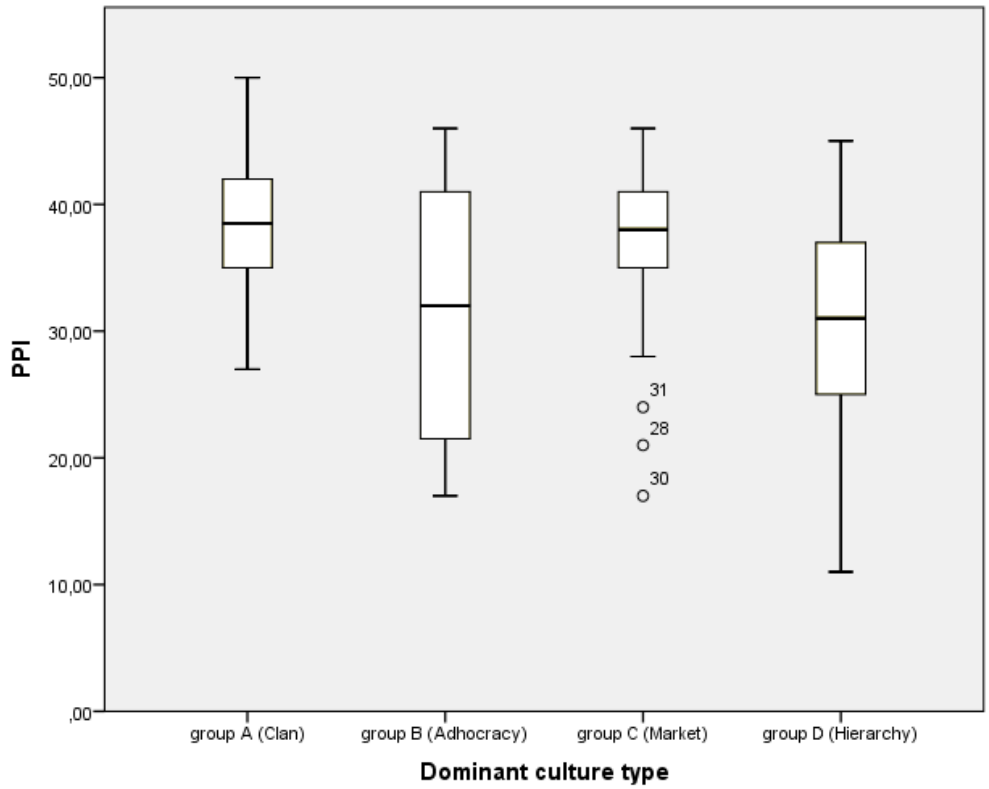


Figure 18. Boxplot of Process Performance Index scores split by the four culture groups (Croatian data)



4.6.2.2 Correlations

The data were further analysed using correlations. For this analysis, each of the four alternatives (i.e. each of the four culture types) is measured with separate variables, instead of splitting the dataset into four culture groups.

The K-S test for BPO and PPI in this case is highly significant, indicating that both distributions are not normal. Table 14 gives the correlation matrix. Spearman's Correlation is calculated to test for correlations between the four culture types and success in BPM adoption (measured with BPO and PPI). In addition, the correlation between BPO and PPI is calculated and shows they are positively related to each other ($p < 0.001$). This means that organizations with a high level of BPO also have a high level of PPI.

Table 14. Correlation matrix for Croatian data (Spearman's rho)

		BPO	PPI	Clan	Adhocracy	Market	Hierarchy
BPO	Correlation Coefficient	1					
	Sig. (2-tailed)						
PPI	Correlation Coefficient	**0.749****	1				
	Sig. (2-tailed)	0.000					
Clan	Correlation Coefficient	**0.213***	**0.253***	1			
	Sig. (2-tailed)	0.049	0.019				
Adhocracy	Correlation Coefficient	0.181	0.200	0.293**	1		
	Sig. (2-tailed)	0.095	0.066	0.006			
Market	Correlation Coefficient	-0.039	-0.044	-0.574**	-0.372**	1	
	Sig. (2-tailed)	0.721	0.689	0.000	0.000		
Hierarchy	Correlation Coefficient	**-0.319****	**-0.350****	-0.534**	-0.605**	-0.032	1
	Sig. (2-tailed)	0.003	0.001	0.000	0.000	0.773	

** Correlation is significant at the 0.05 level (2-tailed)*

*** Correlation is significant at the 0.01 level (2-tailed)*

The test shows that Clan culture is significantly correlated with BPO (r =.21) and PPI (r =.25), with both correlations significant at the 0.05 level (2-tailed). The results also show that Hierarchy culture is significantly correlated with BPO (r = -.32) and PPI (r = -.35), with both correlations significant at the 0.01 level (2-tailed). Since the Hierarchy culture negatively relates to both measures of BPM adoption success (BPO and PPI), it can be concluded that the stronger the Hierarchy culture, the less successful the adoption of BPM in an organization.

4.7 Discussion

In this section, I briefly summarise the findings (Section 4.7.1) and discuss implications for research (Section 4.7.2) and for practice (Section 4.7.3). Last, the limitations of the study are discussed (Section 4.7.4).

4.7.1 Summary of the findings

This study proposes that the dominant organizational culture has a significant impact on the level of BPO and on the level of PPI, and that BPO and PPI are positively correlated with each other. The results of the study provide support for all three main hypotheses (see Table 15) and show that organizations with different organizational culture types do have different levels of success with BPM adoption.

Table 15. Summary of the hypotheses tests

Hypothesis	**Result**
H_{α}^{1} The dominant organizational culture type will have a significant impact on BPO.	Supported
H_{α}^{2} The dominant organizational culture type will have a significant impact on PPI.	Supported
H_{α}^{3} BPO and PPI are positively correlated with each other.	Supported

According to the results, the prevalent organizational culture type in the target population is the Clan culture, followed by the Hierarchy, Market and Adhocracy cultures. The highest level of BPM adoption success is achieved in organizations with the Clan culture type, whereas organizations with the Hierarchy culture type achieved the lowest level of BPM adoption success. Thus, Clan culture is identified as the most favourable and Hierarchy culture as the least favourable for BPM adoption.

4.7.2 Implications for research

The findings presented in this chapter hold two major implications for research. First, how the success of BPM adoption differs according to different organizational cultures was investigated. While previous studies point to the relevance of organizational culture for BPM adoption success, hardly any research has studied the impact of organizational culture on BPM adoption success in a quantitative way. Only recently was a framework for measuring cultural aspects related to BPM established (vom Brocke & Sinnl, 2011); yet, without studying its consequences. Therefore, the findings of this research address an important research gap as they show that organizational culture influences the success of BPM initiatives and the resulting process performance.

Second, it is identified which organizational culture types are more favourable and which are less favourable to the adoption of BPM. The findings show that organizations with a dominant Clan culture appear to be more successful with BPM adoption than organizations with a dominant Hierarchy culture. This can be explained by comparing the characteristics of the Clan and Hierarchy cultures with the core values of the BPM culture (key cultural values supporting the BPM initiative), namely customer orientation, excellence, responsibility and teamwork (Schmiedel et al., 2013). While the Clan culture complements these values, Hierarchy promotes a functional orientation, control and formal rules instead. In addition, the principles of BPM are closely related to the characteristics of Clan culture.

On a more general level, the number of studies in information systems research that approach organizational culture and national culture using surveys as a research method is still limited and the evidence provided is not fully conclusive (Lowry, Zhang, Zhou & Fu, 2010; Zhang, Sarker & Sarker, 2013; Macredie & Sandom, 1999; Keil et al., 2000). For instance, Zhang et al. (2013) find no evidence of cross-cultural differences between China and the USA in the extent to which IT capabilities are influenced by various factors. Macredie and Sandom (1999) also find no impact of organization type, customer dissatisfaction and improvisation.

In this study, a significant connection between BPM adoption success and organizational culture is found. In this way, I contribute to cultural studies in IS and inform research on BPM.

4.7.3 Implications for practice

This research provides a better understanding of the relationship between organizational culture and BPM adoption success. The findings can help organizations prepare their BPM initiative by including a culture analysis in the preparatory phase of their BPM adoption. This is especially important for organizations with a dominant Hierarchy culture given the significant negative correlation between Hierarchy culture and BPM adoption success. The relevance of this finding is emphasised by the fact that the Hierarchy culture is the second most common organizational culture type in the target population.

Since organizational culture has a significant role in the success of BPM adoption, organizations should be aware of their dominant culture type and its characteristics, and choose the appropriate approach to BPM adoption. Apparently, organizations with a predominant Hierarchy culture would have to consider making greater efforts to establish a successful BPM adoption. This may involve a stronger emphasis on change management activities and a less ambitious schedule. However, further empirical research is needed to investigate which specific measures are likely to support BPM adoption success in different organizational cultures.

4.7.4 Limitations

I identify three limitations of the work carried out. First, the operationalisation of BPM adoption success is focused on the level of BPO and PPI, which are used as proxies for measuring the success of BPM adoption. Future work could investigate other aspects of BPM adoption success, for instance, improvement in terms of quality, time and costs. Moreover, items could be developed to more directly measure the degree of BPM adoption.

Second, the results could only show there is a statistically significant difference between BPM adoption success (in terms of BPO and PPI) in group A (dominant Clan culture) and group D (dominant Hierarchy culture). A significant difference in terms of BPO is also found between groups C (dominant Market culture) and D. Group B (organizations with a dominant Adhocracy culture) is not significantly different from the other culture groups, which might be due to the small sample size ($N = 8$).

The small sample sizes are also the reason why only the dominant culture types were considered for the group comparison approach. Ideally, the role of cultural profiles would be more emphasized and organizations would be categorised in groups based on their cultural profiles, not merely the dominant culture type. However, for such analysis the sample sizes should be bigger. Therefore, this is an important issue for future research.

Third, the research question was approached with a survey design. This means the conclusions of the research are subject to the general weaknesses of correlational studies. Still, I find correlations which are in line with my propositions. The interpretation of the potential direction of this connection builds on theoretical arguments and on anecdotal evidence from the BPM literature, where positive effects of BPM adoption on process orientation and performance are reported, e.g. Škrinjar and Trkman (2013) and Škrinjar et al. (2008). In addition, because organizational culture is known to be a sluggish variable (Grugulis & Wilkinson, 2002), I see good reasons for asserting that the significant connection that was found is not caused by some hidden factors, such as strategic alignment, leadership, project management or performance measurement, to name but a few.

In spite of these limitations, this work offers important implications for research and practice, as discussed in the previous section.

4.7.5 Discussion of the results according to the findings of previous studies[6]

In this section, the results are discussed with regard to the findings of previous studies, which are presented in Section 3 of the dissertation (the literature review).

The results of this study indicate that BPM adoption success is significantly affected by organizational culture types. This finding is in line with the literature, which suggests that different organizational cultural types have a varying impact on the BPM initiative (e.g. the studies by Ruževičius et al., 2012; Yong & Pheng, 2008; Dellana & Hauser, 1999).

The results also show that the Clan and Adhocracy cultures are significantly and positively correlated with BPM adoption success. Hierarchy culture is found to be significantly negatively correlated with BPM adoption success, whereas no significant correlations were found for Market culture. However, the findings show that organizations with a dominant Market culture appear to be significantly more successful with BPM than organizations with a dominant Hierarchy culture.

Clan culture is identified as the most favourable culture type for BPM adoption as the highest scores for BPO and PPI were found in the group with a dominant Clan culture. On the other hand, Hierarchy culture is identified as the least favourable culture type for BPM adoption with the lowest scores for BPO and PPI. The findings show that organizations with a dominant Clan culture appear to be significantly more successful in adopting BPM than organizations with a dominant Hierarchy culture.

All these findings are in accordance with the literature. Clan culture appears to fit with BPM and is recognised as one of the most appropriate organizational culture types (Prajogo & McDermott, 2005, 2011; Yong & Pheng, 2008; Baird et al., 2011). Flexibility (a characteristic

[6] Section *4.7.5 Discussion of the results according to the findings of previous studies* was added for the purpose of the dissertation and is not part of the original paper that was presented at the international conference ECIS 2014.

of both the Clan and Adhocracy cultures) is found to be an important cultural dimension, which seems to be in line with BPM. Adhocracy culture is identified as supporting BPM adoption as well (Schmiedel et al., 2013; Wong et al., 2014; Ruževičius et al., 2012; Prajogo & McDermott, 2005, 2011; Dellana & Hauser, 1999).

The negative relationship between Hierarchy culture and BPM adoption is also supported in the literature. For example, Dellana and Hauser (1999) find that TQM success is negatively correlated to the Hierarchy culture, Alibabaei et al. (2010) identify hierarchical organizations as "clearly in contrast with business process concepts", and Ruževičius et al. (2012) claim that the Hierarchy culture is not the best way to achieve success in BPM adoption and in organizational efficiency. However, some positive relations between the Hierarchy culture and the use of certain TQM practices were found in the studies by Prajogo and McDermott (2005, 2011).

As for the Market culture, most studies agree that it has a positive relationship with BPM adoption (e.g. Prajogo & McDermott, 2005, 2011; Baird et al., 2011; Ruževičius et al., 2012). This is line with the results of this study where Market culture is identified as a favourable culture type for BPM adoption with the second highest scores for BPO and PPI.

4.8 Conclusion

In this chapter, the role of organizational culture in the success of BPM adoption is analysed. The results of the study indicate that organizational culture has a significant effect on BPM adoption success. This finding holds strong implications for research and practice. Specifically, organizations should be aware of their dominant culture type and its characteristics, and choose the appropriate approach to BPM adoption. This work extends the body of knowledge regarding cultural issues in BPM, and thereby paves the way to more successful BPM adoption – which will significantly increase the benefits of BPM in organizations.

This study investigates organizational culture. Yet other cultural factors might also play a role in BPM adoption. It will be an important objective of future research to study the impact of organizational culture on BPM adoption success in different countries, thus including national culture in the research. To my knowledge, no research has to date studied BPM adoption in different countries. Further, another important question is which measures can be applied to configure BPM adoption so that it has better chances of being successful in companies with different types of culture.

5 BUSINESS PROCESS MANAGEMENT ADOPTION UNDER A HIERARCHY CULTURE: A CASE STUDY OF A MINISTRY[7]

ABSTRACT

Organizational culture affects the success of Business Process Management (BPM) adoption. A significant negative correlation has been found between Hierarchy culture type and BPM adoption success, identifying the Hierarchy culture as the least favourable for adopting BPM. Since organizational culture is difficult to change, organizations should adapt their approach to BPM adoption to suit the existing organizational culture. The aim of this chapter is to find out what approach towards BPM adoption might be appropriate in an organization with Hierarchy culture. For this, a case study of a Slovenian public organization is conducted using both quantitative and qualitative methods.

Keywords: business process management, organizational culture, approach, success, case study.

5.1 Introduction

Business Processes Management (BPM) is considered to be among the top priorities of many organizations. It is a concept that can, if successfully adopted, bring significant benefits to the organization, such as a better understanding of its business processes, more control, better business performance (Škrinjar et al., 2008) and an agile adaptation to changing business requirements (Neubauer, 2009). However, many organizations fail in their attempt to successfully adopt BPM (Trkman, 2010). The question of why certain projects succeed and others fail is an important area of research (Grisdale & Seymour, 2011; Alibabaei et al., 2010; Bandara et al., 2009).

Several studies state that organizational culture might have a significant impact on BPM adoption (e.g. Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010) or that it might be connected with failure and success (Melenovsky & Sinur, 2006; Bandara et al., 2009; Ravesteyn & Versendaal, 2007). It is argued that cultural characteristics in organizations may provide either suitable conditions or hindrances for success in BPM adoption (Bandara et al., 2009). Further, certain values are mentioned to be supportive of BPM objectives or to be road blocks (vom Brocke & Sinnl,

[7] This section of the dissertation was presented as a paper at the international conference EBR 2014, namely Buh, B. & Indihar Štemberger, M. (2014). Approach towards BPM Adoption under Hierarchy Culture: A Case Study, *3rd Economic and Business Review Conference, Ljubljana, Slovenia, November 28, 2014, EBR*.
Some parts of the case study were published as Manfreda, A., Buh, B. & Indihar Štemberger, M. (2015). Knowledge-intensive process management: a case study from the public sector, *Baltic Journal of Management, 10*(4), 456–477.
Some parts of the case study will also be published as Buh, B., Mendling, J. & Indihar Štemberger, M. (Forthcoming). The correlation of organizational culture and success of BPM adoption. In The Complete Business Process Handbook, Extended Business Process Management, Volume 2 (von Rosing, M, Zachman, J.A. and von Scheel, H. Ed.), Elsevier publication.

2011). A recent study investigating the correlation between organizational culture and BPM adoption success shows using statistical methods that certain organizational culture types seem to be more favourable and others less favourable for BPM adoption (Hribar & Mendling, 2014). The authors find a significant negative correlation between the Hierarchy culture type and BPM adoption success, identifying the Hierarchy culture as the least favourable for adopting BPM. However, it has not yet been researched how to approach BPM adoption in an organization depending on its organizational culture. The aim of this chapter is to find out which approach to adopting BPM might be appropriate in an organization with a Hierarchy culture.

The chapter is structured as follows: Section 5.2 provides the research background. Section 5.3 presents the research methodology, followed by a description of the case study and analysis in section 5.4. Section 5.5 summarises the key findings of the research, presents the propositions, and highlights implications and limitations, together with future research opportunities. Section 5.6 concludes the chapter.

5.2 Background

In this section, the background of the research is discussed. I describe BPM and organizational culture as a factor of BPM adoption.

5.2.1 Business Process Management

Business Process Management (BPM) is defined as an approach for managing an organization from a process perspective (de Bruin & Doebeli, 2010). It is *the achievement of an organization's objectives through the improvement, management and control of essential business processes* (Jeston & Nelis, 2006). It requires the consideration of various aspects in order to be successfully and sustainably adopted, including strategic alignment, governance, methods, information technology, people and culture (Rosemann & vom Brocke, 2010).

However, the adoption of BPM, i.e. *the use and deployment of any BPM concepts in organizations* (Reijers et al., 2010), is very complex. BPM concepts range from governance structures, role definitions, and performance indicators to modelling tools and redesign techniques (Dumas et al., 2013). Adopting BPM requires a great deal of effort, time, resources and discipline. In this context, it has been observed that many BPM projects are unsuccessful in practice (Trkman, 2010), pointing to problems with adoption and justifying their benefits to business (Grisdale & Seymour, 2011). Because of its scope, BPM adoption is likely to trigger widespread organizational changes. It typically goes through multiple stages, such as: (1) awareness and understanding of BPM; (2) the desire to adopt BPM; (3) setting up, executing and monitoring BPM projects; (4) converting BPM projects into a BPM programme; and (5) ensuring that all BPM-related activities are consistently delivered in a cost-effective way (Rosemann, 2010).

5.2.2 Organizational culture and Business Process Management adoption

Many studies identify organizational culture as one of the key factors for a successful BPM adoption (Bandara et al., 2009; Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; Melenovsky & Sinur, 2006; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010). Organizational culture is composed of values, beliefs, attitudes and behaviours (Hofstede, 1993; Schein, 1996). It provides unwritten and often unspoken guidelines for how to get along in the organization and conveys a sense of identity to employees (Cameron & Quinn, 2006).

Organizational culture is considered to be important when organizations are trying to improve their organizational performance by changing business processes (Škerlavaj et al., 2007; Clemons et al., 1995; Guimaraes, 1997; Terziovski et al., 2003). It should be noted that most problems regarding BPM initiatives are not technical but arise from an inappropriate organizational culture (Škerlavaj et al., 2007). How people perceive changes and respond to them plays a crucial role in such efforts (Alibabaei et al., 2010). Although organizational culture is commonly considered a "soft-factor", its strong impact on the success of BPM adoption has been established (de Bruin, 2009).

BPM researchers agree that the organizational culture needs to be suitable if BPM adoption is to succeed (Alibabaei et al., 2010; vom Brocke & Schmiedel, 2011). If the BPM adoption conflicts with the existing organizational culture, the implementation of changes will be resisted (Alibabaei et al., 2010). Therefore, awareness of the role played by organizational culture in the success of BPM is essential (vom Brocke & Sinnl, 2011) and its characteristics should be seen as predecessors for the success of BPM projects (Bandara et al., 2009). However, organizational culture cannot be changed in a short period of time (Grugulis & Wilkinson, 2002) and changing it is very difficult (Lee & Dale, 1998). Therefore, the approach to BPM needs to be adapted to suit the existing organizational culture and goals of the organization.

5.2.3 Hierarchy culture and Business Process Management adoption

According to recent findings that Hierarchy culture appears to be the least favourable when it comes to adopting BPM (Hribar & Mendling, 2014), organizations with a predominant Hierarchy culture would have to consider making a greater effort to establish a successful BPM adoption. *Hierarchy culture* is characterised by a formal work environment where structure, control, coordination and efficiency are emphasised and procedures govern people's activities. Clear lines of decision-making authority, standardised rules and procedures, and control and accountability mechanisms are valued as the keys to success. Stability, predictability and efficiency characterise the long-term concerns of this organization, and maintaining a smooth-running organization is important (summarised from Cameron & Quinn, 2006).

There is very little research on the relationship between Hierarchy culture and BPM adoption, although there are some studies addressing the relationship between organizational culture

and Total Quality Management (TQM), which is closely connected to BPM and could be considered as part of a BPM initiative. These studies have produced somewhat different and even contradictory findings. For example, Prajogo and McDermott (2011) find that Hierarchy culture is positively related to process quality. Prajogo and McDermott (2005) also find that certain TQM practices, namely strategic planning, information and analysis, and process management, highly correlate with Hierarchy culture. They indicate that the structural and formal approaches which characterise several TQM practices positively and significantly predict quality management practices (Prajogo & McDermott, 2005). On the other hand, Alibabaei et al. (2010) find that "Hierarchical organizations have different policies and procedures that are clearly in contrast with business process concepts". Yong and Pheng (2008) also find that firms with a hierarchy-driven culture implement lowly to moderately all TQM. Ruževičius et al. (2012) find no significant correlation between the Hierarchy organizational culture and BPM success in terms of quality, cost or time improvements. They claim that Hierarchy culture is not the best way to achieve success in either BPM adoption or organizational efficiency. In addition, Dellana and Hauser (1999) find that TQM success is negatively correlated to the Hierarchy culture type.

In the following, a case study of a Slovenian organization with a dominant Hierarchy culture is presented where the focus is on investigating which specific measures are likely to support its success in adopting BPM.

5.3 Research methodology

In order to study the approach towards BPM adoption under the Hierarchy culture, a case study of a Slovenian public organization was conducted using both quantitative and qualitative methods. Single case studies are well accepted in the BPM literature (e.g. da Silva et al., 2012; Rohloff, 2009; Grisdale & Seymour, 2011) because they allow researchers to develop a deep understanding of BPM-related concepts that are still being intensively developed. In conducting the case study, I followed established guidelines for interpretive case study research (Yin, 1994), which is particularly suited to research questions which require a detailed understanding of social or organizational processes because of the rich data collected in context (Hartley, 2004, p. 323).

5.3.1 Measuring the organizational culture

For measuring the organizational culture, the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (2006, p. 26-28) is adopted. The OCAI is a well-established instrument for measuring organizational culture, which diagnoses the dominant orientation of an organization based on four core culture types: Clan, Adhocracy, Market and Hierarchy.

The OCAI is an instrument in the form of a questionnaire that utilises a 100-point summative scale and requires a respondent to self-report perceptions of the organization's current culture by responding to 24 declarative statements arranged in six sections representing the content

dimensions of organizational culture. These include *dominant characteristics*, *organizational leadership*, *management of employees*, *organizational glue*, *strategic emphasis*, and *criteria for success* (Cameron & Quinn, 2006). The respondent is asked to divide the 100 points among four alternatives for each content dimension of organizational culture, depending on the extent to which each alternative is similar to their own organization. Based on the respondent's scores, the averages are then computed for different alternatives representing the respective culture type of the respondent's organization.

5.3.2 Measuring the success of Business Process Management adoption

To be able to draw conclusions on the success of BPM adoption, it first needs to be operationalised on a measurable level. The literature offers general definitions of BPM adoption success, such as *continuously meeting pre-determined goals* (Trkman, 2010) and *sufficiently satisfying intended goals of the BPM initiative* (Bandara et al., 2009).

Due to this absence of an instrument, I follow Škrinjar and Trkman (2013), Thompson et al. (2009) and Dabaghkashani et al. (2012) in their use of proxies for measuring the success of BPM adoption. In line with Hribar and Mendling (2014), the Business Process Orientation maturity model (BPO maturity model) developed by McCormack and Johnson (2001, p. 176) and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004, p. 15) are used. Both are freely available, empirically validated, generic (i.e. used for business processes in general) and produce quantitative data. Both employ a 5-point Likert scale with anchors of 1 ("Strongly Disagree") and 5 ("Strongly Agree") and can be easily statistically analysed and compared. Higher levels of BPO and PPI indicate more successful BPM adoption and lower levels indicate less successful BPM adoption.

The BPO maturity model indicates the level of process orientation in the organization, based on four stages of BPO maturity: Ad Hoc, Defined, Linked and Integrated. *The PPI* serves as an overall measure of the process management environment in an organization and suggests how well an organization is managing its key business processes (Rummler-Brache Group, 2004). There are three stages of process management maturity: Process Management Initiation, Process Management Evolution and Process Management Mastery.

5.3.3 Case selection

As an appropriate case, I chose a ministry which has its main areas of work in the fields of labour, family, social affairs and equal opportunities, and at the time of the study employed approximately 200 people. The ministry was chosen for several reasons. It underwent a BPM initiative 4 years ago and has a dominant Hierarchy culture. It is also one of the rare cases (especially in the public sector) where a BPM initiative was carried out within the set budget and time frame, indicating that the initiative was successful. Moreover, a good connection with the company's management enabled broad access to confidential material, project documentation, and interviewees.

5.3.4 Data collection and analysis

Both qualitative and quantitative data were collected. The primary sources for the data collection were in-depth interviews, a review of case documentation about the BPM initiative (e.g. project reports, process models, process documentation) and an online survey on organizational culture (OCAI) and BPM adoption success (BPO and PPI). Interviewees were selected based on their role in the organization and their role in the BPM initiative. An interview guideline was developed with the outcome that all interviews followed the same protocol. The interviews took place in September and October 2013 and were conducted in Slovenian. On average, each interview lasted 35 minutes, depending on the availability of each interviewee. Table 16 shows information about the selected interviewees.

Table 16. Information about the interviewees

Respondent	Role in the BPM initiative	Involvement in the BPM project	Position at the time of the interview	Gender	Previous experience with BPM?
A	Project leader, owner of support processes	Involved in all phases, workshops and meetings	Secretary General	Female	No, just read about it
B	Support role: organizing meetings	Involved in all phases, workshops and meetings	Administration worker	Female	No
C	Process owner	Involved in all phases, workshops and meetings	Director General	Female	No
D	Participant in the process	Introductory workshop, modelling phase	Secretary	Male	No
E	Participant in the process	Just modelling phase	Secretary	Male	/
F	Process owner	Involved in all phases, workshops and meetings	Director General	Female	/
G	Process owner	Involved in all phases, workshops and meetings	Director General	Male	Yes, similar projects in previous job
H	Process owner	Involved in all phases, workshops and meetings	Director General	Female	Yes, similar projects in previous job
I	Participant in the process	Just modelling phase	Secretary	Female	/
J	Participant in the process	Introductory workshop, modelling phase	Secretary	Female	Yes, from education

The interviews were primarily guided by five key issues: (1) why is the organization engaged in a BPM initiative; (2) how was the BPM initiative carried out; (3) which problems did the

organization encounter during the BPM initiative; (4) which critical factors had an important impact on the success of the BPM initiative; and (5) how have work practices of individuals and groups changed in the light of BPM. In the interviews, further follow-up inquiries were allowed in order to gain a deeper understanding of the subject matter or to clarify individual responses.

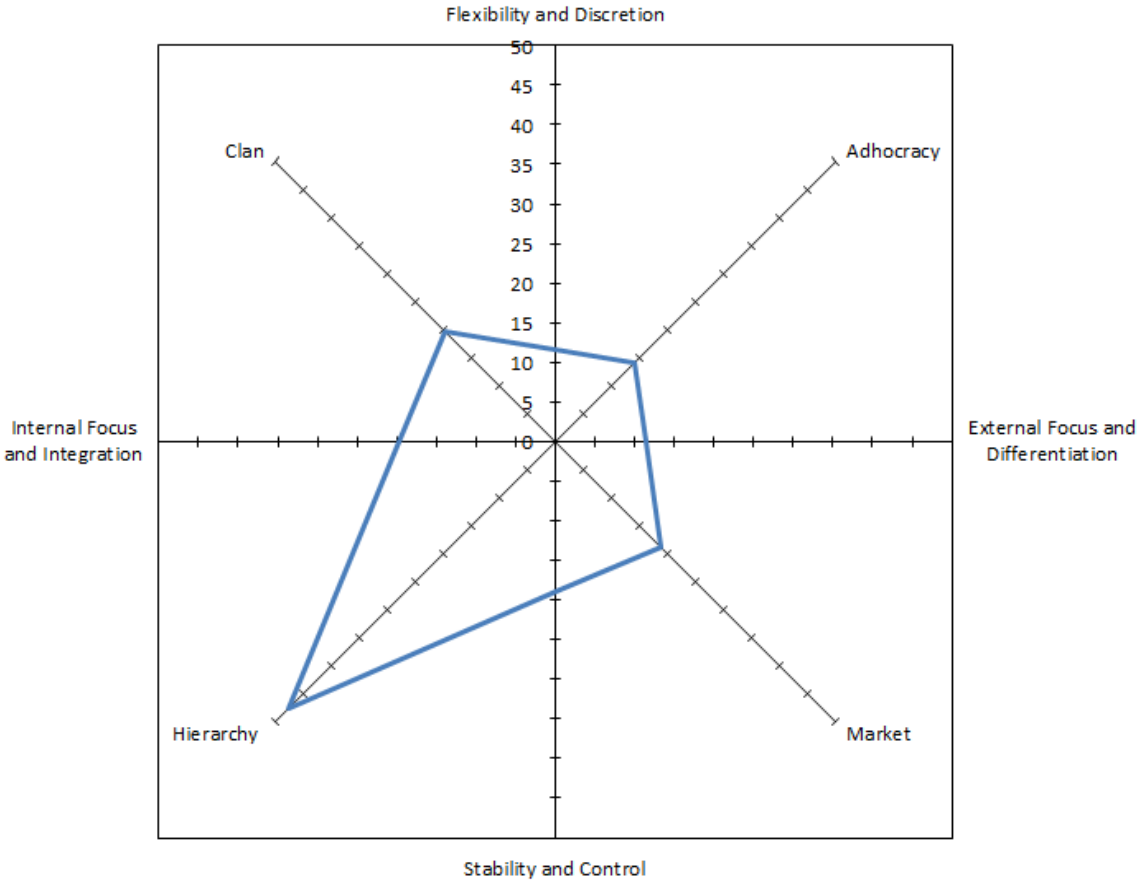
All interviews were recorded and transcribed afterwards. Data from the interviews and from project documentation were coded manually, using Atlas.ti as a data management tool. I followed the two-step coding process, beginning with basic coding in order to distinguish overall themes, followed by a more in-depth, interpretive coding in which more specific trends and patterns were interpreted (Hay, 2005). Data obtained from the online questionnaires were analysed according to the measurement models using Excel.

5.4 Case study

5.4.1 Organizational culture and Business Process Management adoption success at the ministry

The results of the OCAI indicate that the dominant organizational culture at the ministry is the Hierarchy culture. Figure 19 presents the organizational culture profile of the ministry.

Figure 19. Organizational culture profile of the ministry



The BPO and PPI at the ministry are 2.75 and 29, respectively. The BPO score of 2.75 indicates the ministry is at the *Defined* stage of BPO maturity (second of four stages), which means the basic processes are defined, documented and available in flow diagrams, and changing the processes is a formal procedure (McCormack & Johnson, 2001). The PPI score of 29 indicates the ministry is at the *Process Management Evolution* stage (second of three stages) where organizations are 'process-aware' and often have instituted formal process improvement programmes. Process owners are usually identified and, in some cases, the organizations already use the process and performance metrics. However, companies in this stage have not yet reached their full potential regarding the process management (Rummler-Brache Group, 2004).

5.4.2 Business Process Management initiative at the ministry

The ministry officially launched a BPM initiative in December 2010 and completed it in October 2011. The BPM initiative at the ministry encompassed the whole organization, that is, it affected core business processes as well as the organizational structure. The ministry aimed to streamline its operations and improve the horizontal and vertical transfer of information. Another reason for the BPM initiative was to determine the suitability of the current business processes and the suitability of the internal organization. The BPM adoption was initiated by the Minister, who closely cooperated with the Secretary General. Other participants in the initiative were Director Generals, external consultants and approximately 30 other employees. This was a typical top-down approach to BPM adoption, where the initiative came from top management (the leadership).

The BPM initiative at the ministry was carried out in four carefully selected phases, namely: (1) initiating the project with a special focus on educating employees about BPM; (2) modelling and describing the existing business processes; (3) analysing current processes and presenting the weaknesses of the current organizational structure; and (4) formulating a business process redesign, including the revised internal organization and measurable effects of reorganization. After that, the ministry started to implement changes.

During the first phase, several workshops were conducted. All employees who were later included in the process modelling and analysis took part in these workshops. At the workshops, external consultants presented the BPM project, the methodology and tools for process modelling, and explained the purpose and goals of the project. For most interviewees, this was their first contact with BPM, although a few had some experience with BPM in their previous jobs. The Minister and Secretary General especially were both familiar with BPM concepts and had some experience in this area. Moreover, they were very supportive of BPM and aware of its importance.

In the second phase, interviews with employees were used to develop business process models and process descriptions with the help of consultants. For this, the close cooperation of several employees in different positions in the same process was necessary. Employees

from different internal organizational units were given a chance to exchange the knowledge about each other's activities and procedures in the same business process.

In the third phase, the existing business processes were analysed by consultants. The suggestions for improvements noted by employees during the modelling phase were also considered. The analysis was presented to and confirmed by the Minister and other members of the strategic group (Secretary General and Director Generals).

The fourth phase focused on formulating suggestions for improvements. These were prepared on the basis of the detailed analyses in the third phase and several additional interviews and workshops with selected employees and the strategic group. After the fourth phase, the list of possible improvements identified during the project was further developed. A proposition was made to introduce a system of accountability for processes in terms of ownership and administration. Key employees were selected to implement the proposed changes and also to observe business processes at the ministry and propose further improvements in the future. External consultants were involved for one month, after that the ministry's employees had to take care of the improvements on their own.

5.4.3 Outcomes of the Business Process Management initiative at the ministry

Almost all interviewees agreed there were benefits of the BPM project, including improvements in their business processes or lessons they learned from participating in the project.

> *We got a good overview of the entire area of work. When I saw the suggestions of others, some of them were completely new to me, and I would have never thought about them on my own. It is very good to familiarise yourself with this (Respondent D).*

> *We learned that communication between employees is extremely important, and they have to feel appreciated (Respondent F).*

Another perceived benefit of the BPM project is the transparency of different work areas of the ministry and their specific issues, which are gathered in one place together with all the proposed changes. The analysis also provides the employees with grounds for arguing when dilemmas arise. Employees can therefore argue in favour or against a specific measure based on findings in the analysis. Also, when it comes to creating new processes or when processes are being renovated, certain employees see the results of the BPM project analysis very useful. The process models enable employees to visualise their business processes and better understand how their work relates to the end-to-end processes in the ministry.

> *I think it was very useful that business processes were modelled, which enabled a good visual representation of how work is done (Respondent E).*

In addition, process models and descriptions can be used in the training of new employees, as the Secretary General stated:

> *When new employees come to the ministry, they can easily acquaint themselves with areas of work by reviewing the process models and process descriptions we have. Before the project, this was not possible. Now we have process models and descriptions, which I think is very useful (Respondent A).*

Even though the general opinion of the BPM project is positive, not all employees were happy with the project results. Essentially, all employees were disappointed with how the proposed changes were realised – the implementation phase. Unfortunately, there were not many visible changes as a result of the BPM project. In fact, the majority of interviewees stated that there were no visible changes or improvements after the BPM project finished. The only really big visible change was the reorganization of the ministry, which was accepted with mixed feelings; some employees were happy with it and others were dissatisfied. When conducting the reorganization, not all of the proposed changes were implemented, also due to resistance, lack of motivation and individual arrangements with certain employees at the middle management level.

> *It seems to me that the employees were insufficiently motivated to change. … Here are directors, leaders who were not willing to change. Everyone is against the changes because they think it will be worse for them when, in fact, all together it could be better organized (Respondent J).*

> *I finished with the project at that time… This is not my area of work. Also the optimisation of work at the ministry is not my field of work (Respondent C).*

The process ownership was not successfully realised; when asked about it, all interviewees stated that process owners were appointed during the project. However, following the change in government, nothing was done in this area, no one wanted to deal with it.

> *Somehow the project was gradually dropped, and also the leadership changed. Nobody talked about the project anymore; there was no driving force to continue. If nothing else, during the project external consultants were constantly reminding us and making sure the project was progressing. After that, this was missing… Indeed, there should be some monitoring of the project even after it has officially ended. That would be much better (Respondent I).*

However, employees seem to agree that BPM is important and something that is necessary for an organization. Some smaller changes that were implemented during the BPM project are reducing the number of signatories, which has led to less time being spent on signing administrative decision documents, several processes are more optimal and employees can focus on important tasks without unnecessary activities. Also, the procedures are more unified.

5.5 Discussion

In this section, I summarise the key findings of the case study, provide propositions, and discuss the implications, limitations and future research.

5.5.1 Business Process Management adoption factors at the ministry

According to the interviews, the BPM project was well planned and well communicated. To avoid conflicts as much as possible, the project's purpose and goals had to be clearly defined and explained to all employees. Communication is the key to success in any project. If the purpose and goals of the project are explained to employees, it would be much easier for them to work in the project and they will not feel a need to resist.

> *First, the purpose of the project should be explained to all middle managers, and then communicated further to all other employees. It should be emphasised that the goal of the project is not the dismissal of employees. The goal is to eliminate the unnecessary duplication of tasks by optimising the business processes, and getting an overview of who is doing what (Respondent H).*

All employees were informed about the project by e-mail and in letters from the Minister. The Minister was also actively involved in the project, which contributed to the employees' awareness that they needed to cooperate in the project and take it seriously. Due to the strong support of the leadership, there was almost no resistance to participate from employees. The experience with employee cooperation in this project was very good compared to other instances when the Minister was not actively involved. All interviewees also agreed that, without the leadership support, a project is doomed to fail.

> *The key thing in such efforts is to what extent the leadership identifies itself with the project. If the leadership is not supportive of the project, or does not insist on finishing the project and implementing the proposed changes, the whole thing is 'pointless' all together (Respondent G).*

The project was led in accordance with the guidelines for project management, in a formal, organized and controlled way. The Secretary General, who was the project leader, is convinced this was the only way to successfully keep the project within the set time frame and budget; otherwise, things would have gone wrong very quickly as it is difficult to stay on top of so many different activities and participants in the project. All the other interviewed participants also agreed that the BPM project was conducted in a correct way and seemed content with this kind of project management.

> *If you do not approach a project in a systemised and organized way from the very beginning, it cannot be successfully completed in the way you intended. In such projects, it is necessary to have a good overview of things (Respondent A).*

This approach is in line with the characteristics of the Hierarchy culture where control, coordination and efficiency are emphasised. In organizations with the Hierarchy culture, effective leaders are considered to be good coordinators and organizers, and maintaining a smooth-running organization is important (Cameron & Quinn, 2006).

The interviewees also recognized the importance of external consultants and involvement of the right people with sufficient knowledge and motivation for completing the project. Moreover, a decision maker who takes responsibility for implementing the changes is necessary to ensure that the conclusions of the project (the proposed changes) are considered.

> *I think that those measures still unrealised should be implemented. However, this depends on the leadership (top management). … The leader should decide on how the measures will be implemented and firmly stand behind his/hers decision. In our case, the decision maker was missing at the end of the project. At some point in the project, the leader has to make a decision. It is not good enough to leave the decision to five directors at the same level in the organization; they will not be able to reach an agreement. No, you are the boss and you should decide how it is going to be (Respondent G).*

This is also typical for the Hierarchy culture. Clear lines of decision-making authority and accountability mechanisms are valued as the keys to success (Cameron & Quinn, 2006).

5.5.2 Lessons learned from the case study

The analysis shows that the approach towards BPM adoption was in line with the Hierarchy culture, which is the dominant organizational culture type at the ministry. The BPM initiative was managed in an organized and controlled way. The project was well planned and well communicated and any problems were resolved promptly.

> *Personally, this project further confirmed my belief that orderliness in things is very important. I am convinced that, without order and a systematic approach, the project would not be completed. The project has to be very well designed at the beginning with all the necessary elements. You need to know exactly what you are doing and why you are doing it and, if things start to deviate, you have to act immediately (Respondent A).*

One thing missing at the end of the project was a decision maker who would make decisions on implementing the changes. The poor economic situation and unstable political environment in the country also did not help. In fact, had the external factors been more favourable for the BPM adoption, the ministry could probably have achieved much better results. Another thing that stands out from the analysis is the role of the external consultants, which appeared to be very important in the project.

> *The involvement of the external consultants was absolutely necessary. We needed their objective view, unburdened by internal personal disagreements (Respondent B).*

External consultants were only involved during the first month of the implementation phase. After that, the ministry was executing changes on its own and the enthusiasm for improvements dropped rapidly. The motivation would probably have been higher had external consultants also been engaged during the implementation phase to encourage changes.

The findings from the case study can be summarised in seven points, representing the main lessons that proved to be useful in the studied case of an organization with a Hierarchy culture. Some of these findings can be directly linked to the characteristics of the Hierarchy culture (numbers 3 and 7), while others are more general and thus cannot be assigned to a specific type of organizational culture.

1. The importance of total leadership support. It is advisable for the leadership to be actively involved in the BPM initiative, showing the employees that top management fully supports the initiative and that their efforts and cooperation are important for the organization.
2. Taking the time to plan the BPM initiative. It is important to get it right from the very beginning; changing plans and making corrections after the project has already started is difficult.
3. The BPM adoption should be approached systematically in a formal, organized and controlled way. It is necessary to have a good overview of the project at all times and to take action as soon as problems arise. The project leader should be a good coordinator and organizer with experience in project management.
4. Communication is the answer to many problems. It is important that all employees are informed about the BPM initiative and that they understand the goals and what is expected of them. Special efforts should be made to win over middle management.
5. It is important to keep the big picture in mind. Managers should pay attention to what is good for the organization as a whole, and not what is good for certain individuals in the organization. When making decisions, one should be as objective as possible and try to minimise the influence of personal views and personal relationships within the organization.
6. The involvement of external consultants is very important and recommended in organizations where: (1) knowledge and experience with BPM inside the organization is insufficient; (2) there is a need for an external view and objective opinion, unburdened by internal relationships (e.g. where there are many internal disagreements between employees in the organization, a bad organizational atmosphere); and/or (3) employee motivation for changes is low and the driving force to complete the project is missing.
7. Decision-making authority should be clearly defined. After the results of the analysis are discussed and changes proposed, a decision maker has to take responsibility for their implementation.

5.5.3 Propositions[8]

The case study is based on the proposition that the approach towards BPM adoption needs to fit with the culture of the organization and that culture drives the appropriate initial approach towards BPM adoption (Armistead & Machin, 1997). Since organizational culture is difficult to change (Lee & Dale, 1998; Alibabaei et al., 2010) and also cannot be changed within a short period of time (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004), the approach towards BPM adoption should be adjusted to suit the existing organizational culture.

Based on the case study analysis, several propositions are given on how BPM adoption can be approached in an organization with a dominant Hierarchy culture. These propositions directly relate to the characteristics of the Hierarchy culture as defined by Cameron and Quinn (2006).

> *Proposition 1: BPM adoption in an organization with a Hierarchy culture is more successful when the BPM initiative is led in a formal, organized and controlled way.*
>
> *Proposition 2: BPM adoption in an organization with a Hierarchy culture is more successful when standardised rules and procedures regarding BPM are introduced.*
>
> *Proposition 3: BPM adoption in an organization with a Hierarchy culture is more successful when process roles and responsibilities are precisely defined and assigned to appropriate employees.*
>
> *Proposition 4: BPM adoption in an organization with a Hierarchy culture is more successful when the decision-making authority is clearly defined.*
>
> *Proposition 5: BPM adoption in an organization with a Hierarchy culture is more successful when control over the implementation of changes is established.*

On the whole, this set of propositions holds implications for how organizations with a Hierarchy culture should approach BPM adoption. Future research should address these propositions and show whether the findings of this research also apply to other organizations with a Hierarchy culture. So far, the propositions are based on the findings of a single case study, thus the possibilities for generalising these findings are quite weak. To be able to make valid and generalisable conclusions regarding the appropriate approach to BPM adoption under a Hierarchy culture, further research on this topic is required. Future research should include similar case studies in organizations with a dominant Hierarchy culture.

5.5.4 Implications, limitations and future research

Previous studies have established the importance of organizational culture for the success of BPM adoption and found a significant negative correlation between the Hierarchy culture type and BPM adoption success. However, it has not yet been researched how to approach

[8] Section *5.5.3 Propositions* was added for the purpose of the dissertation and is not part of the original paper.

BPM adoption in an organization depending on its organizational culture. This chapter presents a case study of BPM adoption in an organization with a Hierarchy culture and identifies some methods that proved to be useful in that specific setting. Some of these methods can be directly linked to the characteristics of a Hierarchy culture while others are more general and thus cannot be assigned to a specific type of organizational culture. This work extends the body of knowledge regarding cultural issues in BPM, and thereby contributes to more successful BPM adoption.

However, the limitation of this research is that it is based on a single case study, limiting the ability to make an empirical generalisation. Therefore, I propose additional research in this area. More case studies and empirical investigations are needed to confirm and expand my findings. Further, it will be important to investigate which specific measures are likely to support BPM adoption success under different organizational cultures, not only the Hierarchy culture.

5.6 Conclusion

Organizations should be aware of their dominant organizational culture type and its characteristics and choose the appropriate approach towards BPM adoption. I believe that organizations can better prepare for their BPM initiative by including an organizational culture analysis in the preparatory phase. In this way, they can adapt the approach to the BPM adoption to fit with their organizational culture.

In this chapter, I analyse the approach towards BPM adoption under a Hierarchy culture, which is considered to be the least favourable for adopting BPM. The findings indicate that for Hierarchy culture the approach to BPM adoption should be formal, well organized and controlled. Particular emphasis should be put on providing leadership support and active involvement, proper planning and communication, and an orderly way of managing the BPM initiative. In addition, authority regarding the decision making should be clearly defined.

6 BUSINESS PROCESS MANAGEMENT ADOPTION UNDER A HIERARCHY-MARKET CULTURE: A CASE STUDY OF AN INSURANCE COMPANY[9]

ABSTRACT

Organizational culture affects the success of Business Process Management (BPM) adoption. Since organizational culture is difficult to change, organizations should adapt their approach towards BPM adoption to suit the existing organizational culture. The aim of this chapter is to find out what approach towards BPM adoption might be appropriate in an organization with a Hierarchy-Market culture. For this, a case study of a large insurance company in South-East Europe is conducted. The findings show that elements, such as a formal and well-organized approach, and emphasis on the benefits of BPM contributed to BPM adoption success in the studied organization with a Hierarchy-Market culture.

Key words: business process management, organizational culture, Hierarchy-Market culture, approach towards BPM adoption, success, case study

6.1 Introduction

Business processes management (BPM) is considered to be among the top priorities for many organizations (Bandara et al., 2009). It is a concept that can, if successfully adopted, bring significant benefits to the organization, such as a better understanding of its business processes, greater control, better business performance (Škrinjar et al., 2008) and an agile adaptation to changing business requirements (Neubauer, 2009). However, many organizations fail in their attempt to successfully adopt BPM (Trkman, 2010). The question of why certain projects succeed and others fail is an important area of research (Grisdale & Seymour, 2011; Alibabaei et al., 2010; Bandara et al., 2009).

Several studies show that organizational culture might have a significant impact on BPM adoption (e.g. Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010) or that it might be connected with its failure and success (Melenovsky & Sinur, 2006; Bandara et al., 2009; Ravesteyn & Versendaal, 2007). It is argued that cultural characteristics in organizations may provide either suitable conditions or hindrances for the success of BPM adoption (Bandara et al., 2009). Also certain values are mentioned to be supportive of BPM objectives or to be road blocks (vom Brocke & Sinnl, 2011). A recent study that uses statistical methods to investigate the correlation between organizational culture and BPM adoption success shows that certain organizational culture types seem to be more favourable and others less favourable for BPM adoption (Hribar &

[9] This section of the dissertation has been accepted and is due to be published as Buh, B. & Indihar Štemberger, M. (Forthcoming). Approach towards BPM adoption under Hierarchy-Market culture: a case study of insurance company, *Economic and Business Review*, Forthcoming.

Mendling, 2014). The authors find a significant negative correlation between the Hierarchy culture type and BPM adoption success, identifying the Hierarchy culture as the least favourable for adopting BPM. The authors also find that organizations with a dominant Market culture appear to be more successful with BPM adoption than organizations with a dominant Hierarchy culture. Thus, they identify Market culture as more favourable for adopting BPM than Hierarchy culture.

While previous research has statistically shown that the success of BPM adoption varies between different types of organizational culture, this chapter focuses on investigating which specific measures are likely to support the adoption of BPM in an organization depending on its organizational culture. Thus, the aim of this chapter is to contribute to knowledge about the possible approach to BPM adoption under a specific organizational culture. To this end, a case study design is used in order to find out which approach towards BPM adoption might be appropriate in an organization with a Hierarchy-Market culture.

The chapter is structured as follows: Section 6.2 provides the research background. Section 6.3 presents the research methodology, followed by a description of the case study and analysis in section 6.4. Section 6.5 summarises the key research findings and highlights implications and limitations, together with future research opportunities. Section 6.6 concludes the chapter.

6.2 Background

In this section, the background of the research is discussed. I describe BPM adoption and organizational culture as a factor of BPM adoption.

6.2.1 Business Process Management adoption

Business Process Management (BPM) is defined as an approach for managing an organization from a process perspective (de Bruin & Doebeli, 2010). It is *the achievement of an organization's objectives through the improvement, management and control of essential business processes* (Jeston & Nelis, 2006). It requires the consideration of various aspects in order to be successfully and sustainably adopted, including strategic alignment, governance, methods, information technology, people and culture (Rosemann & vom Brocke, 2010).

The adoption of BPM is a complex process. For the purpose of this chapter, BPM adoption is defined as *the use and deployment of BPM concepts in organizations* (Reijers et al., 2010). These concepts range from governance structures, role definitions, and performance indicators to modelling tools and redesign techniques (Dumas et al., 2013). BPM adoption requires a great deal of effort, time, resources and discipline. In this context, it has been observed that many BPM initiatives (i.e. *organizational projects/programmes that aim to enhance the efficiency and effectiveness of business processes*) are unsuccessful in practice (Trkman, 2010), pointing to problems with adoption and justifying their benefits to business (Grisdale & Seymour, 2011). Given its scope, BPM adoption is likely to trigger widespread

organizational changes. It typically goes through multiple stages, such as: (1) awareness and understanding of BPM; (2) the desire to adopt BPM; (3) setting up, executing and monitoring BPM projects; (4) converting BPM projects into a BPM programme; and (5) ensuring that all BPM-related activities are consistently delivered in a cost-effective way (Rosemann, 2010).

6.2.2 Organizational culture and Business Process Management adoption

Many studies identify organizational culture as one of the key factors for a successful BPM adoption (Bandara et al., 2009; Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; Melenovsky & Sinur, 2006; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010). Organizational culture is composed of values, beliefs, attitudes and behaviours (Hofstede, 1993; Schein, 1996). It provides unwritten and often unspoken guidelines for how to get along in the organization and conveys a sense of identity to employees (Cameron & Quinn, 2006).

Organizational culture is considered to be important when organizations are trying to improve their organizational performance by changing business processes (Škerlavaj et al., 2007; Clemons et al., 1995; Guimaraes, 1997; Terziovski et al., 2003). It should be noted that most problems with BPM initiatives are not technical but arise from an inappropriate organizational culture (Škerlavaj et al., 2007). How people perceive changes and respond to them plays a key role in such efforts (Alibabaei et al., 2010). Although organizational culture is commonly considered a "soft-factor", its strong impact on the success of BPM adoption has been established (de Bruin, 2009).

BPM researchers agree that the organizational culture needs to be suitable for BPM adoption to succeed (Alibabaei et al., 2010; vom Brocke & Schmiedel, 2011). If a BPM adoption conflicts with the existing organizational culture, the implementation of changes will be resisted (Alibabaei et al., 2010). Therefore, awareness of the role the organizational culture plays in the success of BPM is essential (vom Brocke & Sinnl, 2011) and its characteristics should be seen as predecessors for the success of BPM projects (Bandara et al., 2009). However, organizational culture cannot be changed in a short period of time (Grugulis & Wilkinson, 2002) and changing it is difficult (Lee & Dale, 1998). Therefore, the approach to BPM needs to be adapted to suit the existing organizational culture and goals of the organization.

6.2.3 Hierarchy-Market culture and Business Process Management adoption

According to recent findings showing that the Hierarchy culture appears to be the least favourable for adopting BPM (Hribar & Mendling, 2014), organizations with a predominant Hierarchy culture would have to consider making a bigger effort to establish a successful BPM adoption. *Hierarchy culture* is characterised by a formal work environment where structure, control, coordination and efficiency are emphasised and procedures govern people's activities. Clear lines of decision-making authority, standardised rules and procedures, and control and accountability mechanisms are valued as the keys to success. Stability, predictability and efficiency characterise the long-term concerns of this organization, and

maintaining a smooth-running organization is important (summarised from Cameron & Quinn, 2006).

In contrast, Market culture appears to be more favourable to the adoption of BPM (Hribar & Mendling, 2014). *Market culture* is a results-oriented workplace focused on goals and creating a competitive advantage. The main values that dominate Market-type organizations are profitability, competitiveness, productivity and goal achievement. Competitiveness and productivity in Market organizations are achieved through a strong emphasis on external positioning and control. The major task of management is to drive the organization toward productivity, results and profits. It is assumed that a clear purpose and an aggressive strategy lead to productivity and profitability (summarised from Cameron & Quinn, 2006).

There is little research on the relationship between Hierarchy and Market culture and BPM adoption. However, some studies address the relationship between organizational culture and Total Quality Management (TQM), which is closely connected to BPM and could be considered as part of a BPM initiative. These studies produced somewhat different and even contradictory findings. For example, Prajogo and McDermott (2011) find that the Hierarchy and Market cultures are positively related to process quality. Gimenez-Espin, Jiménez-Jiménez and Martínez-Costa (2013) find that the effects of the Hierarchy and Market cultures on quality management are negative. Gambi et al. (2015) find that Market and Hierarchy cultures are positively connected to the use of quality techniques like goal setting, measurement and failure prevention/control, and that Market culture is also positively associated with the use of continuous improvement techniques. Zu, Robbins and Fredendall (2010) find that Market culture is compatible with TQM/Six Sigma practices whereas they do not find any significant links between these practices and Hierarchy culture. In fact, Hierarchy culture was found to be the least influential when it comes to implementing TQM/Six Sigma practices (Zu et al., 2010). On the other hand, Prajogo and McDermott (2005) find that the TQM practices of strategic planning, information and analysis, and process management highly correlate with Hierarchy culture.

In the following, a case study of a large insurance company with a dominant Hierarchy-Market culture is presented, which concentrates on investigating which specific measures are likely to support its BPM adoption success.

6.3 Research design and methodology

A mixed method approach was used to answer the research question. A survey-based research design was used for evaluating organizational culture and for measuring the success of BPM adoption, and a case study was conducted to research the approach to BPM adoption. Single case studies are well accepted in the BPM literature (e.g. da Silva et al., 2012; Rohloff, 2009; Grisdale & Seymour, 2011) because they allow researchers to develop a deep understanding of BPM-related concepts that are still undergoing intensive development. In conducting the case study, the established guidelines for interpretive case study research (Yin, 1994) were

followed, which is particularly appropriate for research questions requiring a detailed understanding of social or organizational processes due to the rich data collected in context (Hartley, 2004, p. 323).

In this section, first the selected measurement model that was applied to assess the organizational culture is described. Second, the measurement of BPM adoption success is discussed, and then the case selection is presented. Finally, the data collection and analysis are discussed.

6.3.1 Measuring the organizational culture

To measure the organizational culture, the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (2006, p. 26-28) is adopted. The OCAI is a well-established instrument for measuring organizational culture, which diagnoses the dominant orientation of the organization based on four core culture types: Clan, Adhocracy, Market and Hierarchy.

The OCAI is an instrument in the form of a questionnaire that employs a 100-point summative scale and requires a respondent to self-report perceptions of the organization's current culture by responding to 24 declarative statements arranged in six sections representing the content dimensions of organizational culture. These include *dominant characteristics*, *organizational leadership*, *management of employees*, *organizational glue*, *strategic emphasis*, and *criteria for success* (Cameron & Quinn, 2006). The respondent is asked to divide the 100 points among four alternatives for each content dimension of organizational culture, depending on the extent to which each alternative is similar to his or her own organization. Based on the scores of the respondent, the averages are then computed for different alternatives representing the respective culture type of the respondent's organization.

6.3.2 Measuring the success of Business Process Management adoption

To be able to draw conclusions on success in BPM adoption, it first needs to be operationalised on a measurable level. The literature offers general definitions of BPM adoption success, such as *continuously meeting pre-determined goals* (Trkman, 2010) and *sufficiently satisfying intended goals of the BPM initiative* (Bandara et al., 2009).

Due to this lack of an instrument, I follow Škrinjar and Trkman (2013), Thompson et al. (2009) and Dabaghkashani et al. (2012), who use proxies to measure the success of BPM adoption. In line with Hribar and Mendling (2014), the Business Process Orientation maturity model (BPO maturity model) developed by McCormack and Johnson (2001, p. 176), and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004, p. 15) are used. Both are freely available, empirically validated, generic (i.e. used for business processes in general) and produce quantitative data. They both use a 5-point Likert scale with anchors of 1 ("Strongly Disagree") and 5 ("Strongly Agree") and can be easily statistically analysed and

compared. Higher BPO and PPI levels indicate more successful BPM adoption and lower levels indicate less successful BPM adoption.

The BPO maturity model indicates the level of the process orientation in the organization, based on four stages of BPO maturity: Ad Hoc, Defined, Linked and Integrated. *The PPI* serves as an overall measure of process management environment in an organization and suggests how well an organization is managing its essential business processes (Rummler-Brache Group, 2004). There are three stages of process management maturity: Process Management Initiation, Process Management Evolution and Process Management Mastery.

6.3.3 Case selection

As an appropriate case, a large insurance company in South-East Europe was chosen (hereinafter referred to as Insur), which has its main areas of work in the fields of non-life insurance, life insurance, supplementary voluntary pension insurance, and health insurance. At the time of the study, the company employed around 2,400 people. Insur was chosen for several reasons. It underwent a BPM initiative in the last 5 years and has a dominant Hierarchy-Market culture. It is also one of the few cases where BPM concepts are actually used in its daily practice, which indicates the initiative was successful. Further, the company's management was willing to participate in the case study and enabled access to interviewees and project documentation.

6.3.4 Data collection and analysis

Both quantitative and qualitative data were collected. The primary sources for the data collection were an online survey on organizational culture and BPM adoption success, in-depth interviews, and review of case documentation about the BPM initiative (e.g. project reports, process models, process documentation).

The online survey on organizational culture was translated to Slovenian and sent by e-mail to 594 randomly selected employees at different levels in the company, including CIOs, process owners, department leaders, executives and other employees. All participants were assured complete anonymity. The data were collected in September 2013. Out of 594 questionnaires sent, a total of 152 survey responses were received, yielding a 25.6% response rate. An online survey on BPM adoption success was also prepared, which was addressed to the Head of the BPM office (the BPM project leader), who should have the best understanding of BPM adoption in the company. Data obtained from the online surveys were analysed according to the measurement models using MS Excel. In addition to the survey on BPM adoption success, I reviewed the process documentation and observed the company's repository of business processes in order to more objectively determine the success of the BPM adoption at Insur. Several employees involved in the BPM initiative were also interviewed to find their point of view on the company's success with the BPM adoption.

The interviewees were selected based on their role in the organization and their role in the BPM initiative. An interview guideline was developed so that all interviews followed the

same protocol. The interviews took place in September and October 2013 and were conducted in Slovenian. On average, each interview lasted 60 minutes, depending on the availability of an individual interviewee. I interviewed the project leader, project supervisor, four members of the core project group, and nine other employees who participated in the project. Out of fifteen interviewees, seven were male and eight female.

The interviews were guided by five key issues: (1) why is the organization engaged in the BPM initiative; (2) how was the BPM initiative carried out; (3) which problems did the organization encounter during the BPM initiative; (4) which critical factors had an important impact on the BPM initiative's success; and (5) how have the work practices of individuals and groups changed in the light of the BPM. In the interviews, further follow-up inquiries were allowed so as to gain a deeper understanding of the subject matter or to clarify individual responses.

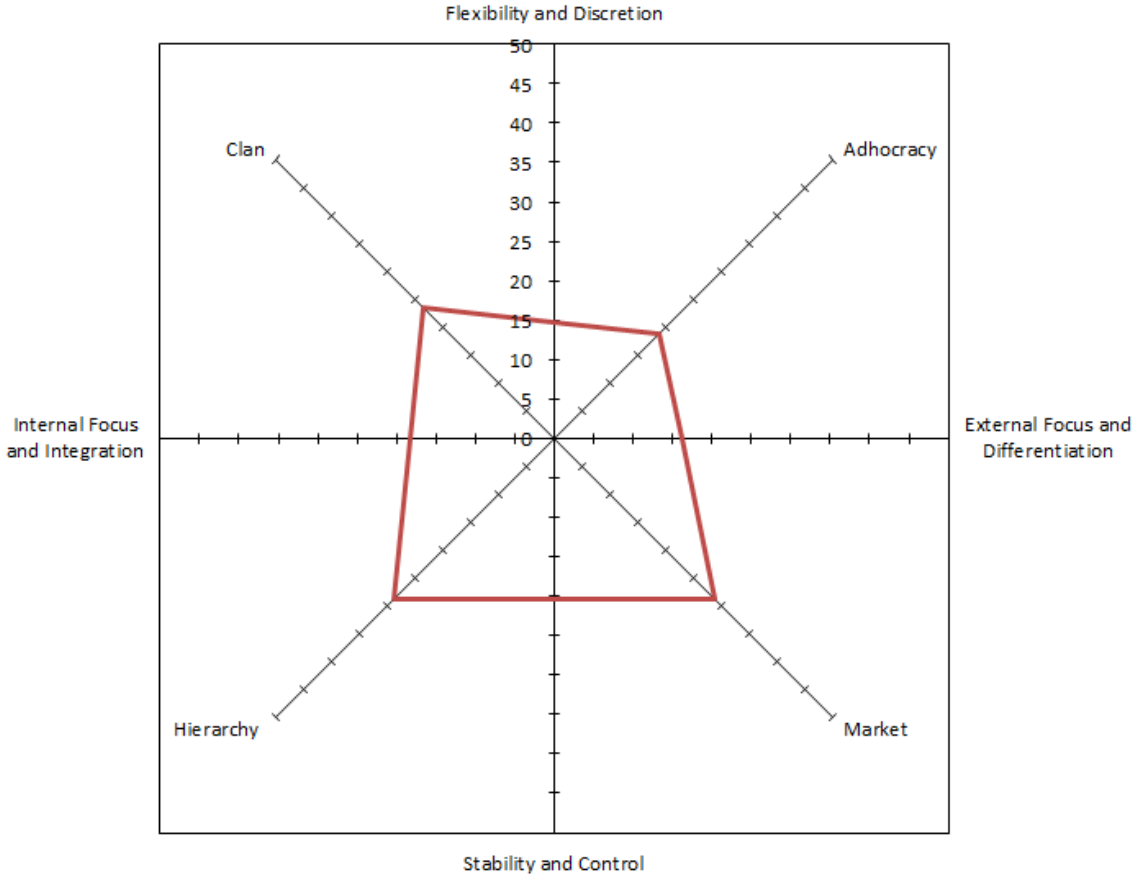
All interviews were recorded and transcribed afterwards. Data from the interviews and from the project documentation were coded manually, using Atlas.ti as a data management tool. I followed the two-step coding process, starting with basic coding in order to distinguish overall themes, followed by a more in-depth, interpretive coding in which more specific trends and patterns were interpreted (Hay, 2005).

6.4 Case study description

6.4.1 Organizational culture and Business Process Management adoption success at Insur

The OCAI results indicate that the dominant organizational culture at Insur is the Hierarchy-Market culture, meaning that it has characteristics of both the Market and Hierarchy culture types. Figure 20 presents the organizational culture profile of Insur.

Figure 20. Organizational culture profile of Insur



The BPO and PPI at Insur are 3.75 and 35, respectively. The BPO score of 3.75 indicates that Insur is at the *Linked* stage of BPO maturity (third of four stages), which is also known as the breakthrough level. At this level of BPO, the managers employ the process management with strategic intent and results, and broad process jobs and structures are put in place outside the traditional functions, including the introduction of process ownership (McCormack & Johnson, 2001). The PPI score of 35 indicates that Insur is at the *Process Management Evolution* stage (second of three stages) where organizations are 'process-aware' and have often instituted formal process improvement programmes. Process owners are usually identified and, in some cases, the organizations already use the process and performance metrics. However, companies in this stage have not yet reached their full potential regarding the process management (Rummler-Brache Group, 2004).

To be able to more objectively argue why the BPM initiative at Insur was considered successful, the project reports and process documentation were also reviewed, including several process models, process descriptions and the company's definitions of different process roles and responsibilities. In addition, I could observe the company's repository of business processes and discuss the BPM initiative with several employees at different levels in the company. Based on the findings, I could conclude that the BPM concepts are actually used in daily practice, indicating the BPM initiative was indeed successful.

6.4.2 Previous experience with Business Process Management at Insur

Before the BPM project in May 2010, Insur had some previous experience with BPM. For the purpose of ISO standard certificates the company had process models for key processes. However, these process models were on a higher level (not detailed) and were rarely updated – depending on audits and the requirements of the ISO standard. In 2006, the company was faced with the need for major changes, reorganization, centralisation, etc. At that point, many inconsistences in business processes were found (e.g. each regional unit had its own way of working). Thus, the idea emerged for a BPM project with the aim of standardising the business processes, preparing better and updated process models, establishing process ownership, etc.

In the first attempt to adopt BPM a department for business processes (BPM office) was established, which had the assignment to model the processes. However, it did not catch on and the exercise was gradually dropped. For some time, nothing happened in this area until the end of 2008, when an external consultant was hired to model and document the core business processes, identify problems and suggest improvements in terms of initiatives that should be started at the company. This project lasted 3 months, during which employees worked closely with each other and the external consultant. At that time, a new head of the department for business processes and organization was appointed. He was involved in all activities during the project, which allowed him to learn from this experience, especially about the approach to BPM adoption.

> *Since I was actively involved throughout the entire project, I picked up a few things from there for our later BPM initiative. This was much easier than having to start by ourselves from scratch. The method of work, how to approach the initiative, conducting workshops, what is relevant and what is not – these are all things I picked up from the external consultant (Head of BPM office).*

The project in 2008–2009 actually gave impetus to the BPM initiative in 2010. Because of it, employees began to talk more about the processes, the importance of a process approach, and the fact that mere reorganization would not bring improvements if the processes were not improved as well. Moreover, employees learnt about the approach to process management and then continued with the BPM initiative on their own. The process models and documents made during the 3-month project were later used as templates.

6.4.3 The Business Process Management initiative at Insur

Insur officially launched a BPM initiative in May 2010 and completed it in June 2013. This initiative formed part of a broader business process renovation programme, consisting of several different projects (e.g. establishment of change management, internal document management system implementation, etc.). The BPM initiative at Insur affected all operational business processes (core and support business processes) but excluded leadership

and management processes. This was a large-scale project with a high priority, which was also included in the company's strategy.

Insur aimed to establish a comprehensive BPM methodology in order to provide a unified and systematic approach to process management focusing on the constant monitoring and improvement of processes in a systematic and organized way. The main goals were to facilitate the realisation of the company's strategic objectives, coordinate processes and business needs, adjust the processes to the environment (i.e. market conditions, conditions in the company, new products, new technological possibilities, new IT support and other circumstances), provide an overview of the processes in the company, properly connect the individual processes in the company and ensure they are efficiently performed and, finally, to measure and continuously improve processes.

The BPM project was initiated by the executive director for business processes and organization, who was the project supervisor. The project leader was the head of the department for business processes and organization (BPM office), who closely cooperated with the project supervisor and four other members of the core project group. Other participants in the project were included in the broader project group (executive directors and selected employees at the operational level). The project group consisted of employees from different business areas (at least one employee from each business area was included so that all business areas were represented).

The project was implemented exclusively through internal sources and the employees' own knowledge. Insur has a well-established project approach with the project office as an independent organizational unit. Project management is at a high level and enables the systematic implementation of activities leading to the pursued objective. For each project a project document is made, which includes all relevant information about the project, such as the project scope, goals, KPIs, phases, assignments, results, risks, corrective measures, resources, costs, etc.

In addition to the project management, the company established change management to reduce the risk of projects stopping due to the employees' resistance to changes. The company adopted the so-called ADKAR methodology for change management and adapted it to suit its needs. The Prosci ADKAR model consists of five steps, namely: (1) awareness of the need for change; (2) the desire to make the change happen; (3) knowledge about how to change; (4) ability to implement new skills and behaviours; and (5) reinforcement to retain the change once it has been made.

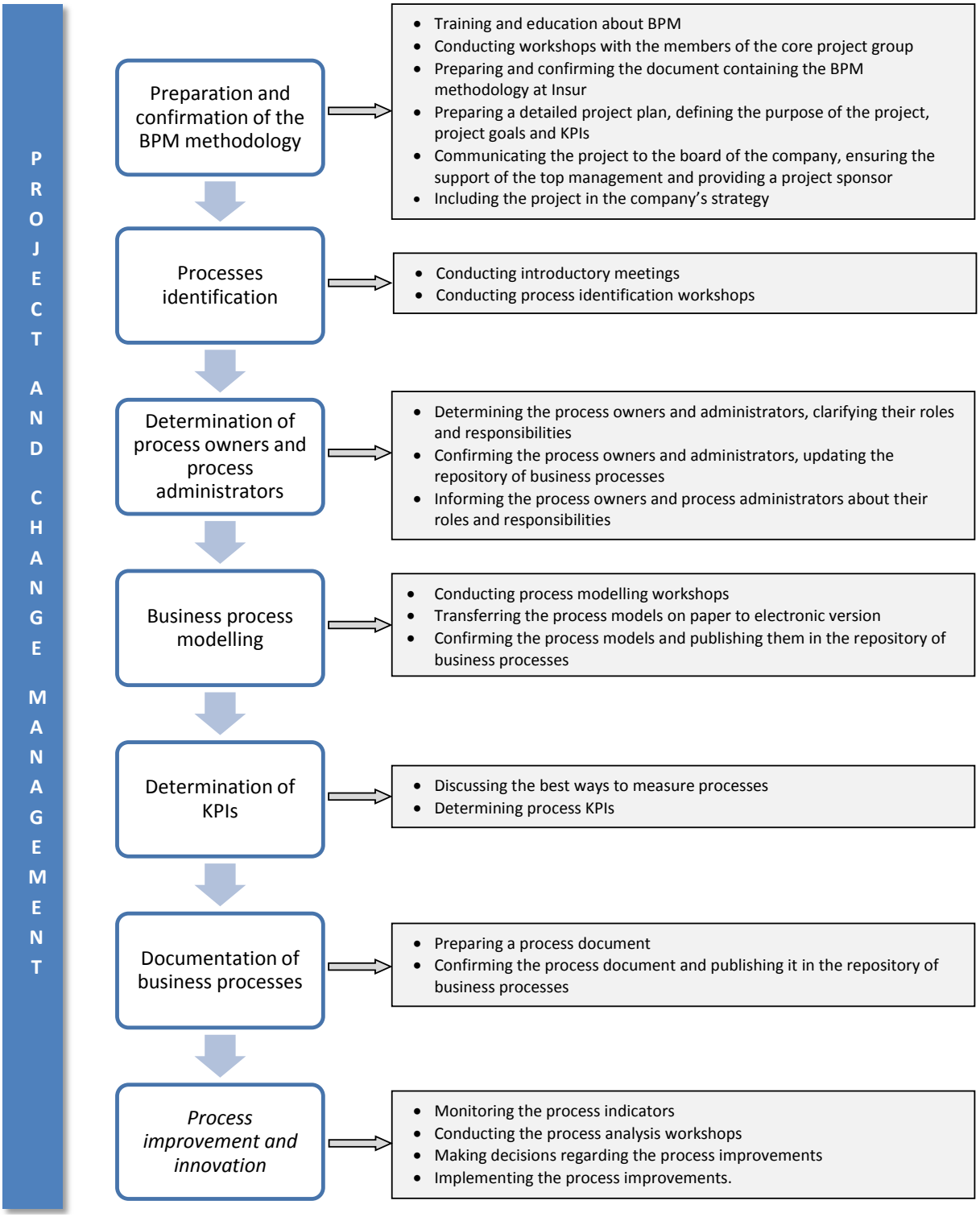
When major changes are needed and the risk of employee resistance is high, the change manager conducts the ADKAR analysis based on several questionnaires. The results of this analysis show how prepared the employees are to participate in the specific project and if there is a need for change. After that, an action plan is made and changes are implemented

according to it. During all these steps, communication between employees is established and encouraged by the change manager. Any change must be well communicated.

> *I think resistance is quite a normal thing when changes are introduced. Therefore, it is necessary to manage the change implementation from the very beginning or from the start of the project. For this, you need to prepare and identify key milestones where resistances may occur and manage them in the sense that you give the right information to all employees involved (e.g. why the change is necessary, how it will affect them, etc.). I think that communication is essential here. Regardless of whether you are in favour or against the change, you feel a need to resist if you are not informed about it or are excluded from the decision-making. Anyway, the key to this problem is to start communicating about it as early as possible. Indeed, communication is the first and the most important thing (Change manager).*

The BPM project at Insur was carried out in six phases, namely: (1) preparation and confirmation of the BPM methodology; (2) identification of the processes; (3) determination of the process owners and process administrators; (4) business process modelling; (5) determination of KPIs and the way of monitoring KPIs; and (6) documentation of business processes. Figure 21 presents the BPM methodology at Insur.

Figure 21. Business Process Management methodology at Insur



After the confirmation of the BPM methodology, all the other phases were conducted consecutively, but in each business area independently of the other business areas (e.g. one business area was already in the modelling phase whereas another business area had just started with process identification). This pragmatic approach enabled the company to be more flexible and to adjust to the different pace of individual business areas. They started at the

department of business processes and organization to give an example to other business areas on how the process identification, modelling and documentation would be done (the lead-by-example principle). After that, they followed two criteria when choosing which business area was next: simplicity (i.e. first they took on simpler business areas with fewer processes, which were then used as success cases and for gaining the support of other business areas) and necessity (i.e. when a business area was on the threshold of change such as reorganization and it was necessary to determine which processes were going to be affected by the upcoming change). During all phases, the core project group members cooperated closely with members of the broader project group in different business areas.

6.4.3.1 Preparation for the project and establishing the Business Process Management methodology

To prepare for the BPM initiative (ever since being appointed as head of the BPM office), the project leader educated himself on the topic of BPM (e.g. what BPM is, which tools and methodologies exist, how to adopt BPM) by reading relevant papers and books, and attending BPM conferences (mainly from a pragmatic point of view of how other companies were approaching BPM). All this information was then put together into a cohesive whole, and presented to members of the core project group during several workshops in the first phase of the project.

The workshops were conducted in order to decide on the right BPM methodology at Insur. All employees included in the core project group took part in these workshops, which were headed by the project leader and project supervisor. At the workshops, the project leader familiarised others with BPM concepts and presented the methodology and tools for process modelling. All participants then discussed the possibilities and different possible approaches. They selected the appropriate tool for process modelling and developed their own BPM methodology, which was adjusted to suit the company and its environment. They also agreed on the definitions of general terms (e.g. operational process, business process, repository of business processes, process model, etc.) and precisely defined all process roles and responsibilities (e.g. process owner, process administrator, manager of the repository of business processes). As a result, a document containing the BPM methodology at Insur was prepared and confirmed by the core project group. At this stage, the project group also prepared a detailed project plan, defined the purpose of the project and agreed on the project goals and KPIs. The project leader and supervisor then communicated the project to the board of the company, ensured the support of the top management and provided a project sponsor (a management board member). The project was also included in the company's strategy as a large-scale project with a high priority.

6.4.3.2 Introductory meetings and process identification workshops

In each business area, the project started with an introductory meeting where the project leader first briefly explained the BPM methodology at Insur (i.e. the approach towards BPM, which phases they would go through and what would be their roles and responsibilities) and the purpose of the process identification workshop. Then, participants agreed on specific tasks

which would take place within the next year. Finally, the head of a certain business area (who was generally determined as a process owner or administrator) established which employees would participate in the project.

The process identification workshops consisted of identifying the processes in each business area, the precise and unambiguous naming of processes (verb + noun), and process classification (business or operational process). Process performers (employees involved in the process) described their work and together with the workshop leader (a process analyst from the BPM office) decided on the process name. The result of the workshop was a table of identified processes, which was sent to all workshop participants for their review and confirmation.

6.4.3.3 Determination of process owners and process administrators

In the third phase, a system of accountability for all processes was introduced. In each business area the BPM office made a request for the determination of process owners and administrators and clarified their roles and responsibilities. Special emphasis was put on the benefits these roles bring and the power to control and change the processes. Key employees were determined as the process owners and process administrators to monitor business processes at Insur, propose further improvements in the future and implement the proposed changes. In principle, the process owners and process administrators were determined according to the organizational structure (e.g. executive director of a certain business area, head of department, etc.). Such identification of process roles was considered the most appropriate since the organizational structure in the company is based on different types of insurances and corresponds well with the business processes. After their confirmation, the BPM office entered all the information into the repository of business processes. All process owners and process administrators were again informed about their process roles and responsibilities by the BPM office.

The roles and responsibilities of the process owners and process administrators are clearly determined and published as part of the BPM methodology at Insur. Process owners manage processes on a strategic level whereas process administrators manage processes on a tactical and operational level. Process administrators are responsible for preparing the process documentation in cooperation with process performers. Process owners are responsible for their business processes and oversee the activities and decisions of process administrators. Before the repository of business processes can be updated, process administrators and process owners have to confirm the process models and any changes to processes, as well as process KPIs. It is also their job to monitor the process KPIs and take appropriate actions.

6.4.3.4 Business process modelling

In the fourth phase, the processes were modelled at the process modelling workshops, led by an employee from the BPM office. Other workshop participants were process administrators and a few other experienced process performers. Workshops were conducted in smaller groups where participants answered guided questions regarding the details of a process posed

by the workshop leader and discussed the process in order to create the process model. Operational processes were modelled in more detail whereas business processes were presented as a sequence of individual operational processes.

At the process modelling workshop, the focus was only on the current state (as-is models) because they did not want to confuse the participants with 'what could be better' and 'how the process should be' questions. This was completely separated. However, it was quite common for participants to express their suggestions for improving the process during the workshop. The workshop leader took notes of the suggestions, but then directed them back to the modelling of the as-is processes. Otherwise, it was very likely that the participants would become distracted and worry too much about how it should be instead of how it is. If some deficiencies in the as-is process were found by the workshop leader, they were usually pointed out at the end of the workshop when the process model was complete.

At the workshop the processes were modelled on special paper, which enabled the workshop leader to simply change the process (by adding or deleting certain activities, etc.) in order to create the correct process model as the participants described it. When there were different opinions among the participants, the workshop leader took the role of a moderator and coordinated the workshop.

> *I tried to distinguish between process activities that are common for all, and those that are exceptions. The opinion of participants who said they are doing something differently was also taken into account by including the exceptions to the main process model in the form of notes or comments. Thus, we made a process model that is common for all participants and placed the exceptions under the comments, such that all participants contributed to the model and felt acknowledged. It was essential that at the end of the workshop the participants would look at the process model and agree that it represents the way they perform their work. That was our main goal (Head of the BPM office).*

After the workshop the process model on paper was transferred to an electronic version in MS Visio. The electronic version of the process model was sent by e-mail to all workshop participants for review and confirmation. In case the workshop participants had some comments and there was a need to correct the model, the BPM office made the necessary corrections and sent the revised model back to them for final confirmation. When the process model was completed and confirmed by process administrator, it was saved in the repository of business processes.

If necessary, the list of identified processes from the second phase of the project was changed at the process modelling workshops (e.g. renaming the processes, merging processes, eliminating or adding processes). After the processes had been modelled, such changes were very rare (only in case of reorganization when processes were moved to another business unit).

6.4.3.5 Determination of process Key Performance Indicators

The fifth phase focused on determining the KPIs and the way of monitoring KPIs. This was a challenging task for the process owners and administrators. In many cases, the process of determining KPIs was not that simple and they needed the help of the BPM office. Together, they discussed the best ways to measure processes and determine the process KPIs.

6.4.3.6 Process documentation

The sixth phase was mostly conducted simultaneously with the fifth phase. Process administrators (with the cooperation of selected process performers) were responsible for preparing a process document based on a pre-prepared template. The process document had to be confirmed by the process owner and checked by the BPM office for its compliance with the methodology before being published in the repository of business processes. In case process administrators needed help with documentation, they could turn to the BPM office and discuss with it how to proceed. The process document consists of all relevant information about the process, such as the purpose of the process, a definition of general terms used within the process, process roles and responsibilities relevant to the process (based on the RASCI model), process inputs, process outputs, a detailed description of the process and its activities, resources, the environment, process KPIs, reference documents (internal and external) and appendices.

Process roles and responsibilities based on the RASCI model are defined for each business process. RASCI is an abbreviation for **R**esponsible (the person who is ultimately responsible for delivering the task successfully – the person in the process carrying out the activity), **A**ccountable (the person ultimately answerable for the correct and thorough completion of the task and often the one who delegates the work to the performer, gives instructions, makes key decisions, monitors the implementation – the person who has ultimate accountability and authority), **S**upportive (the person or team of individuals who can play a supporting role in implementation and help complete the task), **C**onsulted (the person or team of individuals whose opinions are sought and with whom there is two-way communication), and **I**nformed (the person or groups of individuals who need to be notified about the results or actions taken, but do not need to be involved in the decision-making process, and with whom there is one-way communication).

6.4.3.7 Process improvement and innovation

At the end of the BPM project, another two phases can be added, which actually represent permanent tasks of the process owners and process administrators, as prescribed in the company's BPM methodology. The first is process analysis and identification of opportunities for improvement and the second is monitoring the process indicators. Process owners and process administrators are responsible for taking the initiative to look for opportunities for process improvements. Based on their initiative, a workshop is convened at which the workshop leader (BPM office), process administrators and key process performers work together. First, they identify, record and evaluate all issues relevant to the process (e.g.

process delays, bottlenecks). Second, they conduct a detailed analysis of the process and then discuss ideas on possible improvements.

> *Our opinion is that no process is so good that it cannot be even better. Therefore, processes need to be continuously measured and improved. In principle, this is a task of process owners and administrators; we are only their support and are always willing to help (Member of the BPM office).*

Suggestion for process improvements can come from process performers, process owners and administrators, and the BPM office. However, certain improvement suggestions might be good for individuals, but might not be optimal for the process as a whole. That is why process improvement workshops are necessary to discuss how the proposed change could affect other participants in the process. It is important to find a unanimous solution suitable to everyone.

Unanimous decisions are recorded and included in the final document called Problem analysis, together with a list of all processes affected by the proposed changes and all identified issues regarding the processes. A new process model (to-be model) is prepared and (if applicable) a member of the development team for IT prepares a functional specification for IT support. At the end of the workshop, all participants are given their own assignments, which they need to complete by a specific deadline.

In the end, process owners and process administrators are responsible for making decisions on the realisation of specific improvements. They are also responsible for establishing process KPIs, periodically monitoring the process indicators and keeping records on KPIs in the repository of business processes. Once a year, the BPM office (department for business processes) prepares a report on the process indicators and presents it to the management board and all process owners.

6.4.4 Outcomes of the Business Process Management initiative at Insur

The BPM initiative has met its goals and was completed successfully. By adopting the BPM methodology and establishing the repository of business processes, the company gained a good overview of its processes in different business areas. Moreover, it clearly defined responsibilities for the processes (process owner, process administrators). Informing and educating the process owners and process administrators about their roles was a big part of the project, which led to their better understanding of BPM and increased process awareness.

6.4.4.1 Transparency of process roles and responsibilities

One of the major benefits of adopting BPM was increased transparency in relation to responsibilities. Before the BPM initiative, process roles and responsibilities were not clearly determined. This caused an insufficient improvement of processes because it was unclear who had the authority to make process changes or who was responsible for the process. Finally, with the appointment of the process owners and process administrators the decision-making authority was clearly defined (e.g. who does what, who is responsible, who can change the

process, who has the authority to make decisions, etc.). This enables better management of processes and more efficient decision making (e.g. it is no longer necessary to go around the company and search for an employee who can take a certain decision; now they can immediately see who is responsible for a certain process from the repository of business processes).

> *There are many advantages, especially the standardisation of procedures in terms of who does what and where certain processes are performed. You see, Insur is quite a big company and even within the company we did not know who does what. This means that also the processes were not being improved because no one knew who was responsible and had the right to make process changes. Since we have the repository of business processes, things are finally clear and we can see exactly where and who does what, to whom we can turn if we want some information.... For each process, we know exactly who its owner and administrators are, i.e. the accountability for the process is defined (Member of the project team).*

The BPM office played an important role during the BPM project. It is an independent organizational unit and consists of three employees. The primary tasks of the BPM office are to establish BPM methods, model business processes and provide support to the process owners and process administrators with their process responsibilities (e.g. determining process KPIs, preparing process documentation, process analysis and improvement). Within the BPM office, one employee is assigned as the manager of the repository of business processes and is responsible for keeping it up to date. Process owners have to notify the BPM office about any changes to the processes as soon as the changes are confirmed so that the repository of business processes is always updated. In fact, updating the repository of business processes according to the changes made has become one of the most important tasks of the BPM office.

6.4.4.2 Standardised procedures and transparency of the process data

Another perceived benefit of the BPM adoption was standardising the procedures and publishing the rules regarding process management. The methodology for modelling, documenting, measuring and renovating the processes is prescribed and published in several connected documents in the company's internal application, which helps control that processes are managed as agreed.

Process models give a good overview of the processes (e.g. process boundaries, process performers, process triggers (what triggers the process), inputs, outputs, activities, and (if applicable) IT support that assists a particular activity) and enable employees to better understand their work and how it relates to the end-to-end processes in the company. In addition, process models and descriptions can be used in training new employees. They can simply review the process models and descriptions and obtain all the necessary information about the processes without having to ask other employees for help.

The repository of business processes also comes in handy when process or organizational changes are to be implemented. It gives a good overview of all processes that exist in a certain business area, making it easier to combine, separate or move processes, and to predict the extent of the proposed changes. Since each process has its own process owner and process administrator, it is also easy to see which employees need to be consulted regarding a specific change.

All key information on business processes (i.e. process models, process documentation, process KPIs, process roles and responsibilities, etc.) is now gathered in one place and is available to all process owners and administrators, which improves the transparency of the process data and facilitates the sharing of information between process owners, administrators and other employees. So far, access to the repository of business processes is limited to the BPM office, process owners and process administrators. However, in the future limited access will be made available to all employees, who will be able to access all the information about those processes relevant to them.

6.4.4.3 Process awareness

Awareness of the importance of business processes is at an extremely high level in the company. Processes are considered as assets that hold important value for the company.

> *It seems to me that we have made an enormous shift toward process thinking in the company – employees collaborate more, they know what the processes are, and they know they need to improve them. It seems to me that a remarkable shift was made (Member of the BPM office).*

At the end of the project, the BPM office conducted a short survey on process awareness among the process owners and administrators. The purpose was to find out how much they know the BPM methodology, what their opinion is about the BPM and any suggestions for the next steps (the necessary measures). The survey results showed that most of the process owners and process administrators understood the principles of BPM and were aware of its importance.

6.4.4.4 Employee satisfaction

Employees seem to be content with the BPM project and its outcomes. They already see the benefits of the BPM and are proud of their achievements in this area; however, they are aware the company has not reached its full potential yet. Whether the BPM adoption will really succeed largely depends on the process owners and administrators and how committed they will be to their new process roles and responsibilities.

> *I think that the BPM is not quite yet at the point where we want it to be. It is still somewhere at the middle level. However, we see it improving over time (Head of the BPM office).*

Thus, the plan for the future is to further enforce the BPM methodology and to teach the process owners and administrators about several process analysis methods and techniques that can be used when problems occur (e.g. route-cause analysis, fishbone diagram).

6.5 Discussion

In this section, I summarise the key findings of the case study and discuss the implications, limitations and future research.

The findings are twofold. First, several characteristics of the BPM initiative at Insur that were found to be important are identified. Some of these characteristics are more general and cannot be directly linked to the specific organizational culture. They may have a bigger role in certain types of organizational culture; however, based on the case study alone I cannot make this judgement. Due to the lack of references from the literature, I was unable to assign all the characteristics to organizational culture. While previous studies have established a link between organizational culture and BPM adoption success, and several studies addressed the relationship between organizational culture and TQM, these studies focused on which culture types are more or less appropriate for BPM (e.g. Hribar & Mendling) or which cultural characteristics are associated with different elements of TQM (e.g. Prajogo & McDermott, 2005). In contrast, this study focuses on the approach towards BPM adoption in a specific organizational culture setting.

Second, I focus on the specific measures that seemed to support the BPM adoption success in the studied case and link the elements of my findings to the organization's culture. Here, I try to avoid all hints of causality since the possibilities for generalisation on the basis of a single case study are quite weak. I identify which approach to BPM adoption might be appropriate in an organization with a Hierarchy-Market culture based on the findings from the case study and the characteristics of this culture type defined by Cameron and Quinn (2006).

6.5.1 Key characteristics of the Business Process Management initiative at Insur

Several characteristics that played a key role in the BPM initiative at Insur were identified. First, I present these characteristics in Table 17 and then discuss them in greater detail.

Table 17. Key characteristics of the Business Process Management initiative at Insur

Characteristic	Description	Connection to Hierarchy and/or Market culture
Good preparation for the project and clearly defining the BPM methodology	Establishing detailed rules on how the processes should be managed (BPM methodology)	Hierarchy culture (Cameron & Quinn, 2006)
Managing the BPM initiative	Approaching BPM adoption formally and systematically in a controlled and yet also pragmatic way	Hierarchy culture (Cameron & Quinn, 2006)
Establishment of a BPM office and introducing a system of accountability for all processes	Clearly defining process roles and responsibilities, determining control and accountability mechanisms	Hierarchy and Market culture (Cameron & Quinn, 2006)
Process measurement and continuous improvement	Determination of KPIs and continuous improvement of business processes	Hierarchy (Gambi et al., 2015; Prajogo & McDermott, 2005) and Market culture (Gambi et al., 2015; Zu et al., 2010)
Fostering employee collaboration	Constant communication and the use of participative methods (workshops, brainstorming)	Applies to all cultures, although it could also be linked to Market culture (Gambi et al., 2015)
Leadership support and attention to process	Gaining support by emphasising the importance of the BPM and the need for determining KPIs, monitoring and improving the processes	Applies to all cultures
Increasing process awareness	Making employees understand that adopting the BPM is necessary and how they will benefit from it	Market culture (Cameron & Quinn, 2006)

These characteristics are derived based on the case study analysis. The question of which factors had an important impact on the success of the BPM initiative was one of the five key issues I was interested in when conducting the interviews with employees who had participated in the BPM initiative (see section 6.3.4 for more details). The most common answers were then grouped together into seven key characteristics of the BPM initiative at Insur presented in Table 17. Besides the characteristics and their short descriptions, I suggest which characteristics could be linked to the Hierarchy and/or Market culture based on findings of previous studies. As mentioned, some of these characteristics are quite general and I cannot claim they are only valid for organizations with a Hierarchy-Market culture or valid for all organizations with a Hierarchy-Market culture. In fact, it may well be that the same factors would also contribute to success in different organizational cultures.

6.5.1.1 Good preparation for the project and clearly defining the Business Process Management methodology

The BPM initiative at Insur was well planned. Brainstorming techniques were used at workshops, which were set up in order to develop and decide on an appropriate BPM

methodology for the company. Employees from the core project group worked closely together with the project leader and project supervisor. They decided on the common terminology and clearly defined all process roles and responsibilities. The confirmed BPM methodology was then used as a basis for determining the project plan together with the project's purpose, goals and KPIs.

This characteristic is more general and can easily be attributed to any type of organizational culture. In the light of the Hierarchy and Market cultures, it could be argued that establishing detailed rules on how the processes should be managed by clearly defining and adopting their own BPM methodology is in fact in line with the Hierarchy culture, where following the rules is important (Cameron & Quinn, 2006).

6.5.1.2 Managing the Business Process Management initiative

My data analysis shows that Insur approached its BPM adoption in a controlled (strictly according to the established BPM methodology) and yet also pragmatic way (e.g. conducting the project phases in each business area independently of the other business areas, adjusting to the different pace of individual business areas, and prioritising processes). The BPM initiative was led formally and systematically, according to the guidelines for project management. For example, the company established the BPM methodology which includes specific rules and procedures regarding the BPM. During the BPM initiative, the project leader had to report on the project's progress to the project supervisor and project office every three months and, at the end of the project, a final report on achieving the project objectives had to be made. This is clearly in line with the characteristics of a Hierarchy culture, which emphasises a formal work environment, control, coordination, and where procedures govern people's activities (Cameron & Quinn, 2006).

At Insur, project management as well as change management are at a high level, which enables the systematic implementation of activities leading to the pursued objective. Project and change management were also frequently identified in the literature as one of the success factors for BPM (Ariyachandra & Frolick, 2008; Bandara et al., 2009; Ohtonen & Lainema, 2011; Ravesteyn, 2007; Trkman, 2010); however, not in connection with the organizational culture.

6.5.1.3 Establishment of the Business Process Management office and introducing a system of accountability for all processes

The BPM office played a key role in the BPM initiative at Insur. It was crucial that the BPM office was established at the start of the BPM initiative and was included in planning the BPM initiative, educating other employees about BPM and establishing the BPM methodology. The main responsibilities of the BPM office are modelling business processes and providing support to the process owners and process administrators. Dedicated employees at the BPM office are also responsible for the proper implementation of the BPM methodology, maintaining the repository of business processes and the overall success of the BPM initiative.

The transparency of process roles and responsibilities as well as clearly determining the control and accountability mechanisms early on in the project are important characteristics of Insur's BPM initiative, which are in line with a Hierarchy culture. It was very beneficial that the process owners and process administrators were determined early in the project, such that the decision-making authority was clearly defined. In a Hierarchy culture this is valued as one of the important keys to success (Cameron & Quinn, 2006).

> *Determining the process owners and administrators was a key point in our BPM initiative. We wanted to determine process ownership early on in the project because it was a prerequisite for successful implementation of all remaining phases of the project. It would not work without this. If nothing else, you need to know who the process owner and administrators are so that you can invite them to participate in the process modelling workshop (Project supervisor).*

6.5.1.4 Process measurement and continuous process improvement

One of the important steps in Insur's BPM methodology is the establishment of process KPIs, which enables the periodic monitoring of processes. Insur's approach is based on the continuous improvement of processes, which is the permanent responsibility of the process owners and administrators in cooperation with the BPM office. Techniques (such as brainstorming) that encourage employee participation and involvement, and support continuous improvement, were widely used during Insur's BPM initiative.

In the literature, the use of process measurement was found to be positively associated with a Hierarchy (Gambi et al., 2015; Prajogo & McDermott, 2005) and a Market culture (Gambi et al., 2015; Zu et al., 2010). Market culture was also found to be a strong predictor of the use of continuous improvement techniques (Gambi et al., 2015).

6.5.1.5 Fostering employee collaboration

Employee collaboration at Insur was encouraged through constant communication and the use of participative methods such as workshops and brainstorming. Communication played a key role in the success of the BPM project. All employees were informed about the project and the newly accepted BPM methodology via online internal notification. In addition, at the beginning of the project the company's CEO announced the importance of the project to the company in several messages so that the process awareness of the employees would increase. After that, employees were only informed if necessary, when they were given a specific task that required their cooperation.

The BPM office communicated directly with the process owners and process administrators, who then communicated further with other employees (process performers). The main means of communication were meetings, workshops and e-mail (exchange of information, confirmation of process models and documents, etc.). Key issues regarding the project were also published in the internal company newsletter.

A lot of time and effort was put into persuading the process owners about the benefits of process ownership and the great decision-making power that stems from it. There was constant communication between the BPM office and process owners and process administrators throughout the project and continuing communication after the project was officially completed. Each business area also has weekly meetings where they can discuss the processes (e.g. if any changes are necessary).

> *I think the rule here is that you cannot communicate too much. Too much communication does not exist, only not enough communication. We should probably communicate even more; especially to encourage the process owners to want this power of process management (Member of the project group).*

In addition to communication, employees were encouraged to participate in the BPM initiative by attending different workshops. In fact, this was the most commonly used method in the BPM initiative at Insur. Workshops were used as a method for process identification, process modelling and process analysis as well as for the process owners and process administrators to get acquainted with their new roles and responsibilities.

Workshops are a popular method because they foster cooperation and enable personal contact with employees who normally do not work in the same office and do not personally know each other, even though they are participating in the same process. As the number of participants at each workshop is limited to a maximum of 5–7 employees, managing the workshops is quite easy. All participants have the opportunity to contribute and express their opinion. To achieve the best results, all participants should be at the same or similar hierarchy level in the company to ensure the atmosphere at the workshops is relaxed and open.

It is essential for employees to understand the purpose and goals of the workshop. For this, the workshop leader has to clearly explain what exactly the purpose of the workshop is and what it is they want to achieve at the workshop. The explanation should be brief and on point (only relevant to the respective workshop) so that participants focus on the right things and are not distracted by other project details.

> *At the beginning of the workshop you need to explain the purpose, so that participants know why they will sit there for 3 or 4 hours. And if you explain it well enough so that they understand, then there shouldn't be any problems. When there are problems, it means that you did not explain it well enough for the participants to understand (Member of the BPM office).*

Another important issue when conducting workshops is to listen to all participants and show them that their opinion matters and that their input is appreciated and taken into account. It is important that the project leader listens to the workshop participants and takes notes of their suggestions so they feel acknowledged. Workshop participants are motivated to cooperate when they feel their opinion matters and they will be able to contribute to changing and improving the processes.

Employee collaboration is crucial in any project, regardless of the organizational culture. The importance of communication is recognised as a key success factor for BPM in many different studies (e.g. Ariyachandra & Frolick, 2008; Bandara et al., 2009; Ohtonen & Lainema, 2011; Ravesteyn & Batenburg, 2010; Thompson et al., 2009; Trkman, 2010) and the use of workshops is also found to be appropriate by several authors (e.g. Dumas et al., 2013; Manfreda, Buh & Indihar Štemberger, 2015). While these studies recognise the importance of communication and the use of workshops, they do not connect their findings to organizational culture. Thus, I assume that fostering employee collaboration is a general factor that applies to all cultures. However, findings by Gambi et al. (2015) suggesting that the use of participative methods, such as brainstorming and workshops, is positively associated with Market culture could also link this characteristic to Market culture.

6.5.1.6 Leadership support and attention to the processes

Another key factor in successful completion of the project is leadership support and attention to the processes. Leadership support for the BPM project was strong from the outset and throughout the whole project. In fact, the initiative for the BPM project came from a project supervisor. The active involvement of the project supervisor who is also a member of top management was important for the project's success. Being a member of top management and participating at all top-level strategic company meetings enabled the project supervisor to gain the support of others by emphasising the importance of the BPM and especially the need for determining KPIs, monitoring and improving the processes. This personal commitment of the project supervisor could be recognised as the driving force for the project as she was working in the background and »opening doors« for other project participants. At the beginning of the BPM initiative, the project leader and supervisor communicated the project to the board of the company and provided a project sponsor (a management board member), which additionally ensured top management's support. The project was also included in the company's strategy as a large-scale project with a high priority.

Leadership support and involvement is again a general success factor, recognised in many studies (e.g. Ohtonen & Lainema, 2011; Ravesteyn & Batenburg, 2010; Ravesteyn, 2007; Trkman, 2010), independently of the organizational culture.

6.5.1.7 Increasing process awareness

Besides leadership support and constant communication before, during and after the project, a key issue for the BPM project at Insur was to increase process awareness and convince employees that adopting the BPM methodology and accepting their new process roles (i.e. process ownership and administration) would bring major benefits to them and the company as a whole. I find that, even for a company with a Hierarchy-Market organizational culture which is inclined to follow the rules and achieve results, it is not good enough to simply give orders to employees. Sure, they would complete the task, but with resistance or at least a bad mood. For employees to really cooperate, the project leader (or workshop leader) should clearly explain to them the purpose of the project (or specific workshop) as well as how they would benefit from it (especially emphasising the ability to achieve better results).

Most frequently we are facing the questions of whether and how this [process modelling] will benefit employees in their work. If we manage to explain that we can solve a problem by modelling and coordinating the process with other employees who participate in the process in different business units, then it is easier. But as long as a person does not understand why he or she would do this, then often they are reluctant to participate (Member of the BPM office).

The case study analysis shows that making employees understand that adopting BPM is necessary and how they will benefit from it is a challenging task. However, it has proven to be worth the effort. When employees understood why the BPM is important and why they needed to cooperate in the project, it was much easier to work with them and get the job done without resistance.

Communication truly is 90% of the work. If you tell the process owners and administrators to determine the process KPIs by September, it will not work. However, if you can 'sell' this to them by explaining why and how will it benefit them (e.g. 'Determine the process KPIs so that you will be able to better manage your process and achieve better results') and they 'buy' into it, then you will be successful (Head of the BPM office).

Increasing process awareness in the sense of convincing employees to adopt the BPM methodology and their new process roles because it will enable them to achieve better results can be linked to a Market culture. Market culture organizations are results-oriented and focus on creating a competitive advantage and customer satisfaction (Cameron & Quinn, 2006). Employees can therefore better relate to the process ownership when they understand that at the end of each process there is a customer and that, by establishing the process ownership, it is clear who has the power to improve the processes and can consequently achieve better results. A key thing is therefore to make employees understand they can achieve better results by managing the processes.

I think some more time will have to pass before the process owners will truly internalise their process role. Somehow it was never in our organizational culture that they would have to deal with the processes. All that was important to them were results. That is, it was only important that the results are positive, but not how the processes are performed. … Now we have rules for BPM written and we must adhere to them (Member of the project group).

6.5.2 Lessons learned: Approach towards Business Process Management adoption under a Hierarchy-Market culture

When analysing the case study, I proceeded from the characteristics of a Hierarchy-Market culture defined by Cameron and Quinn (2006) and tried to connect these characteristics to specific measures that seemed to support the BPM adoption success in the studied case. I was specifically looking for a match between the organization's culture characteristics and the

measures taken during the BPM initiative. At this point, I would like to clarify that it was not my intention to make any generalised assumptions based on this case study, but to provide an insightful illustration of the elements that contributed to the success of the BPM adoption in the studied organization with a Hierarchy-Market culture. To be able to give valid and generalisable conclusions regarding the appropriate approach to BPM adoption under a specific organizational culture, future research on this topic is necessary. Future research (similar case studies in different cultural contexts as well as empirical research) could show whether Insur's approach would also work in other organizations with a Hierarchy-Market culture and also whether this approach would not work as well in other types of organizational culture.

Insur's orientation towards achieving results and reaching its objectives is strong. Employees are also rewarded in relation to achieving objectives (the variable part of their salary is tied to the realisation of goals), which is in line with the characteristics of a Market culture. At the same time, the company has established detailed rules on how the processes should be managed by adopting its own BPM methodology, and clearly defined process roles and responsibilities (e.g. who communicates with whom, who is responsible for what, who can make certain decisions, etc.). This is consistent with the characteristics of a Hierarchy culture.

Cameron and Quinn (2006) characterise Hierarchy-culture organizations as having a lot of standardised rules and procedures that employees need to follow (e.g. documenting process changes, updating the repository of business processes, etc.). Clearly defining the BPM methodology, establishing the BPM office and determining control and accountability mechanisms at Insur was therefore fitting with the Hierarchy culture characteristics.

Since Insur has a combination of a Hierarchy and Market culture, the right approach in this case seemed to be to clearly determine assignments and responsibilities for each process role, while simultaneously emphasising that BPM is something they need, and explaining how it would benefit them, especially from the aspect they will have the power to control and change their processes, and be able to achieve better results. The emphasis on achieving results is in line with the Market culture, whereas determining the rules and clearly defining the decision-making authority are characteristics of the Hierarchy culture. Based on the data analysis and the characteristics of the Hierarchy and Market cultures as defined by Cameron and Quinn (2006), I find that the approach to BPM adoption at Insur appeared to be in line with the Hierarchy-Market culture, which is the dominant organizational culture in the company.

Table 18 summarises the main findings and presents the fit between the cultural characteristics and the measures taken during the company's BPM initiative. The characteristics of the Hierarchy and Market cultures as defined by Cameron and Quinn (2006) are mapped together with specific measures that seemed to contribute to the success of the BPM adoption at Insur. In the first column, the Hierarchy and Market culture characteristics are presented and in the second column the measures that can be linked to the characteristics

of a Hierarchy culture and the measures that match better with Market culture characteristics are identified.

Table 18. Approach towards Business Process Management adoption under a Hierarchy-Market culture

Hierarchy culture characteristics	**Measures in line with Hierarchy culture characteristics**
Formal work environment with emphasis on structure, control, coordination and efficiency	- Approaching BPM adoption systematically in a formal, organized and controlled way, according to the guidelines for project management
Procedures govern people's activities, standardised rules and procedures are valued as keys to success	- Establishing standardised rules and procedures regarding BPM (BPM methodology, pre-prepared templates for process documentation)
Clear lines of decision-making authority, control and accountability mechanisms are highly valued	- Clearly defining the decision-making authority early in the project (determining process owners and process administrators) - Establishing a system of accountability for all processes - Precisely defining all process roles and responsibilities
Maintaining a smooth-running organization is important	- Establishing a BPM office to support the process owners and administrators - Keeping a good overview of the project at all times
Stability, predictability and efficiency characterise the long-term concerns of an organization	- Maintaining the repository of business processes - Controlling whether the processes are managed according to the BPM methodology
Market culture characteristics	**Measures in line with Market culture characteristics**
Clear purpose and an aggressive strategy are assumed to lead to productivity and profitability	- Clearly defining the purpose of the BPM initiative - Including the BPM project in the company's strategy - Clearly explaining to employees the purpose of the BPM initiative and how they will benefit from it
The main values dominating Market-type organizations are profitability, competitiveness, productivity, and goal achievement	- Emphasising the power to control and change the processes - Making employees understand they can achieve better results by managing the processes
The major task of management is to drive the organization toward productivity, results and profits	- Leading by example and motivating employees by showing them results of other business areas
A results-oriented workplace focused on goals and creating a competitive advantage. Emphasis is on external positioning and control.	- Controlling whether the objectives have been achieved - Rewarding employees according to the achieved objectives

Here, I would again like to point out that while the measures identified in Table 18 might work well in the specific case due to their assumed cultural fit (without further research that could confirm these findings this remains just an assumption), it is important to note there were also other factors that played an important role in the success of the company's BPM initiative. Some of these factors are more general and cannot be assigned to the organizational culture.

6.5.3 Propositions[10]

The case study is based on the proposition that the approach to BPM adoption needs to fit with the culture of the organization and that culture drives the appropriate initial approach towards BPM adoption (Armistead & Machin, 1997). Since organizational culture is difficult to change (Lee & Dale, 1998; Alibabaei et al., 2010) and also cannot be changed within a short period of time (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004), the approach to BPM adoption should be adjusted to suit the existing organizational culture.

Based on the case study analysis, several propositions are given on how BPM adoption can be approached in an organization with a dominant Hierarchy-Market culture. These propositions can be directly linked to the characteristics of a Hierarchy and Market culture as defined by Cameron and Quinn (2006).

Proposition 1: BPM adoption in an organization with a Hierarchy-Market culture is more successful when the BPM initiative is led in a formal, organized and controlled way.

Proposition 2: BPM adoption in an organization with a Hierarchy-Market culture is more successful when standardised rules and procedures regarding BPM are established.

Proposition 3: BPM adoption in an organization with a Hierarchy-Market culture is more successful when the decision-making authority is clearly defined early on in the project.

Proposition 4: BPM adoption in an organization with a Hierarchy-Market culture is more successful when process roles and responsibilities are precisely defined and assigned to appropriate employees.

Proposition 5: BPM adoption in an organization with a Hierarchy-Market culture is more successful when a system of accountability for all processes is established.

Proposition 6: BPM adoption in an organization with a Hierarchy-Market culture is more successful when a BPM office is established to support the process owners and administrators.

Proposition 7: BPM adoption in an organization with a Hierarchy-Market culture is more successful when control over the implementation of changes is established.

Proposition 8: BPM adoption in an organization with a Hierarchy-Market culture is more successful when the BPM initiative is included in the organization's strategy.

[10] Section *6.5.3 Propositions* was added for the purpose of the dissertation and is not part of the original paper.

Proposition 9: BPM adoption in an organization with a Hierarchy-Market culture is more successful when it is clearly explained to employees how they would benefit from the BPM adoption, especially in terms of having the power to control and improve processes to achieve better results.

Proposition 10: BPM adoption in an organization with a Hierarchy-Market culture is more successful when employees are rewarded according to objectives achieved.

On the whole, this set of propositions holds implications for how organizations with a Hierarchy-Market culture should approach the adoption of BPM. Future research should address these propositions and show whether the findings of this research also apply to other organizations with a Hierarchy-Market culture. So far, the propositions are based on the findings of a single case study, thus the possibilities for generalising these findings are quite weak. To be able to give valid and generalisable conclusions regarding the appropriate approach to BPM adoption under a Hierarchy-Market culture, further research on this topic is required. Future research should include similar case studies in organizations that possess a combination of Hierarchy and Market culture.

6.5.4 Implications, limitations and future research

Previous studies have established the importance of organizational culture for the success of BPM adoption and found that certain organizational culture types seem to be more favourable and others less favourable to adopting BPM. In this chapter, I go a step further and present a case study of BPM adoption in an organization with a Hierarchy-Market culture and find which specific measures were successfully used in that specific setting. This study provides an insightful illustration of the elements that contributed to BPM adoption in an organization characterised as having a Hierarchy-Market culture and that appears to be on a good path to full BPM adoption. This work extends the body of knowledge regarding cultural issues in BPM, and thereby contributes to more successful BPM adoption.

However, the important limitation of this research is that it is based on a single case study, limiting the ability to make an empirical generalisation. I therefore propose additional research in this area. More case studies and empirical investigations are called for to confirm and expand the findings in this chapter. Further, it will be important to investigate which specific measures are likely to support BPM adoption success under different organizational cultures, not only a Hierarchy-Market culture.

6.6 Conclusion

Organizations should be aware of their dominant organizational culture type and its characteristics and choose the appropriate approach towards BPM adoption. I believe that organizations can better prepare for their BPM initiative by including an organizational culture analysis in the preparatory phase. They can thereby adapt the approach to BPM adoption to fit with their organizational culture.

In this chapter, the approach towards BPM adoption under a Hierarchy-Market culture is analysed. The focus is on investigating which particular measures are likely to support the successful adoption of BPM in such a cultural setting. The findings show that a formal, well-organized and controlled approach worked well in the studied case. Clearly determining assignments and responsibilities for each process role, defining the decision-making authority early on in the project, as well as an emphasis on the benefits of BPM (especially the power to control and change their processes, and the ability to achieve better results) are in line with the characteristics of a Hierarchy-Market culture and seem to have contributed to the successful BPM adoption in the studied organization. This might be due to the assumed fit between cultural characteristics and measures taken during the BPM initiative, although further research is needed to be able to confirm and expand these findings.

7 GENERAL DISCUSSION

7.1 Summary of the main research findings

Throughout the dissertation, all the research goals were successfully achieved. In chapter 2, a clear definition of the key concepts, namely BPM adoption, BPM adoption success, and organizational culture is provided. Based on a literature review and close examination of several BPM lifecycle models, the BPM adoption framework is presented and the actions of the BPM adoption framework are identified. The success of BPM adoption is operationalised in such a way that it can be quantitatively assessed. The Business Process Orientation Maturity model (BPO) developed by McCormack and Johnson (2001) and the Process Performance Index (PPI) developed by the Rummler-Brache Group (2004) are used as proxies to measure the success of BPM adoption. Organizational culture is defined as "a pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 1990).

Chapter 3 provides a structured literature review investigating the relationship between BPM adoption and different organizational culture types. The study reviews the main research findings on BPM adoption in connection to organizational culture, specifically with regard to the different types of organizational culture defined by Cameron and Quinn (2006). The findings from the literature review show there are only a handful of papers that discuss the relationship between different organizational culture types and BPM adoption. These papers suggest there are significant differences in how different culture types impact BPM adoption. However, there are some differences between the studies regarding what kind of impact each organizational culture type has. There is a gap in the empirical literature directly examining the correlation between culture types and process performance. Based on the structured literature review, a framework for the relationship between organizational culture, the approach to BPM adoption, and the success of BPM adoption is proposed, which then serves as a starting point for further empirical research on this topic.

Chapter 4 presents empirical research that examines the association between the four cultural types (Clan, Adhocracy, Market and Hierarchy) and the success of BPM adoption (BPO and PPI). A survey design is used to investigate the correlation of organizational culture and the success of BPM adoption. The survey was conducted among top managers and (where applicable) process owners in organizations with more than 50 employees in Slovenia and Croatia. Based on data gathered from the survey analysis, it is identified how the success of BPM adoption varies according to different organizational cultures, and which type of organizational culture best supports BPM adoption. The results of the study indicate that organizational culture has a significant effect on BPM adoption success. It is also identified which organizational culture types are more favourable and which less for BPM adoption. The results reveal that the highest level of BPM adoption success is achieved in organizations

with a Clan culture, whereas organizations achieving the lowest level of BPM adoption success appear to have a Hierarchy culture. The findings show that organizations with a dominant Clan culture appear to be more successful adopting BPM than organizations with a dominant Hierarchy culture. In addition, a significantly negative correlation is found between Hierarchy culture and BPM adoption success. Thus, Clan culture is identified as being more favourable and Hierarchy culture as less favourable for BPM adoption.

After identifying the Hierarchy culture as less favourable for BPM adoption in the survey analysis, two case studies researching approaches towards BPM adoption under the Hierarchy and Hierarchy-Market cultures were conducted. The case studies are presented in Chapter 5 and Chapter 6. The case studies are based on the proposition that the approach to BPM adoption needs to fit the culture of the organization and that culture drives the appropriate initial approach to BPM adoption (Armistead & Machin, 1997). Since organizational culture is difficult to change (Lee & Dale, 1998; Alibabaei et al., 2010) and also cannot be changed within a short time period (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004), the approach to BPM adoption should be adjusted to suit the existing organizational culture. Therefore, the aim of the case studies is to find out how BPM adoption can be approached in an organization depending on its existing organizational culture. The data collection methods included in-depth interviews, a review of case documentation about the BPM initiative, and an online survey on organizational culture and BPM adoption success. The studies identify which specific measures seem to support BPM adoption success in the studied organizations with a Hierarchy culture and a Hierarchy-Market culture. The findings show that a formal, well-organized and controlled approach worked well in the studied cases. It is found that particular emphasis should be put on providing leadership support and active involvement, proper planning and communication, and an orderly way of managing the BPM initiative. Authority regarding the decision making should also be clearly defined.

Table 19 presents a summary of the research findings of each chapter, how they were obtained, and the main contributions.

Table 19. Summary of the main research findings

Chapter (Title) and research questions	**Study type (methodology/design/analysis)**	**Main findings**	**Contributions**
Chapter 2: Key concepts	Literature review, examination of several BPM lifecycle models	Development of a BPM adoption framework. Identification of the actions of the BPM adoption framework.	Clearly defining the concepts *BPM adoption* and *BPM adoption success.* Providing a better understanding of what constitutes BPM adoption and how BPM adoption success can be measured.
Chapter 3: Investigating the relationship between Business Process Management adoption and different organizational culture types: a literature review *RQ1: What is the current state of research on BPM adoption in connection to organizational culture?*	Structured literature review, content analysis and coding	There is a gap in the empirical literature directly examining the correlation between organizational culture types and process performance. Different organizational cultures appear to have a different impact on BPM adoption. Development of a framework that shows the relationship between organizational culture, BPM adoption success and the approach to BPM adoption.	Providing an overview of the main research findings on BPM adoption in connection to different organizational culture types. Improving understanding of the relationship between organizational culture, the approach to BPM adoption and BPM adoption success. A conceptual framework that can provide a starting point to structure future research on the topic.
Chapter 4: Quantitative study of the connection between the organizational culture and the success of Business Process Management adoption *RQ2: How does the success of BPM adoption vary between different types of organizational culture?*	Empirical research based on a survey design – firm-level data of 115 organizations in Slovenia and 86 organizations in Croatia; group comparison, regression analysis, correlations analysis	Organizations with different organizational culture types have varying success with BPM adoption. Clan culture is identified as the most favourable and Hierarchy culture as the least favourable for BPM adoption. A significantly negative correlation is found between Hierarchy culture and BPM adoption success. Organizational culture has a significant impact on BPM adoption success.	Empirical examination of the connection between different organizational cultures and BPM adoption success. Identification of which organizational culture types are more favourable and which less for BPM adoption. Finding a significant connection between BPM adoption success and organizational culture.

(table continues)

(continued)

Chapter (Title) and research questions	Study type (methodology/design/analysis)	Main findings	Contributions
Chapter 5: Approach towards Business Process Management adoption under Hierarchy culture: a case study of a ministry Chapter 6: Approach towards Business Process Management adoption under a Hierarchy-Market culture: a case study of an insurance company *RQ3: Which approach towards BPM adoption might be appropriate in organizations with a specific type of organizational culture or combination of organizational culture types?*	Mixed method approach – a survey-based research design for evaluating organizational culture and for measuring the success of BPM adoption, and exploratory case studies for researching the approach towards BPM adoption Qualitative and quantitative data collection, in-depth interviews, review of case documentation, online survey on organizational culture and BPM adoption success; data coding, survey analysis	A formal, well-organized and controlled approach is in line with the characteristics of the Hierarchy and Hierarchy-Market cultures and seems to have worked well in the studied cases. Clearly defining the decision-making authority and emphasis on the benefits of BPM also seemed to contribute to the successful BPM adoption in the studied organizations.	Identification of how BPM adoption can be approached (which specific measures seem to support BPM adoption success) in organizations with a Hierarchy culture and Hierarchy-Market culture.

7.2 Theoretical contributions and practical implications

The dissertation holds major implications for research and practice. First, it provides a clear definition of the concepts "BPM adoption" and "success of BPM adoption", which was missing in the existing literature. Therefore, it improves the understanding of what constitutes BPM adoption and how BPM adoption success can be measured. Second, a structured literature review on BPM adoption in connection to organizational culture, specifically with regard to the different types of organizational culture defined by Cameron and Quinn (2006), is provided. This is the first literature review to focus on different types of organizational culture and their relationship with BPM adoption, unlike previous literature reviews dealing with the topic of culture in BPM (i.e. literature reviews by vom Brocke & Sinnl, 2011, and Grau & Moormann, 2014). Further, a conceptual framework of the relationship between BPM adoption and different organizational culture types is proposed that also incorporates the approach to BPM adoption, which extends the existing research. The framework can be used as a basis for future research on BPM adoption in connection to different organizational culture types. In addition, it provides a better understanding of the relationship between organizational culture, approaches towards BPM adoption and BPM adoption success.

Third, the dissertation addresses the gap in the empirical literature examining the association between organizational culture and the success of BPM adoption. A quantitative research is conducted to investigate how the success of BPM adoption varies between different types of organizational culture. While previous studies point to the relevance of organizational culture for BPM adoption success, hardly any research has studied the impact of organizational culture on BPM adoption success in a quantitative way. Although there are some empirical studies that investigate the relationship between organizational culture and TQM (e.g. Prajogo & McDermott, 2005, 2011; Yong & Pheng, 2008), which is closely connected to BPM, they focus on quality practices that cannot be equated with BPM adoption success, which is perceived in a much broader sense. Therefore, the findings of the dissertation address an important research gap as they show that organizational culture influences the success of BPM initiatives and the resulting process performance. Significant differences between BPM adoption success across different organizational culture types were found. The main research hypothesis that organizations with different organizational culture types have varying success with BPM adoption is therefore supported, along with all the other subordinate hypotheses. In addition, it is identified which organizational culture types are more favourable and which less for BPM adoption. A significant connection between BPM adoption success and organizational culture is found, thus contributing to cultural studies in IS and informing research on BPM.

While previous studies highlight the importance of a fit between BPM and organizational culture (e.g. vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011), they do not consider the approach to BPM adoption. Instead, previous studies refer to the need to change the organizational culture in order to fit BPM initiatives (vom Brocke & Sinnl, 2011; Tumbas & Schmiedel, 2013), disregarding the fact that organizational culture cannot be

changed within a short period of time (Grugulis & Wilkinson, 2002) and changing it is very difficult (Lee & Dale, 1998). This research takes a different approach. Instead of trying to change the organizational culture to fit BPM initiatives, it proposes that the approach to BPM needs to be adapted to suit the existing organizational culture and goals of the organization. An important question the dissertation addresses is how to approach BPM adoption in an organization depending on its organizational culture. The dissertation identifies how BPM adoption can be approached (which specific measures seem to support BPM adoption success) in organizations with a specific type of organizational culture or combination of organizational culture types, namely a Hierarchy culture and Hierarchy-Market culture.

The dissertation has also important implications for practice. It provides a better understanding of the relationship between organizational culture and BPM adoption success. The findings can help organizations to prepare their BPM initiative by including a culture analysis in the preparatory phase of their BPM adoption. This is especially important for organizations with organizational culture types that are less supportive of BPM adoption (e.g. the Hierarchy culture). Since organizational culture has a significant role in the success of BPM adoption, organizations should be aware of their dominant culture type and its characteristics, and choose the appropriate approach to BPM adoption. The question of how to approach BPM adoption in an organization depending on its organizational culture is addressed in two case studies. The findings show which particular measures have successfully been used in the specific settings of the two case studies, and which elements contributed to their BPM adoption success. The dissertation extends the body of knowledge regarding cultural issues in BPM, and thereby contributes to more successful BPM adoption.

7.3 Limitations

Although the dissertation provides a significant contribution for research and practice, it also has some important limitations that need to be addressed. The limitations of the individual chapters (papers) are stated at the end of the sections; however, the general limitations can be summarised in the following three points:

- The first limitation relates to the choice of a model for assessing the organizational culture. In the dissertation, the focus is specifically on the types of organizational culture defined by Cameron and Quinn (2006) or the CVF. However, many different methodologies for measuring organizational culture have been developed over the last few decades, and numerous instruments are available for evaluating the organizational culture. The OCAI was selected based on the context of the dissertation research, the aim of the study, and the available resources. In addition, the OCAI has been used in many previous studies and is a validated research method to examine organizational culture. Choosing another model for assessing the organizational culture might give different results as the culture types under different models may include other characteristics.
- The second limitation refers to measurement of the BPM adoption success. The operationalisation of BPM adoption success in the dissertation is focused on the level of

BPO and PPI, which are used as proxies for measuring the success of BPM adoption. BPO and PPI were chosen based on several criteria, such as validity, assessment duration and availability. Both of these measures have been used in previous studies and are validated research instruments that produce quantitative data, which can be easily statistically analysed and compared. Future work could investigate other aspects of BPM adoption success, for instance, improvement in terms of quality, time and cost.

- The third limitation refers to the generalisability of findings. The research on the appropriate approach towards BPM adoption under specific organizational cultures is based on two case studies, limiting the ability to make an empirical generalisation. Therefore, additional research in this area with more case studies and empirical investigations is proposed in order to confirm and expand the findings made in the dissertation. It will be important to investigate which specific measures are likely to support BPM adoption success under different organizational cultures, not only the Hierarchy and Hierarchy-Market cultures. Future research could show whether a specific approach would work just as well in other organizations with a similar culture and also whether this approach would not work as well under other types of organizational culture.

7.4 Future research

The findings in the dissertation contribute to a better understanding of the relationship between BPM adoption and different organizational culture types. The dissertation provides a framework that connects organizational culture with BPM adoption success through the approach to BPM adoption. The framework can be used as a basis for future research on BPM adoption in connection to different organizational culture types.

The dissertation explores how BPM adoption success is associated with organizational culture or different types of organizational culture. In particular, how the success of BPM adoption varies between different types of organizational culture (Clan, Adhocracy, Market and Hierarchy), and which approach to BPM adoption is appropriate considering the existing organizational culture in the organization.

The operationalisation of BPM adoption success in the dissertation is concentrated on the level of BPO and PPI, which are used as proxies for measuring the success of BPM adoption. Future work could investigate other aspects of BPM adoption success, for instance, improvement in terms of quality, time and cost. Moreover, items could be developed to more directly measure the degree of BPM adoption.

The dissertation focuses mainly on the dominant culture types and their impact on BPM adoption. However, it would be also important to study the role of cultural profiles, especially since organizations typically have some score for all four types of culture (Aier, 2012). Future research should include gathering more data, which would allow for organizations to be grouped together and compared based on their cultural profiles, not only on their dominant

culture types. In addition, future research should address the fit between specific BPM practices and organizational culture profiles.

The dissertation exclusively investigates organizational culture. However, other cultural factors might also play a role in BPM adoption. An important objective of future research would be to study the impact of organizational culture on BPM adoption success in different countries, thus including national culture in the research. To my knowledge, no research to date has studied BPM adoption in different countries.

Additional research is also necessary regarding the appropriate approaches towards BPM adoption under different organizational cultures. At the end of each case study, several propositions were stated, and these should be addressed in future research. More case studies and empirical investigations are needed to confirm and expand the findings of the case studies in the dissertation. Further, it will be important to investigate which specific measures are likely to support BPM adoption success under different organizational cultures, not only the Hierarchy and Hierarchy-Market cultures. Since the dissertation addresses only the approach to adopting BPM in organizations with less favourable culture for adopting BPM, it would be interesting to investigate which approach towards BPM adoption might be appropriate under Clan culture, which was found to be the most favourable for adopting BPM. To be able to give valid and generalisable conclusions regarding the appropriate approach to BPM adoption under a specific organizational culture, further research on this topic is called for. Future research (similar case studies in different cultural contexts as well as empirical research) could show whether a specific approach would work just as well in other organizations with a similar culture and also whether this approach would not work as well under other types of organizational culture.

8 CONCLUSION

Organizational culture's significant impact on the success of BPM adoption is widely acknowledged in the literature. Studies have shown that a fit between BPM and organizational culture is necessary (vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011), as well as a fit between the approach to BPM and the culture of the organization (Armistead & Machin, 1997). However, despite the recognised importance of the role played by organizational culture in ensuring a successful BPM adoption, there was a gap in the empirical literature examining the association between organizational culture and the adoption of BPM. In addition, a clear understanding of what constitutes BPM adoption and how BPM adoption success can be measured was missing.

Accordingly, the dissertation had several objectives. The dissertation's purpose was to improve the understanding and provide a framework for the relationship between BPM adoption and different organizational culture types. The dissertation aimed to explore how BPM adoption success is associated with organizational culture. In particular, how the success of BPM adoption varies between different types of organizational culture, and which approach to BPM adoption is appropriate considering the existing organizational culture in the organization. These objectives were successfully achieved throughout the dissertation research.

The dissertation contributes significantly to both research and practice. First, it provides a clear definition of the concepts "BPM adoption" and "success of BPM adoption", which was missing in the existing literature. Second, it proposes a conceptual framework for the relationship between BPM adoption and different organizational culture types, which also incorporates the approach towards BPM adoption, which extends the existing research. Third, the dissertation addresses the gap in the empirical literature examining the association between organizational culture and BPM adoption success, and investigates how the success of BPM adoption varies between different types of organizational culture. Fourth, the dissertation identifies how BPM adoption can be approached in organizations with a Hierarchy culture and a Hierarchy-Market culture. The dissertation provides a better understanding of the relationship between organizational culture, approaches to BPM adoption and BPM adoption success. The findings can help organizations in preparing their BPM initiative by including a culture analysis in the preparatory phase of their BPM adoption. This is especially important for organizations with organizational culture types that are less supportive of BPM adoption. The dissertation extends the body of knowledge regarding cultural issues in BPM, and thereby contributes to more successful BPM adoption.

Future research could investigate approaches to BPM adoption under different organizational cultures. More case studies and empirical investigations are needed to confirm and expand the findings of the dissertation. Another important objective for future research could be to study the impact of organizational culture on BPM adoption success in different countries, thus including national culture in the research.

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APPENDICES

LIST OF APPENDICES

Appendix A: Questionnaire on Business Process Management Adoption (in Slovenian)

RAZISKAVA O PRIVZEMANJU MANAGEMENTA POSLOVNIH PROCESOV

Management poslovnih procesov - MPP (angl. Business Process Management - BPM) je sodoben poslovni pristop, ki poudarja uspešnost in učinkovitost poslovanja na podlagi usmerjenosti h kupcem, inovativnosti, fleksibilnosti, informatizacije in odpravljanja nepotrebnih aktivnosti ter zastojev znotraj poslovnih procesov organizacije. Temelji na filozofiji, da je za izboljšanje uspešnosti in učinkovitosti poslovanja potrebno procese poznati, izboljševati, informatizirati in spremljati njihovo izvajanje.

INDIVIDUALNE ZNAČILNOSTI	
** Iniciativa MPP je organizacijski projekt/program, katerega namen je povečati učinkovitost in uspešnost poslovnih procesov, npr. prenova procesov, »lean management«, »total quality management«, 6 sigma, itd.*	
Znanje o managementu poslovnih procesov (MPP)	
Katera trditev najbolje opisuje vaše znanje o managementu poslovnih procesov (MPP)?	☐ Nimam znanja o MPP. ☐ Samo teoretično znanje, pridobljeno npr. preko usposabljanja ali branja knjige o MPP. ☐ Samo praktično znanje, npr. praktične izkušnje s sodelovanjem pri iniciativi* MPP. ☐ Teoretično in praktično znanje. ☐ Brez odgovora.
Kako ocenjujete svoje znanje s področja MPP?	☐ Odlično ☐ Dobro ☐ Slabo ☐ Ne poznam
Izkušnje z MPP	
Ali ste že kdaj aktivno sodelovali pri iniciativi* MPP?	☐ Da, sodeloval/a sem pri _____ _____ [npr. modeliranju procesov, prenovi procesov]. ☐ Ne.
Če ste na prejšnje vprašanje odgovorili z DA, prosimo napišite, kakšna je bila vaša vloga v projektu [npr. vodja projekta, član projektne skupine].	
Stik s strankami	
Ali imate pri vašem delu direkten stik s strankami podjetja?	☐ Da ☐ Ne

PROCESNA USMERJENOST	
Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami glede procesne usmerjenosti v vaši organizaciji.	1 = sploh se ne strinjam; 5 = popolnoma se strinjam; X = ne vem
Procesni pogled	
Povprečni zaposleni vidi poslovanje podjetja kot niz povezanih procesov.	1 2 3 4 5 X
V organizaciji se pogosto uporabljajo izrazi kot so *proces*, *vhod procesa* (input, vložek), *izhod procesa* (output, rezultat), *lastnik procesa* in *skrbnik procesa*.	1 2 3 4 5 X
Procesi znotraj organizacije so definirani in dokumentirani z jasno opredeljenimi vhodi/izhodi za naše stranke.	1 2 3 4 5 X
Poslovni procesi so definirani tako, da večina zaposlenih razume, kako potekajo.	1 2 3 4 5 X
Delovna mesta	
Delovna mesta zahtevajo opravljanje širokega spektra več-dimenzionalnih nalog (ne le enostavna opravila).	1 2 3 4 5 X
Zaposleni imajo dovolj pristojnosti za odločanje na delovnem mestu.	1 2 3 4 5 X
Zaradi sprememb procesov se zaposleni neprestano učijo.	1 2 3 4 5 X
Lastniki (managerji, direktorji...) procesov so opredeljeni za vse poslovne procese.	1 2 3 4 5 X
Lastniki (managerji, direktorji...) procesov imajo pooblastila za sprejemanje odločitev o poslovnih procesih.	1 2 3 4 5 X
Lastniki (managerji, direktorji...) procesov so odgovorni za uspešnost in učinkovitost poslovnih procesov.	1 2 3 4 5 X
Management in merjenje procesov	
V organizaciji merimo učinkovitost (čas, stroški…) poslovnih procesov.	1 2 3 4 5 X
Mere učinkovitosti procesov so definirane.	1 2 3 4 5 X
Razporejanje virov temelji na procesih (ne poslovnih funkcijah).	1 2 3 4 5 X
Postavljeni so konkretni cilji za posamezne mere učinkovitosti procesa.	1 2 3 4 5 X
V organizaciji merimo kakovost izhodov (rezultatov) procesov.	1 2 3 4 5 X

INDEKS USPEŠNOSTI PROCESOV	
Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami.	1 = sploh se ne strinjam; 5 = popolnoma se strinjam
Usklajenost s strategijo	
Poslovni procesi so neposredno povezani s strategijo organizacije in ključnimi dejavniki uspeha.	1 2 3 4 5
Celovit pristop	
Poslovne procese organizacije najprej opredelimo, šele nato jih izboljšujemo (npr. s 6 Sigma).	1 2 3 4 5
Ozaveščenost o procesih s strani vodstva in zaposlenih	
Vodstvo in ključni zaposleni razumejo vlogo managementa procesov pri izboljševanju uspešnosti poslovanja.	1 2 3 4 5
Portfelj iniciativ managementa procesov	
Vrstni red izboljševanja procesov je določen glede na nujnost (“zdravje” procesa) in aktualnost.	1 2 3 4 5
Metodologija izboljševanja procesov	
Za analizo in načrtovanje procesov v organizaciji uporabljamo standarden (uveljavljen in definiran) pristop.	1 2 3 4 5
Merjenje procesov	
Uspešnost procesov merimo na individualni, procesni in organizacijski ravni.	1 2 3 4 5
Osredotočenost na kupca	
Pri analizi in načrtovanju procesov smo osredotočeni na ustvarjanje vrednosti za kupca.	1 2 3 4 5
Management procesov	
Lastniki procesov redno spremljajo podatke o uspešnosti procesov in si stalno prizadevajo za njihovo izboljševanje.	1 2 3 4 5
Informacijski sistemi	
Procesi imajo v organizaciji “glavno vlogo”, informacijski sistemi pa imajo funkcijo podpore.	1 2 3 4 5
Management sprememb	
Pri uvajanju sprememb v procesih upoštevamo vidike kulture in kadrov.	1 2 3 4 5

	ORGANIZACIJSKA KULTURA	
Pri vsakem od spodnjih sklopov (I-VI) razdelite 100 točk med štiri možnosti glede na to, v kolikšni meri je vsaka od možnosti podobna stanju v vaši organizaciji. Večje število točk dodelite možnosti, ki je najbolj podobna stanju v vaši organizaciji. Bodite pozorni na to, da bo vsota točk pri vsakem sklopu enaka 100.		
I	Prevladujoče značilnosti	
Organizacija je zelo oseben kraj. Je kot razširjena družina. Zaposleni med sabo delijo tudi osebne stvari.		
Organizacija je zelo dinamično, podjetniško mesto. Zaposleni so se pripravljeni izpostavljati in prevzeti določeno tveganje.		
Organizacija je zelo usmerjena k doseganju rezultatov. Najpomembnejša skrb je, da je delo opravljeno. Zaposleni so zelo tekmovalni in usmerjeni k doseganju ciljev.		
Organizacija je zelo nadzorovan in strukturiran kraj. Delo ljudi v glavnem usmerjajo formalni postopki.		
II	Vodstvo organizacije	
Zaposleni v organizaciji vodstvo vidijo v vlogi mentorjev, ki jih pri delu spodbujajo in vzgajajo.		
Zaposleni v organizaciji vodstvo vidijo v vlogi podjetnikov in inovatorjev, ki sprejemajo tveganja.		
Zaposleni v organizaciji vodstvo vidijo kot agresivne in osredotočene na rezultate, ki ne prenašajo nesmiselnosti.		
Zaposleni v organizaciji vodstvo vidijo v vlogi usklajevalcev in organizatorjev, ki skrbijo za nemoteno učinkovitost.		
III	Management zaposlenih	
Za stil managementa v organizaciji je značilno timsko delo, soglasnost in sodelovanje.		
Za stil managementa v organizaciji je značilno individualno sprejemanje tveganj, inovativnost, svoboda in edinstvenost.		
Za stil managementa v organizaciji je značilna močna tekmovalnost, visoka zahtevnost oz. pričakovanja in priznavanje dosežkov.		
Za stil managementa v organizaciji je značilna varnost zaposlitve, udobje, predvidljivost in stabilnost odnosov.		

Pri vsakem od spodnjih sklopov (I-VI) razdelite 100 točk med štiri možnosti glede na to, v kolikšni meri je vsaka od možnosti podobna stanju v vaši organizaciji. Večje število točk dodelite možnosti, ki je najbolj podobna stanju v vaši organizaciji. Bodite pozorni na to, da bo vsota točk pri vsakem sklopu enaka 100.		
IV	Organizacijske vrednote	
Glavni vrednoti, ki povezujeta organizacijo, sta zvestoba in medsebojno zaupanje. Pripadnost k organizaciji je visoka.		
Organizacijo povezuje zavezanost k inovacijam in razvoju. Glavni poudarek je na utiranju novih smernic.		
V organizaciji je poudarek na dosežkih in realizaciji ciljev. Agresivnost na trgu in zmagovanje sta glavni temi znotraj organizacije.		
Organizacijo povezujejo formalna pravila in postopki. Pomembno je vzdrževanje nemotenega delovanja organizacije.		
V	Strateška usmerjenost	
Organizacija je usmerjena v razvoj človeških virov. Prisotna je visoka stopnja medsebojnega zaupanja, odprtost in sodelovanje.		
Organizacija je usmerjena k pridobivanju novih resursov in postavljanju novih izzivov. Ceni se poskušanje novih stvari in iskanje priložnosti.		
Poudarek v organizaciji je na konkurenčnih dejanjih in dosežkih. Pomembno je doseganje ciljev in zmagovanje na trgu.		
Poudarek v organizaciji je na trajnosti in stabilnosti. Pomembni so učinkovitost, nadzor in nemoteno poslovanje.		
VI	Merila uspešnosti	
Organizacija meri uspeh glede na stopnjo razvoja človeških virov, timskega dela, predanosti zaposlenih ter skrbi za zaposlene.		
Organizacija meri uspeh glede na stopnjo edinstvenih in novih izdelkov/ storitev. Organizacija je vodilna na področju izdelkov/storitev in inovacij.		
Organizacija meri uspeh glede na prednost pred konkurenco na trgu. Tržna konkurenčnost je za organizacijo ključnega pomena.		
Organizacija meri uspeh glede na učinkovitost. Ključnega pomena so zanesljiva dostava, nemotena proizvodnja in poslovanje z nizkimi stroški.		

IZVAJANJE INICIATIVE MPP	
Iniciativa MPP je organizacijski projekt/program, katerega namen je povečati učinkovitost in uspešnost poslovnih procesov, npr. prenova poslovnih procesov, »lean management«, »total quality management«, 6 sigma, itd.	
Zanimanje za MPP	
Katera trditev najbolje opisuje trenutno zanimanje za MPP v vaši organizaciji?	☐ Ključna strateška zavezanost s strani vrhnjega managementa ☐ Pomembna iniciativa na nivoju več celovitih poslovnih procesov ☐ Začetna iniciativa omejena na določene manjše procese ☐ Raziskujemo možnosti ☐ Nas ne zanima
Organiziranost	
Ali v organizaciji obstaja skupina/oseba odgovorna za MPP? Če obstaja, kako je organizacijsko umeščena?	☐ Nimamo formalne skupine/osebe odgovorne za MPP ☐ Da, na nivoju najvišjega vodstva ☐ Da, imamo poseben oddelek/službo za MPP ☐ Da, znotraj službe za informatiko ☐ Da, znotraj kadrovske službe ☐ Da, znotraj službe za nadzor kakovosti ☐ Drugo, prosimo napišite: _____
Izkušnje z MPP	
Ali ste v vaši organizaciji že kdaj izvedli iniciativo MPP?	☐ Da. ☐ Ne.
Če ste na prejšnje vprašanje odgovorili z DA, prosimo označite kako obsežna je bila vaša iniciativa MPP (možnih je več odgovorov).	☐ Iniciativo MPP smo izvedli v nekaterih delih organizacije. ☐ Iniciativo MPP smo izvedli v celotni organizaciji. ☐ Iniciativa MPP je zajemala vse procese. ☐ Iniciativa MPP je zajemala del procesov. ☐ Iniciativo MPP smo izvedli enkrat. ☐ Iniciativo MPP smo izvedli večkrat. ☐ Iniciativa MPP se izvaja ves čas. ☐ Naša najdaljša iniciativa MPP je trajala več tednov. ☐ Naša najdaljša iniciativa MPP je trajala več mesecev. ☐ Naša najdaljša iniciativa MPP je trajala več let.

Razlogi za MPP	
Zaradi katerih razlogov ste izvedli iniciativo MPP v vaši organizaciji?	
Katere cilje ste želeli doseči z MPP v vaši organizaciji?	
Privzemanje MPP	
Kdo v vaši organizaciji je bil pobudnik za iniciativo MPP?	☐ Člani nadzornega sveta/lastniki ☐ Vodstvo, vrhnji management ☐ Informatiki ☐ Drugo (prosimo, napišite): _____
Kako ste se lotili izvedbe iniciative MPP v vaši organizaciji? *(Npr., od zgoraj navzdol ali od spodaj navzgor (top-down or bottom-up), z ali brez podpore vrhnjega managementa, kot del IT projekta, itd.)*	
Ali ste pri izvedbi iniciative MPP v vaši organizaciji imeli pomoč zunanjih svetovalcev?	☐ Ne. ☐ Da, njihova vloga je bila _____ _____ (prosimo napišite).
Ali ste pričakovali kakšne težave, preden ste začeli z iniciativo MPP v vaši organizaciji?	☐ Ne. ☐ Da, pričakovali smo naslednje težave (prosimo, napišite): _____ _____ _____ _____

Če ste na prejšnje vprašanje odgovorili z DA, kaj ste naredili, da bi se predvidenim težavam izognili?	
Kateri so bili ključni dejavniki uspeha pri izvedbi iniciative MPP v vaši organizaciji?	

	Rezultati privzema MPP						
Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami.		1 = sploh se ne strinjam; 5 = popolnoma se strinjam; X = ne vem					
Iniciativa MPP v naši organizaciji je bila uspešna.		1	2	3	4	5	X
Naši cilji glede MPP so bili doseženi.		1	2	3	4	5	X
MPP prispeva k izvajanju strategije naše organizacije.		1	2	3	4	5	X
MPP igra pomembno vlogo v vsakodnevnih delovnih praksah v naši organizaciji.		1	2	3	4	5	X
Odkar smo privzeli MPP, se je učinkovitost procesov v naši organizaciji izboljšala.		1	2	3	4	5	X
Odkar smo privzeli MPP, se je uspešnost procesov v naši organizaciji izboljšala.		1	2	3	4	5	X
Odkar smo privzeli MPP, se je agilnost (prilagodljivost) procesov v naši organizaciji izboljšala.		1	2	3	4	5	X

ORGANIZACIJSKE ZNAČILNOSTI	
	Velikost podjetja
Kolikšno je število zaposlenih v vaši organizaciji?	☐ manj kot 50 ☐ 50-249 zaposlenih ☐ 250-1000 zaposlenih ☐ nad 1000 zaposlenih ☐ brez odgovora
Kolikšen je bil obseg letnega prometa (čisti prihodki od prodaje) v letu 2012 [v milijon €]?	☐ do vključno 10 milijonov € ☐ več kot 10 in do vključno 50 milijonov € ☐ več kot 50 milijonov € ☐ brez odgovora

	Dejavnost organizacije
Katera je statistična klasifikacija ekonomske aktivnosti organizacije (dejavnost organizacije)?	☐A – Kmetijstvo in lov, gozdarstvo, ribištvo ☐B – Rudarstvo ☐C – Predelovalne dejavnosti ☐D – Oskrba z električno energijo, plinom in paro ☐E – Oskrba z vodo; ravnanje z odplakami in odpadki; saniranje okolja ☐F – Gradbeništvo ☐G –Trgovina; vzdrževanje in popravila motornih vozil ☐H – Promet in skladiščenje ☐I – Gostinstvo ☐J – Informacijske in komunikacijske dejavnosti ☐K – Finančne in zavarovalniške dejavnosti ☐L – Poslovanje z nepremičninami ☐M – Strokovne, znanstvene in tehnične dejavnosti ☐N – Druge raznovrstne poslovne dejavnosti ☐O – Dejavnost javne uprave in obrambe; dejavnost obvezne socialne varnosti ☐P – Izobraževanje ☐Q – Zdravstvo in socialno varstvo ☐R – Kulturne, razvedrilne in rekreacijske dejavnosti ☐S – Druge dejavnosti ☐T – Dejavnost gospodinjstev z zaposlenim hišnim osebjem; proizvodnja za lastno rabo ☐U – Dejavnost eksteritorialnih organizacij in teles

Za sodelovanje v raziskavi se Vam najlepše zahvaljujemo.

Appendix B: Questionnaire on Business Process Management Adoption (in Croatian)

UPITNIK O PRIHVAĆANJU UPRAVLJANJA POSLOVNIM PROCESIMA

Upravljanje poslovnim procesima (eng. Business Process Management - BPM) je moderan poslovni pristup usmjeren poboljšanju uspješnosti i učinkovitosti poslovanja kroz orijentaciju kupcima, inovaciju, fleksibilnost, informatizaciju te uklanjanje nepotrebnih aktivnosti i zastoja u poslovnim procesima organizacije. BPM pristup polazi od ideje da je za poboljšanje performansi organizacije potrebno poslovne procese identificirati, poboljšati, informatizirati te kontinuirano pratiti.

INDIVIDUALNE ZNAČAJKE	
** BPM inicijativa je projekt/program organizacije čiji je cilj poboljšati učinkovitost i uspješnost poslovnih procesa. Primjeri BPM inicijativa jesu: reinženjerstvo poslovnih procesa, „lean management", cjelovito upravljanje kvalitetom (eng. Total Quality Management – TQM), 6 sigma, itd.*	
Znanje o upravljanju poslovnim procesima (BPM)	
Koja izjava najbolje opisuje vaše znanje o upravljanju poslovnim procesima?	☐ Nemam znanja o BPM. ☐ Samo teorijsko znanje, npr. putem osposobljavanja ili čitanja knjige o BPM. ☐ Samo praktično znanje, npr. praktično iskustvo kroz sudjelovanje u BPM inicijativi*. ☐ Teoretsko i praktično znanje. ☐ Bez odgovora.
Kako ocjenjujete svoje znanje s područja BPM?	☐ Odlično ☐ Dobro ☐ Slabo ☐ Bez znanja
Iskustvo s BPM	
Jeste li ikada aktivno sudjelovali u BPM inicijativi*?	☐ Da, sudjelovao/la sam u _____ _____ [npr. modeliranju procesa, promjeni procesa]. ☐ Ne.
Ako je odgovor na prethodno pitanje bio DA, molimo opišite koja je bila vaša uloga u projektu [npr. voditelj projekta, član projektne skupine].	
Kontakt s kupcima	
Da li u vašem radu imate izravan kontakt s kupcima?	☐ Da ☐ Ne

PROCESNA ORIJENTACIJA						
Označite do koje mjere se slažete/ne slažete sa slijedećim tvrdnjama glede procesne orijentacije u vašoj organizaciji.	1 = uopće se ne slažem; 5 = potpuno se slažem; X = ne mogu prosuditi					
	Procesni pogled					
Prosječni zaposlenik vidi poslovanje kao niz povezanih procesa.	1	2	3	4	5	X
U organizaciji se često koriste termini poput *ulaz procesa* (input), *izlaz procesa* (output, ishod), *proces*, *vlasnik procesa* i *voditelj procesa*.	1	2	3	4	5	X
Procesi unutar organizacije su definirani i dokumentirani s jasno definiranim ulazom/izlazom za naše kupce.	1	2	3	4	5	X
Poslovni procesi su definirani tako da većina zaposlenih razumije kako funkcioniraju.	1	2	3	4	5	X
	Radna mjesta					
Radna mjesta obično podrazumijevaju obavljanje višedimenzionalnih, a ne samo jednostavnih zadataka.	1	2	3	4	5	X
Zaposlenici na svojem radnom mjestu često donose odluke.	1	2	3	4	5	X
Zbog promjena u procesima, zaposlenici neprestano uče.	1	2	3	4	5	X
Vlasnici procesa (menadžeri, direktori…) su definirani za sve poslovne procese.	1	2	3	4	5	X
Vlasnici procesa (menadžeri, direktori…) imaju ovlasti odlučivanja o poslovnim procesima.	1	2	3	4	5	X
Vlasnici procesa (menadžeri, direktori…) su odgovorni za uspješnost i učinkovitost poslovnih procesa.	1	2	3	4	5	X
	Menadžment i mjerenje procesa					
U organizaciji mjerimo učinkovitost poslovnih procesa.	1	2	3	4	5	X
Mjere učinkovitosti procesa su definirane.	1	2	3	4	5	X
Resursi su alocirani na temelju procesa (ne poslovnih funkcija).	1	2	3	4	5	X
Postavljeni su konkretni ciljevi za pojedinačne mjere učinka procesa.	1	2	3	4	5	X
U organizaciji mjerimo izlaze (rezultate) procesa.	1	2	3	4	5	X

INDEKS USPJEŠNOSTI PROCESA	
Označite do koje mjere se slažete/ne slažete sa slijedećim tvrdnjama.	1 = uopće se ne slažem; 5 = potpuno se slažem
Usklađenost sa strategijom	
Poslovni procesi su izravno povezani sa strategijom organizacije i ključnim čimbenicima uspjeha.	1 2 3 4 5
Holistički pristup	
Poslovni procesi organizacije su definirani prije pokretanja inicijative za poboljšanje. (npr. Six Sigma).	1 2 3 4 5
Procesna osviještenost od strane rukovoditelja i zaposlenih	
Rukovoditelji i ključni zaposlenici razumiju ulogu upravljanja procesima u poboljšanju uspješnosti poduzeća.	1 2 3 4 5
Portfelj inicijative upravljanja procesima	
Redoslijed poboljšavanja procesa određuje se prema potrebi („zdravlje“ procesa) i aktualnosti.	1 2 3 4 5
Metodologija poboljšanja procesa	
Za analizu i dizajn procesa u organizaciji koristimo standardne (prihvaćene i definirane) pristupe.	1 2 3 4 5
Mjerenje procesa	
Uspješnost procesa mjerimo na individualnoj, procesnoj i organizacijskoj razini.	1 2 3 4 5
Usmjerenost na kupca	
Pri analizi i dizajniranju procesa usmjereni smo na stvaranje vrijednosti za kupca.	1 2 3 4 5
Upravljanje procesima	
Vlasnici procesa redovito prate podatke o izvedbi procesa i stalno rade na njihovom poboljšavanju.	1 2 3 4 5
Informacijski sustavi	
U organizaciji procesi imaju „glavnu ulogu“, a informacijski sustavi imaju potpornu funkciju.	1 2 3 4 5
Upravljanje promjenama	
Pri uvođenju promjena u procese uzimamo u obzir pitanja zaposlenika i organizacijske kulture.	1 2 3 4 5

	ORGANIZACIJSKA KULTURA	
Za svaku od sljedećih skupina pitanja (I-VI) podijelite 100 bodova između četiri opcije, ovisno o tome u kojoj je mjeri svaka opcija slična situaciji u vašoj organizaciji. Dodijelite veći broj bodova opciji koja najviše sliči situaciji u vašoj organizaciji. Obratite pozornost da iznos bodova u svakoj skupini pitanja bude jednak 100.		
I	Prevladavajuće značajke	
Organizacija je vrlo osobno mjesto. Ona je kao proširena obitelj. Također, zaposlenici međusobno dijele puno osobnih stvari.		
Organizacija je vrlo dinamično poduzetničko mjesto. Zaposlenici su se spremni izložiti i preuzeti rizik.		
Organizacija je vrlo usmjerena na postizanje rezultata. Najvažniji problem je da se posao obavi. Zaposlenici se ponašaju konkurentski i usmjereni su postizanju ciljeva.		
Organizacija je vrlo kontrolirano i strukturirano mjesto. Formalne procedure uglavnom određuju poslove zaposlenika.		
II	Vodstvo organizacije	
Zaposlenici rukovodstvo organizacije doživljavaju kao mentore, koji ih pri obavljanju posla potiču i njeguju.		
Zaposlenici rukovodstvo organizacije doživljavaju kao poduzetnike i inovatore koji su spremni riskirati.		
Zaposlenici rukovodstvo organizacije doživljavaju kao agresivne i orijentirane na rezultate, koji ne toleriraju gluposti.		
Zaposlenici rukovodstvo organizacije doživljavaju kao koordinatore i organizatore koji osiguravaju nesmetanu učinkovitost.		
III	Upravljanje zaposlenicima	
Stil upravljanja u organizaciji karakteriziran je timskim radom, konsenzusom i suradnjom.		
Stil upravljanja u organizaciji karakteriziran je pojedinačnim preuzimanjem rizika, inovacijama, slobodom i jedinstvenošću.		
Stil upravljanja u organizaciji karakteriziran je jakom konkurencijom, visokim zahtjevima i očekivanjima te priznavanjem postignuća.		
Stil upravljanja u organizaciji karakteriziran je sigurnošću radnog mjesta, udobnošću, stabilnošću i predvidivošću odnosa.		

Za svaku od sljedećih skupina pitanja (I-VI) podijelite 100 bodova između četiri opcije, ovisno o tome u kojoj je mjeri svaka opcija slična situaciji u vašoj organizaciji. Dodijelite veći broj bodova opciji koja najviše sliči situaciji u vašoj organizaciji. Obratite pozornost da iznos bodova u svakoj skupini pitanja bude jednak 100.		
IV	Organizacijske vrijednosti	
Glavne vrijednosti na kojima se temelji organizacija su vjernost i međusobno povjerenje. Pripadnost organizaciji je visoka.		
Glavne vrijednosti na kojima se temelji organizacija su predanost inovacijama i razvoju. Glavni fokus je na postavljanju novih smjernica.		
Glavna vrijednost na kojoj se temelji organizacija je fokusiranje na postignuća i postizanje ciljeva. Glavne teme unutar organizacije su agresivnost na tržištu i osvajanje.		
Glavna vrijednost na kojoj se temelji organizacija je fokusiranje na formalna pravila i procedure. Važno je održavanje nesmetanog funkcioniranja organizacije.		
V	Strateška usmjerenost	
Organizacija je usmjerena na razvoj ljudskih resursa. Postoji visok stupanj međusobnog povjerenja, otvorenosti i suradnje .		
Organizacija je usmjerena na stjecanje novih resursa i postavljanje novih izazova. Cijeni se isprobavanje novih pristupa i pronalaženje mogućnosti.		
Fokus organizacije je na konkurentskom djelovanju i postignućima. Važno je postizanje ciljeva i osvajanja na tržištu.		
Fokus organizacije je na održivosti i stabilnosti. Važne su učinkovitost, kontrola i nesmetano poslovanje.		
VI	Kriteriji uspješnosti	
Organizacija određuje uspjeh na temelju razine razvoja ljudskih resursa, timskog rada, predanosti zaposlenika i brizi za zaposlenike.		
Organizacija određuje uspjeh na temelju posjedovanja jedinstvenih i novih proizvoda/usluga. Organizacija je lider na području proizvoda/usluga i inovacija.		
Organizacija određuje uspjeh na temelju konkurentske prednosti na tržištu. Tržišna konkurentnost je presudna za organizaciju.		
Organizacija određuje uspjeh na temelju učinkovitosti. Od posebne važnosti su pouzdana isporuka, glatka proizvodnja i niski operativni troškovi.		

BPM INICIJATIVA	
** BPM inicijativa je projekt/program organizacije čiji je cilj poboljšati učinkovitost i uspješnost poslovnih procesa. Primjeri BPM inicijativa jesu: reinženjerstvo poslovnih procesa, „lean management", cjelovito upravljanje kvalitetom (eng. Total Quality Management – TQM), 6 sigma, itd.*	
	Zanimanje za BPM
Koja tvrdnja najbolje opisuje trenutni interes za BPM u organizaciji?	☐ Ključno strateško opredjeljenje vrhovnog menadžmenta ☐ Važna inicijativa na razini više integriranih poslovnih procesa ☐ Početna inicijativa ograničena na određene manje procese ☐ Razmatramo opcije ☐ Nismo zainteresirani
	Organizacijska struktura
Imate li posebnu grupu (odjel / jedinicu) ili pojedinca unutar organizacije koja je odgovorna za upravljanje poslovnim procesima? Ako da, kako je organizirana?	☐ Ne postoji posebna grupa/pojedinac odgovoran za BPM ☐ Da, na razini vrhovnog menadžmenta ☐ Da, imamo poseban odjel/službu za BPM ☐ Da, unutar službe za informatiku ☐ Da, unutar odjela za ljudske resurse ☐ Da, unutar odjela za kontrolu kvalitete ☐ Drugo, molimo napišite: _____
	Iskustvo s BPM
Da li je u vašoj organizaciji ikada provedena BPM inicijativa?	☐ Da. ☐ Ne.
Ako ste na prethodno pitanje odgovorili sa DA, molimo navedite koliko je opsežna bila vaša BPM inicijativa (dozvoljeno je više odgovora).	☐ BPM inicijativa je provedena u nekim dijelovima organizacije. ☐ BPM inicijativa je provedena u cijeloj organizaciji. ☐ BPM inicijativa je obuhvatila sve procese. ☐ BPM inicijativa je obuhvatila neke procese. ☐ BPM inicijativa je bila provedena jednom. ☐ BPM inicijativa je bila provedena nekoliko puta. ☐ BPM inicijativa se provodi kontinuirano. ☐ Naša najdulja BPM inicijativa je trajala nekoliko tjedana. ☐ Naša najdulja BPM inicijativa je trajala nekoliko mjeseci. ☐ Naša najdulja BPM inicijativa je trajala nekoliko godina.

Razlozi za BPM	
Koji su bili razlozi za provedbu BPM inicijative u vašoj organizaciji?	
Koje ciljeve ste željeli postići sa BPM u vašoj organizaciji?	
Prihvaćanje BPM-a	
Tko je započeo BMP inicijativu u vašoj organizaciji?	☐ Članovi nadzornog odbora/vlasnici ☐ Vrhovni menadžment ☐ IT ☐ Drugo (molimo, napišite):_____
Kako ste pristupili BPM inicijativi u vašoj organizaciji? *(npr., odozgo dolje ili odozdo gore (engl.“top-down“ ili „bottom-up)“, sa ili bez podrške vrhovnog menadžmenta, kao dio IT projekta, itd.)*	
Jeste li u provedbi BPM inicijative u vašoj organizaciji imali pomoć vanjskih konzultanata?	☐ Ne. ☐ Da, njihova uloga bila je _____ _____ (molimo napišite).
Jeste li očekivali bilo kakve probleme prije započinjanja BPM inicijative u vašoj organizaciji?	☐ Ne. ☐ Da, očekivali smo slijedeće probleme (molimo napišite): _____ _____ _____ _____
Ako ste na prethodno pitanje odgovorili sa DA, što ste učinili kako bi izbjegli očekivane probleme?	

Koji su bili ključni čimbenici uspjeha u provedbi BPM inicijative u vašoj organizaciji?	

	Ishodi usvajanja BPM	
Označite do koje mjere se slažete/ne slažete sa slijedećim tvrdnjama.		1 = uopće se ne slažem; 5 = potpuno se slažem; X = ne mogu prosuditi
Usvajanje BPM u našoj organizaciji je bilo vrlo uspješno.		1 2 3 4 5 X
Naši ciljevi vezani za BPM su postignuti.		1 2 3 4 5 X
BPM doprinosi provedbi strategije naše organizacije.		1 2 3 4 5 X
BPM igra važnu ulogu u svakodnevnoj poslovnoj praksi naše organizacije.		1 2 3 4 5 X
Od kada smo usvojili BPM učinkovitost procesa u našoj organizaciji se poboljšala.		1 2 3 4 5 X
Od kada smo usvojili BPM uspješnost procesa u našoj organizaciji se poboljšala.		1 2 3 4 5 X
Od kada smo usvojili BPM agilnost (fleksibilnost) procesa u našoj organizaciji se poboljšala.		1 2 3 4 5 X
Zadovoljstvo kupaca je poraslo.		1 2 3 4 5 X
Kvaliteta proizvoda/usluga je porasla.		1 2 3 4 5 X
Vrijeme potrošeno na procese pružanja usluga je skraćeno.		1 2 3 4 5 X
Vrijeme potrošeno na druge glavne procese je skraćeno.		1 2 3 4 5 X
Vrijeme potrošeno na planiranje i postavljanje ciljeva je skraćeno.		1 2 3 4 5 X
Vrijeme potrošeno na analizu i korektivne mjere je skraćeno.		1 2 3 4 5 X
Vrijeme reakcije na unutarnje promjene je skraćeno.		1 2 3 4 5 X
Vrijeme reakcije na vanjske promjene je skraćeno.		1 2 3 4 5 X
Troškovi procesa pružanja usluga su smanjeni.		1 2 3 4 5 X
Troškovi drugih glavnih procesa su smanjeni.		1 2 3 4 5 X
Troškovi planiranja i postavljanja ciljeva su smanjeni.		1 2 3 4 5 X
Troškovi analize i korektivnih mjera su smanjeni.		1 2 3 4 5 X

ZNAČAJKE ORGANIZACIJE	
Veličina organizacije	
Koliko je zaposlenika zaposleno u vašoj organizaciji?	☐ manje od 50 ☐ 50-249 zaposlenika ☐ 250-1000 zaposlenika ☐ više od 1000 zaposlenika ☐ bez odgovora
Koji je okvirni prihod od prodaje (promet) vaše organizacije u 2012 [u milijunima €]?	☐ do uključeno 10 milijuna € ☐ više od 10 milijuna i do uključeno 50 milijuna € ☐ više od 50 milijuna € ☐ bez odgovora
Djelatnost organizacije	
Koja je statistička klasifikacija ekonomske aktivnosti vaše organizacije (djelatnost organizacije)?	☐ A – Poljoprivreda, šumarstvo i ribarstvo ☐ B – Rudarstvo i vađenje ☐ C – Prerađivačka industrija ☐ D – Opskrba električnom energijom, plinom, parom i klimatizacija ☐ E – Opskrba vodom; uklanjanje otpadnih voda, gospodarenje otpadom ☐ F – Građevinarstvo ☐ G – Trgovina na veliko i na malo; popravak motornih vozila i motocikala ☐ H – Prijevoz i skladištenje ☐ I – Djelatnosti pružanja smještaja te pripreme i usluživanja hrane ☐ J – Informacije i komunikacije ☐ K – Financijske djelatnosti i djelatnosti osiguranja ☐ L – Poslovanje nekretninama ☐ M – Stručne, znanstvene i tehničke djelatnosti ☐ N – Administrativne i pomoćne uslužne djelatnosti ☐ O – Javna uprava i obrana; obvezno socijalno osiguranje ☐ P – Obrazovanje ☐ Q – Djelatnosti zdravstvene zaštite i socijalne skrbi ☐ R – Umjetnost, zabava i rekreacija ☐ S – Ostale uslužne djelatnosti ☐ T – Djelatnosti kućanstava kao poslodavaca; djelatnosti kućanstava koja proizvode različitu robu i obavljaju različite usluge za vlastite potrebe ☐ U – Djelatnosti izvanteritorijalnih organizacija i tijela

Hvala Vam na sudjelovanju u anketi.

Appendix C: Semi-structured interview guide for researching approaches towards BPM adoption (in Slovenian)

OKVIRNA IZHODIŠČA POL-STRUKTURIRANIH INTERVJUJEV: PRISTOPI K MANAGEMENTU POSLOVNIH PROCESOV

Ime in priimek intervjuvanca:
Delovno mesto:

UVOD V INTERVJU

Ključne teme, ki bodo obravnavane v intervjujih:

- razlogi za iniciativo MPP (zakaj ste se lotili MPP) in cilji privzema MPP,
- postopek privzemanja MPP (kako ste se lotili MPP),
- kateri ključni dejavniki uspeha (KDU) so bili pomembni pri projektu MPP – kaj je bilo pomembno, da je projekt uspel,
- kako MPP vpliva na vsakodnevno delo (če sploh, kaj se je spremenilo na boljše/slabše),
- mnenje zaposlenih o uspešnosti iniciative MPP.

VPRAŠANJA

Na intervjujih bodo zastavljena naslednja vprašanja. Po potrebi bodo postavljena tudi dodatna vprašanja za pridobitev bolj jasne in poglobljene slike o temah, ki bodo obravnavane. Vsak intervju bo predvidoma trajal približno 60 minut. S soglasjem intervjuvancev se bodo intervjuji snemali s snemalnikom zvoka.

Splošna, uvodna vprašanja:

- Na katerem delovnem mestu ste zaposleni?
- Kdaj ste začeli delati v tej organizaciji?
- Kdaj ste začeli delati na tem delovnem mestu?
- Kakšno delo običajno opravljate? Na kakšnih projektih običajno / trenutno delate?
- Kako ocenjujete svoje znanje s področja MPP *(slabo, dobro, odlično*)? Kakšno znanje o MPP imate (*teoretično, praktično, oboje*)? Kje/kako ste pridobili to znanje?
- Kaj za vas pomeni MPP – kakšno je vaše mnenje o MPP (*nekaj pozitivnega, nepotrebno,..*)?
- Kako menite, da MPP vidijo ostali zaposleni – kakšno mnenje imajo o MPP?
- Kakšne izkušnje z MPP imate v vaši organizaciji?
- V kakšni vlogi ste se (večinoma) srečali z MPP (*Procesni analitik, Sistemski inženir, Udeleženec v procesu / izvajalec procesa, Lastnik procesa, Vodja procesa, Vrhnji management*)?
- Ste imeli že kakšne predhodne izkušnje z MPP, pred projektom v vaši organizaciji?

- Kakšna je bila vaša vloga v projektu MPP (*npr. vodja projekta, član projektne skupine*)? Opišite vaše naloge, ki jih imate v zvezi s projektom MPP.

Razlogi in cilji privzema MPP:

- Zaradi katerih razlogov ste izvedli iniciativo MPP v vaši organizaciji? Kaj je vplivalo na odločitev za MPP? Lahko razloge razvrstite po pomembnosti?
- Kakšna so bila vaša pričakovanja glede MPP?
- Katere cilje ste želeli doseči z MPP v vaši organizaciji? So cilji merljivi?
- Ste imeli / imate v zvezi z MPP jasno vizijo in cilje?

Postopek privzemanja MPP:

- Kdo v vaši organizaciji je bil pobudnik za iniciativo MPP (*Člani nadzornega sveta/lastniki, Vodstvo oz. vrhnji management, Informatiki, Drugo*)?
- Kdo je dal »zeleno luč« za začetek projekta?
- Kdo v organizaciji je odgovoren za sprejemanje odločitev glede privzemanja MPP (*Katere procese se bo modeliralo in prenavljalo, kdo bo sodeloval pri projektu, kako se lotiti projekta, kdo bo imel dostop do dokumentov itd.*)?
- Kako ste se lotili privzemanja MPP (izvedbe iniciative MPP) v vaši organizaciji? *(Npr., od zgoraj navzdol ali od spodaj navzgor (top-down or bottom-up), z ali brez podpore vrhnjega managementa, kot del IT projekta, tako da ste vključili zaposlene, izvedba delavnic, sprememba strategije, pilotni projekt, celovit pristop, modeliranje nekaterih procesov, modeliranje vseh procesov, itd.)*
- Opišite postopek privzema MPP in prenove procesov – kako je potekal, koliko časa, kdo vse je bil udeležen, kdo je za kaj odgovoren?
- Lahko opišete faze projekta MPP?
- Vključenost, sodelovanje zaposlenih? So zaposleni pri iniciativi MPP sodelovali prostovoljno (se jim je zdelo to potrebno), ali so šli v to, ker je bilo zahtevano (npr. s strani vodstva)?
- Kako ste sodelovali v projektu, kako ste bili obveščeni o dogajanju v zvezi s projektom MPP in glede MPP na sploh (*kaj to je, zakaj ste šli v to, kaj so cilji,…*)?
- Deljenje informacij znotraj podjetja?
- Je bila organizacija uspešna pri ozaveščanju o (pomembnosti) MPP?
- Kako dobro je organizacija (management) komunicirala z zaposlenimi in drugimi deležniki glede ciljev, ukrepov, rezultatov iniciative MPP? Kako učinkovita je bila komunikacija? Preko katerih medijev je potekala komunikacija?
- Ste imeli pomoč zunanjih svetovalcev? Predlogi izboljšav – so se vam zdeli smiselni? Kaj vam je bilo všeč in kaj vam ni bilo všeč? Vas je kaj presenetilo ali so zunanji svetovalci samo potrdili to, kar ste že vedeli? Zakaj so potrebni zunanji izvajalci? Kako ste se lotili dela, ko so vam zunanji svetovalci predali dokumente in predloge izboljšav (implementacija sprememb)?
- Kakšen je vaš pogled na pristop k privzemanju MPP v vaši organizaciji? Dober /slab pristop? Kaj bi naredili drugače (*če bi znova imeli možnost*)?

KDU privzemanja MPP:

- Kateri so bili ključni dejavniki uspeha pri izvedbi iniciative MPP v vaši organizaciji? KDU po posameznih fazah projekta – kaj je bilo ključno za uspeh? Kateri dejavniki so imeli največji vpliv, so bili najpomembnejši? Lahko razvrstite KDU-je po pomembnosti?
- Ali ste pričakovali kakšne težave, preden ste začeli z iniciativo MPP v vaši organizaciji? Katere? Kaj ste naredili, da bi se predvidenim težavam izognili? Ste se jim uspešno izognili?
- S katerimi težavami ste se spopadali pri projektu MPP? Kako ste reševali te težave?
- Kakšna je bila po vašem mnenju vloga posameznika pri privzemanju MPP v vaši organizaciji?
- Kako je moral posameznik spremeniti svoje obnašanje/delovanje, da je projekt MPP lahko normalno potekal (brez večjih težav) in bil uspešno zaključen?
- Kaj je motiviralo posameznika, da je spremenil svoje obnašanje v smeri večje procesne usmerjenosti?
- Kakšna je bila vloga managementa pri privzemanju MPP v organizaciji *(npr. določanje pravil, postopkov, vodenje projekta, podpora, postavljanje KPI)*?
- Ste kdaj razmišljali o organizacijski kulturi v vaši organizaciji? Kako vpliva na vaše poslovanje?

Posledice/rezultati privzema MPP:

- Ali igra MPP kakšno vlogo pri vašem vsakodnevnem delu, ki ga opravljate oz. pri projektih, ki jih izvajate? Kako MPP vpliva na vaše delo (če vpliva)?
- Kakšen je vpliv MPP na poslovanje podjetja / delovanje vaše organizacije? Kakšen je vpliv MPP na vaše stranke?
- Se je po projektu dejansko kaj spremenilo (na boljše/slabše) zaradi uvedbe MPP (npr. način dela, strategija, pravila, poslovni procesi)? Kaj se je spremenilo zaradi MPP-ja, kako?
- Lahko daste primer, kaj se je spremenilo zaradi MPP (lahko opišete spremembo: kako je bilo prej in kako je sedaj)?
- Kako je prišlo do teh sprememb (*zahteva vodstva, sprememba pravil/postopkov, lastna izbira/iniciativa za spremembo, dobili nove informacije kako nekaj počnejo druge OE,…*)?
- Ali ste lastnik kakšnega procesa? Kakšne so vaše naloge kot lastnika /skrbnika procesa? Imate pristojnosti za izboljševanje procesov? Ali so odgovornost in vloge natančno določene?
- Opolnomočenje zaposlenih ali zelo centralizirano odločanje?
- So zaposleni kaj nagrajeni za svoje delo v zvezi z MPP (*kaj jih motivira: nagrada, ukaz vodstva, zavedanje o nujnosti MPP…*)?
- So pomembnejši rezultati (doseganje rezultatov) ali delo po pravilih (držanje postopkov)?
- Ali MPP prispeva k izvajanju strategije vase organizacije? Kako?

- Na kateri stopnji privzemanja MPP ste trenutno?
- Katere ukrepe v zvezi z MPP ste sprejeli do sedaj? Plani za naprej glede MPP?

Mnenje o uspešnosti MPP:

- Ali je bil projekt MPP v vaši organizaciji uspešen? Zakaj? Kako merite uspeh MPP, uspešnost procesov?
- Mnenje o projektu MPP – Kaj je bilo dobro? Kaj bi naredili drugače?
- So bili (vsi) cilji MPP projekta doseženi?
- So bila vaša pričakovanja o MPP izpolnjena?
- Zakaj ste bili uspešni – kako vam je uspelo?
- Je bil privzem MPP koristen za vašo organizacijo? Je bil koristen za vas? Imate občutek, da je MPP prinesel prednosti oz. izboljšave vam in vaši organizaciji?
- Kaj ste dosegli /pridobili z MPP? Je MPP zaživel v praksi?
- Kaj ste osebno odnesli od projekta? Je bilo vaše mnenje upoštevano? Ste zadovoljni s projektom MPP in rezultati tega projekta?

Drugo:

- Še kakšen dodaten komentar?
- Vas lahko kontaktiram z morebitnimi (manjšimi) nadaljnjimi vprašanji?

Za Vaš čas, trud in sodelovanje se Vam najlepše zahvaljujem.

Appendix D: Questionnaire on Business Process Management Adoption for case studies (in Slovenian)

VPRAŠALNIK O PRIVZEMANJU MANAGEMENTA POSLOVNIH PROCESOV

Management poslovnih procesov - *MPP* (angl. Business Process Management - BPM) je sodoben poslovni pristop, ki poudarja uspešnost in učinkovitost poslovanja na podlagi usmerjenosti h kupcem, inovativnosti, fleksibilnosti, informatizacije in odpravljanja nepotrebnih aktivnosti ter zastojev znotraj poslovnih procesov organizacije. Temelji na filozofiji, da je za izboljšanje uspešnosti in učinkovitosti poslovanja potrebno procese poznati, izboljševati, informatizirati in spremljati njihovo izvajanje.

PROCESNA USMERJENOST	
Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami glede procesne usmerjenosti v vaši organizaciji.	1 = sploh se ne strinjam; 5 = popolnoma se strinjam; X = ne vem
Procesni pogled	
Povprečni zaposleni vidi poslovanje podjetja kot niz povezanih procesov.	1 2 3 4 5 X
V organizaciji se pogosto uporabljajo izrazi kot so *proces*, *vhod procesa* (input, vložek), *izhod procesa* (output, rezultat), *lastnik procesa* in *skrbnik procesa*.	1 2 3 4 5 X
Procesi znotraj organizacije so definirani in dokumentirani z jasno opredeljenimi vhodi/izhodi za naše stranke.	1 2 3 4 5 X
Poslovni procesi so definirani tako, da večina zaposlenih razume, kako potekajo.	1 2 3 4 5 X
Delovna mesta	
Delovna mesta zahtevajo opravljanje širokega spektra več-dimenzionalnih nalog (ne le enostavna opravila).	1 2 3 4 5 X
Zaposleni imajo dovolj pristojnosti za odločanje na delovnem mestu.	1 2 3 4 5 X
Zaradi sprememb procesov se zaposleni neprestano učijo.	1 2 3 4 5 X
Lastniki (managerji, direktorji...) procesov so opredeljeni za vse poslovne procese.	1 2 3 4 5 X
Lastniki (managerji, direktorji...) procesov imajo pooblastila za sprejemanje odločitev o poslovnih procesih.	1 2 3 4 5 X
Lastniki (managerji, direktorji...) procesov so odgovorni za uspešnost in učinkovitost poslovnih procesov.	1 2 3 4 5 X

	Management in merjenje procesov	
V organizaciji merimo učinkovitost (čas, stroški…) poslovnih procesov.	1 2 3 4 5 X
Mere učinkovitosti procesov so definirane.	1 2 3 4 5 X
Razporejanje virov temelji na procesih (ne poslovnih funkcijah).	1 2 3 4 5 X
Postavljeni so konkretni cilji za posamezne mere učinkovitosti procesa.	1 2 3 4 5 X
V organizaciji merimo kakovost izhodov (rezultatov) procesov.	1 2 3 4 5 X

INDEKS USPEŠNOSTI PROCESOV	
Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami.	1 = sploh se ne strinjam; 5 = popolnoma se strinjam
	Usklajenost s strategijo
Poslovni procesi so neposredno povezani s strategijo organizacije in ključnimi dejavniki uspeha.	1 2 3 4 5
	Celovit pristop
Poslovne procese organizacije najprej opredelimo, šele nato jih izboljšujemo (npr. s 6 Sigma).	1 2 3 4 5
	Ozaveščenost o procesih s strani vodstva in zaposlenih
Vodstvo in ključni zaposleni razumejo vlogo managementa procesov pri izboljševanju uspešnosti poslovanja.	1 2 3 4 5
	Portfelj iniciativ managementa procesov
Vrstni red izboljševanja procesov je določen glede na nujnost (“zdravje” procesa) in aktualnost.	1 2 3 4 5
	Metodologija izboljševanja procesov
Za analizo in načrtovanje procesov v organizaciji uporabljamo standarden (uveljavljen in definiran) pristop.	1 2 3 4 5
	Merjenje procesov
Uspešnost procesov merimo na individualni, procesni in organizacijski ravni.	1 2 3 4 5
	Osredotočenost na kupca
Pri analizi in načrtovanju procesov smo osredotočeni na ustvarjanje vrednosti za kupca.	1 2 3 4 5
	Management procesov
Lastniki procesov redno spremljajo podatke o uspešnosti procesov in si stalno prizadevajo za njihovo izboljševanje.	1 2 3 4 5

Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami.	1 = sploh se ne strinjam; 5 = popolnoma se strinjam
Informacijski sistemi	
Procesi imajo v organizaciji "glavno vlogo", informacijski sistemi pa imajo funkcijo podpore.	1 2 3 4 5
Management sprememb	
Pri uvajanju sprememb v procesih upoštevamo vidike kulture in kadrov.	1 2 3 4 5

IZVAJANJE INICIATIVE MPP	
Zanimanje za MPP	
Katera trditev najbolje opisuje trenutno zanimanje za MPP v vaši organizaciji?	☐ Ključna strateška zavezanost s strani vrhnjega managementa ☐ Pomembna iniciativa na nivoju več celovitih poslovnih procesov ☐ Začetna iniciativa omejena na določene manjše procese ☐ Raziskujemo možnosti ☐ Nas ne zanima
Organiziranost	
Ali v organizaciji obstaja skupina/oseba odgovorna za MPP? Če obstaja, kako je organizacijsko umeščena?	☐ Nimamo formalne skupine/osebe odgovorne za MPP ☐ Da, na nivoju najvišjega vodstva ☐ Da, imamo poseben oddelek/službo za MPP ☐ Da, znotraj službe za informatiko ☐ Da, znotraj kadrovske službe ☐ Da, znotraj službe za nadzor kakovosti ☐ Drugo, prosimo napišite: _____
Izkušnje z MPP	
Prosimo označite kako obsežna je bila vaša iniciativa* MPP (možnih je več odgovorov). ** Iniciativa MPP je organizacijski projekt/program, katerega namen je povečati učinkovitost in uspešnost poslovnih procesov, npr. prenova poslovnih procesov, »lean management«, »total quality management«, 6 sigma, itd.*	☐ Iniciativo MPP smo izvedli v nekaterih delih organizacije. ☐ Iniciativo MPP smo izvedli v celotni organizaciji. ☐ Iniciativa MPP je zajemala vse procese. ☐ Iniciativa MPP je zajemala del procesov. ☐ Iniciativo MPP smo izvedli enkrat. ☐ Iniciativo MPP smo izvedli večkrat. ☐ Iniciativa MPP se izvaja ves čas. ☐ Naša najdaljša iniciativa MPP je trajala več tednov. ☐ Naša najdaljša iniciativa MPP je trajala več mesecev. ☐ Naša najdaljša iniciativa MPP je trajala več let.

	Rezultati privzema MPP	
Označite, do katere mere se strinjate/se ne strinjate z naslednjimi trditvami.		1 = sploh se ne strinjam; 5 = popolnoma se strinjam; X = ne vem
Iniciativa MPP v naši organizaciji je bila uspešna.		1 2 3 4 5 X
Naši cilji glede MPP so bili doseženi.		1 2 3 4 5 X
MPP prispeva k izvajanju strategije naše organizacije.		1 2 3 4 5 X
MPP igra pomembno vlogo v vsakodnevnih delovnih praksah v naši organizaciji.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je učinkovitost procesov v naši organizaciji izboljšala.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je uspešnost procesov v naši organizaciji izboljšala.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je agilnost (prilagodljivost) procesov v naši organizaciji izboljšala.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je povečalo zadovoljstvo naših strank.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je povečala kvaliteta naših izdelkov/storitev.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je skrajšal čas, potreben za proizvodnjo izdelkov / izvajanje naših storitev.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je skrajšal čas, potreben za izvajanje ostalih ključnih procesov.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je skrajšal čas, potreben za planiranje in doseganje ciljev.		1 2 3 4 5 X
Odkar smo privzeli MPP, se je skrajšal čas, potreben za analize in izvajanje korektivnih ukrepov.		1 2 3 4 5 X
Odkar smo privzeli MPP, potrebujemo manj časa za uvedbo potrebnih internih sprememb.		1 2 3 4 5 X
Odkar smo privzeli MPP, potrebujemo manj časa za uvedbo potrebnih eksternih sprememb.		1 2 3 4 5 X
Odkar smo privzeli MPP, so se zmanjšali stroški izvajanja naših storitev.		1 2 3 4 5 X
Odkar smo privzeli MPP, so se zmanjšali stroški izvajanja ostalih ključnih procesov.		1 2 3 4 5 X
Odkar smo privzeli MPP, so se zmanjšali stroški planiranja in doseganja ciljev.		1 2 3 4 5 X
Odkar smo privzeli MPP, so se zmanjšali stroški analize in izvajanja korektivnih ukrepov.		1 2 3 4 5 X

Najlepša hvala za Vaše sodelovanje.

Appendix E: Questionnaire on Organizational culture (OCAI) for case studies (in Slovenian)

VPRAŠALNIK O ORGANIZACIJSKI KULTURI

Pred vami je vprašalnik o organizacijski kulturi. Namen vprašalnika je oceniti šest ključnih dimenzij organizacijske kulture, ki bodo dale sliko, kako deluje vaša organizacija in katere so vrednote, ki jo označujejo.

Vprašalnik je sestavljen iz šestih vprašanj. Vsako vprašanje ima štiri trditve. **Razdelite 100 točk med te 4 trditve glede na to, koliko je vsaka trditev podobna stanju v vaši organizaciji. Dajte višje število točk za trditev, ki je najbolj podobna stanju v vaši organizaciji.**

Na primer, če menite, da je pri prvem vprašanju trditev A zelo podobna stanju v vaši organizaciji, trditvi B in C nekoliko podobni in trditev D komaj kaj podobna stanju v vaši organizaciji, bi točke morda razdelili tako, da bi trditvi A dali 55 točk, trditvama B in C 20 točk ter 5 točk trditvi D. Bodite pozorni, da bo vsota točk pri vsakem vprašanju enaka 100.

I	Prevladujoče značilnosti	
Naša organizacija je zelo oseben kraj. Je kot razširjena družina. Zaposleni med sabo delijo tudi osebne stvari.		
Naša organizacija je zelo dinamično, podjetniško mesto. Zaposleni so se pripravljeni izpostavljati in prevzeti določeno tveganje.		
Naša organizacija je zelo usmerjena k doseganju rezultatov. Najpomembnejša skrb je, da je delo opravljeno. Zaposleni so zelo tekmovalni in usmerjeni k doseganju ciljev.		
Naša organizacija je zelo nadzorovan in strukturiran kraj. Delo ljudi v glavnem usmerjajo formalni postopki.		
Vsota točk		100

II	Vodstvo organizacije	
Zaposleni v naši organizaciji vodstvo vidijo v vlogi mentorjev, ki jih pri delu spodbujajo in vzgajajo.		
Zaposleni v naši organizaciji vodstvo vidijo v vlogi podjetnikov in inovatorjev, ki sprejemajo tveganja.		
Zaposleni v naši organizaciji vodstvo vidijo kot agresivne in osredotočene na rezultate, ki ne prenašajo nesmiselnosti.		
Zaposleni v naši organizaciji vodstvo vidijo v vlogi usklajevalcev in organizatorjev, ki skrbijo za nemoteno učinkovitost.		
Vsota točk		100

III	Management zaposlenih	
Za stil managementa v naši organizaciji je značilno timsko delo, soglasnost in sodelovanje.		
Za stil managementa v naši organizaciji je značilno individualno sprejemanje tveganj, inovativnost, svoboda in edinstvenost.		
Za stil managementa v naši organizaciji je značilna močna tekmovalnost, visoka zahtevnost oz. pričakovanja in priznavanje dosežkov.		
Za stil managementa v naši organizaciji je značilna varnost zaposlitve, udobje, predvidljivost in stabilnost odnosov.		
Vsota točk		100

IV	Organizacijske vrednote	
Glavni vrednoti, ki povezujeta našo organizacijo, sta zvestoba in medsebojno zaupanje. Pripadnost k organizaciji je visoka.		
Našo oganizacijo povezuje zavezanost k inovacijam in razvoju. Glavni poudarek je na utiranju novih smernic.		
V naši organizaciji je poudarek na dosežkih in realizaciji ciljev. Agresivnost na trgu in zmagovanje sta glavni temi znotraj organizacije.		
Našo organizacijo povezujejo formalna pravila in postopki. Pomembno je vzdrževanje nemotenega delovanja organizacije.		
Vsota točk		100

V	Strateška usmerjenost	
Naša organizacija je usmerjena v razvoj človeških virov. Prisotna je visoka stopnja medsebojnega zaupanja, odprtost in sodelovanje.		
Naša organizacija je usmerjena k pridobivanju novih resursov in postavljanju novih izzivov. Ceni se poskušanje novih stvari in iskanje priložnosti.		
Poudarek v naši organizaciji je na konkurenčnih dejanjih in dosežkih. Pomembno je doseganje ciljev in zmagovanje na trgu.		
Poudarek v naši organizaciji je na trajnosti in stabilnosti. Pomembni so učinkovitost, nadzor in nemoteno poslovanje.		
Vsota točk		100

VI	Merila uspešnosti	
Naša organizacija meri uspeh glede na stopnjo razvoja človeških virov, timskega dela, predanosti zaposlenih ter skrbi za zaposlene.		
Naša organizacija meri uspeh glede na stopnjo edinstvenih in novih izdelkov/ storitev. Organizacija je vodilna na področju izdelkov/storitev in inovacij.		
Naša organizacija meri uspeh glede na prednost pred konkurenco na trgu. Tržna konkurenčnost je za organizacijo ključnega pomena.		
Naša organizacija meri uspeh glede na učinkovitost. Ključnega pomena so zanesljiva dostava, nemotena proizvodnja in poslovanje z nizkimi stroški.		
Vsota točk		100

INDIVIDUALNE ZNAČILNOSTI	
** Iniciativa MPP je organizacijski projekt/program, katerega namen je povečati učinkovitost in uspešnost poslovnih procesov, npr. prenova poslovnih procesov, »lean management«, »total quality management«, 6 sigma, itd.*	
	Znanje o managementu poslovnih procesov (MPP)
Katera trditev najbolje opisuje vaše znanje o managementu poslovnih procesov (MPP)?	☐ Nimam znanja o MPP. ☐ Samo teoretično znanje, pridobljeno npr. preko usposabljanja ali branja knjige o MPP. ☐ Samo praktično znanje, npr. praktične izkušnje s sodelovanjem pri iniciativi* MPP. ☐ Teoretično in praktično znanje.
Kako ocenjujete svoje znanje s področja MPP?	☐ Odlično ☐ Dobro ☐ Slabo ☐ Ne poznam
	Izkušnje z MPP
Ali ste že kdaj aktivno sodelovali pri iniciativi* MPP?	☐ Da. ☐ Ne.
	Delovno mesto
Na katerem organizacijski enoti ste zaposleni?	
V katerem oddelku ste zaposleni?	

Najlepša hvala za Vaše sodelovanje.

Appendix F: Summary in Slovenian language/Daljši povzetek disertacije v slovenskem jeziku

POVZETEK V SLOVENSKEM JEZIKU

1 OPIS ZNANSTVENEGA PODROČJA

Poslovni procesi so temeljni del vsake organizacije. Ključnega pomena je torej, da organizacije optimizirajo in učinkovito upravljajo svoje poslovne procese, kar jim omogoča ohranjanje konkurenčne prednosti in uspešno poslovanje v visoko konkurenčnem okolju. Management poslovnih procesov (MPP) je tako v zadnjih letih za mnoge organizacije ena izmed najpomembnejših tem (Jeston & Nelis, 2006; Neubauer, 2009). MPP je koncept, ki lahko, v kolikor je njegovo privzemanje uspešno, prinese pomembne koristi za organizacijo, kot na primer boljše razumevanje poslovnih procesov, večji nadzor, boljše rezultate poslovanja (Škrinjar, Bosilj-Vukšić & Indihar Štemberger, 2008) in prilagodljivost spreminjajočim se zahtevam na trgu (Neubauer, 2009).

MPP je opredeljen kot pristop k upravljanju organizacije, za katerega je značilen procesni vidik (de Bruin & Doebeli, 2010). Za njegovo uspešno privzemanje je treba upoštevati številne elemente (Rosemann & vom Brocke, 2010), kot so strategija in izvedba, uporaba sodobnih orodij in tehnik, vključenost ljudi ter osredotočenost na učinkovito izpolnjevanje potreb strank (Zairi, 1997). Toda privzemanje MPP, to je *uvajanje in uporaba konceptov MPP v organizacijah* (Reijers, van Wijk, Mutschler & Leurs, 2010), je zelo kompleksen in dolgotrajen proces, ki zahteva veliko truda, časa, sredstev in discipline. Posledično so številni projekti privzemanja MPP v praksi neuspešni (Trkman, 2010), organizacije pa imajo težave z uresničevanjem in utemeljevanjem koristi MPP-ja (Grisdale & Seymour, 2011).

Zaradi mešanih ugotovitev glede uspešnosti organizacij s privzemanjem MPP, se zastavlja vprašanje o tem, ali se organizacije dejansko ukvarjajo s praksami MPP-ja in kateri dejavniki prispevajo k uspešnosti privzemanja MPP. Glede na to, da je MPP multidisciplinarni koncept, je njegov uspeh odvisen od različnih dejavnikov (Bandara, Alibabaei & Aghdasi, 2009). Še zlasti se v literaturi pogosto poudarja pomembnost organizacijske kulture, ki je ugodna za MPP (npr. vom Brocke & Sinnl, 2011; Schmiedel, vom Brocke & Recker, 2013; Kohlbacher, Gruenwald & Kreuzer, 2011). Schmiedel et al. (2013) opredeljujejo kulturo MPP kot "vidik organizacijske kulture, ki je sestavljena iz določenega niza vrednot, ki neposredno podpirajo cilje MPP, to so uspešni in učinkoviti procesi". Tako je mogoče trditi, da je uspešnost privzemanja MPP odvisna od prevladujoče organizacijske kulture (Alibabaei, Aghdasi, Zarei & Stewart, 2010; Bandara et al., 2009; vom Brocke & Schmiedel, 2011).

Organizacijsko kulturo sestavljajo vrednote, prepričanja, odnosi in vedenja (Hofstede, 1993; Schein, 1996). Organizacijska kultura je zbirka neformalnih in nenapisanih pravil, ki prežemajo organizacijo in zaposlenim dajejo občutek identitete (Cameron & Quinn, 2006). Preučevanje organizacijske kulture je izjemno pomembno tako za akademike kot tudi za

praktike, še posebej na področju managementa in informacijskih sistemov (Reiter, Stewart & Bruce, 2010), ter ima ključno vlogo pri uvajanju sprememb v poslovnih procesih (Škerlavaj, Indihar Štemberger, Škrinjar & Dimovski, 2007; Clemons, Thatcher & Row, 1995; Guimaraes, 1997; Terziovski, Fitzpatrick & O'Neil, 2003).

Raziskovalci s področja MPP se strinjajo, da se mora organizacijska kultura ujemati z načeli MPP (npr. vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011) in da je njene značilnosti treba obravnavati kot predpogoj za uspešnost projektov MPP (Bandara et al., 2009). Mnogi avtorji se nanašajo tudi na potrebo po spremembi organizacijske kulture, da bi bila v skladu z načeli MPP (vom Brocke & Sinnl, 2011; Tumbas & Schmiedel, 2013). Toda organizacijske kulture ni mogoče spremeniti v kratkem času (Grugulis & Wilkinson, 2002) in njeno spreminjanje je zelo težko (Lee & Dale, 1998). Namesto, da bi poskušali spremeniti organizacijsko kulturo, bi morali prilagoditi pristop k privzemanju MPP, da bo v skladu z obstoječo organizacijsko kulturo in cilji organizacije. "Pristop k privzemanju MPP se mora ujemati s kulturo organizacije" (Armistead, Prichard & Machin, 1999). Managerji se morajo zavedati organizacijske kulture in poskrbeti za to, da so kulturne značilnosti združljive s projektom MPP (Alibabaei et al., 2010).

Na podlagi obsežnega pregleda literature vom Brocke in Sinnl (2011) ugotavljata, da je tema kulture v povezavi z MPP še vedno precej neraziskana, le nekaj člankov namreč obravnava oz. raziskuje vlogo kulture na področju MPP. Nadaljnje raziskave na to temo so nujne za pridobitev boljšega razumevanja organizacijske kulture in njene vloge pri uspešnosti privzemanja MPP. Disertacija obravnava pristope k privzemanju MPP v pogojih različnih organizacijskih kultur.

2 PROBLEMATIKA TEME DISERTACIJE

Poslovni procesi so temeljni del vsake organizacije, njihovo upravljanje pa je ena izmed najpomembnejših prioritet številnih organizacij. Vendar pa so mnoge organizacije neuspešne pri privzemanju MPP (Trkman, 2010). Zakaj nekateri projekti uspejo in drugi ne, je pomembno raziskovalno področje (Grisdale & Seymour, 2011; Alibabaei et al., 2010; Bandara et al., 2009).

Številne raziskave so pokazale, da ima organizacijska kultura pomembno vlogo pri uspešnosti privzemanja MPP (npr. Rosemann & de Bruin, 2005b; Rosemann & vom Brocke, 2010; vom Brocke & Sinnl, 2011; Alibabaei et al., 2010), ter da predstavlja tako vir uspeha kot tudi vir neuspeha (Melenovsky & Sinur, 2006; Bandara et al., 2009; Ravesteyn & Versendaal, 2007). Značilnosti organizacijske kulture lahko zagotovijo bodisi primerne pogoje ali pa predstavljajo ovire za uspešno privzemanje MPP (Bandara et al., 2009). Prav tako so nekatere vrednote prepoznane kot vrednote, ki podpirajo doseganje ciljev MPP, spet druge vrednote pa jih zavirajo (vom Brocke & Sinnl, 2011).

Organizacijska kultura ima pomemben vpliv na uspešnost privzemanja MPP (de Bruin, 2009), vendar pa je tema kulture v povezavi z MPP še vedno premalo raziskana (vom Brocke &

Sinnl, 2011). V empirični literaturi obstaja vrzel glede povezave med organizacijsko kulturo in privzemanjem MPP. Prav tako na raziskovalnem področju manjka jasno razumevanje tega, kaj pomeni privzemanje MPP in kako je uspešnost privzemanja MPP mogoče izmeriti. Koncepta "privzemanje MPP" in "uspešnost privzemanja MPP" v literaturi nista jasno definirana, zato ju lahko razumemo na različne načine. Zaradi zelo splošne opredelitve uspešnosti MPP v literaturi, kot je na primer *stalno izpolnjevanje vnaprej določenih ciljev* (Trkman, 2010) ter *zadovoljivo doseganje predvidenih koristi MPP* (Bandara et al., 2009), je lahko merjenje uspešnosti privzemanja MPP pravi izziv.

Medtem ko obstaja soglasje, da je organizacijska kultura ključnega pomena za kakršno koli uvajanje sprememb (Rosemann & vom Brocke, 2010; Harmon, 2010; Spanyi, 2003; vom Brocke & Schmiedel, 2011), pa takšno soglasje ne obstaja glede tega, kakšen tip organizacijske kulture najbolje podpira privzemanje MPP. Po navedbah Prajogo in McDermott-a (2005), ki sta raziskovala razmerja med različnimi tipi organizacijske kulture in nekaterimi praksami celovitega obvladovanja kakovosti (TQM), različni tipi kulture podpirajo različne podskupine praks TQM. Ugotovitve iz literature tudi kažejo, da v organizaciji lahko harmonično nastopajo različni, celo nasprotujoči si tipi kulture (Škerlavaj et al., 2007). Schmiedel et al. (2013) ugotavljajo, da "medtem ko je obstoječa organizacijska kultura lahko primarno določena z enim izmed štirih kvadrantov modela konkurenčnih vrednot (CVF); so ostali trije lahko prav tako prisotni in dopolnjujejo prevladujočo kulturo". Te ugotovitve odpirajo vprašanje katera kombinacija tipov kulture je najprimernejša za privzemanje MPP.

Privzemanje MPP zaradi svojega obsega največkrat pomeni obsežne organizacijske spremembe. V kolikor je privzemanje MPP v nasprotju z obstoječo organizacijsko kulturo, bo v organizaciji prišlo do zavračanja sprememb (Alibabaei et al, 2010). Obstajati mora torej ujemanje med MPP in organizacijsko kulturo (vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011). Armistead in Machin (1997) poudarjata, da se mora pristop k privzemanju MPP ujemati s kulturo organizacije, ter da je kultura tista, ki določa ustrezen začetni pristop k privzemanju MPP. Prilagoditi je torej treba pristop k privzemanju MPP, da bo v skladu z obstoječo organizacijsko kulturo in cilji organizacije. Pomembno vprašanje na tem mestu je, kako pristopiti k privzemanju MPP v organizaciji glede na njeno organizacijsko kulturo. Zavedanje o pomembnosti organizacijske kulture za uspešnost MPP je bistvenega pomena (vom Brocke & Sinnl, 2011).

3 NAMEN IN CILJI

Namen disertacije je izboljšati razumevanje odnosa med privzemanjem MPP in različnimi tipi organizacijske kulture in razviti teoretični okvir, ki prikazuje ta odnos. Poleg tega je namen tudi raziskati, kako je uspešnost privzemanja MPP povezana z organizacijsko kulturo oz. različnimi tipi organizacijske kulture. Zlasti, kako se uspešnost privzemanja MPP (merjena z dvema približkoma: modelom zrelosti procesne usmerjenosti, ki sta ga razvila McCormack in Johnson (2001) in modelom zrelosti MPP, ki ga je razvila Rummler-Brache Skupina (2004)) razlikuje glede na različne tipe organizacijske kulture (to je štiri tipe organizacijske kulture

glede na model OCAI (Organizational Culture Assessment Instrument), ki sta ga razvila Cameron in Quinn (2006): Klanska, Razvojna, Tržna in Hierarhična kultura) ter kateri pristop k privzemanju MPP je primeren glede na obstoječo organizacijsko kulturo v organizaciji.

Za uresničitev namena, ima disertacija naslednje cilje:

- jasno opredeliti ključne koncepte, to so privzemanje MPP, uspešnost privzemanja MPP in organizacijska kultura;
- narediti pregled glavnih ugotovitev raziskav s področja privzemanja MPP v povezavi z različnimi tipi organizacijske kulture, in sicer na podlagi strukturiranega pregleda literature;
- razviti konceptualni okvir, ki prikazuje odnos med organizacijsko kulturo, uspešnostjo privzemanja MPP in pristopom k privzemanju MPP, na osnovi strukturiranega pregleda literature;
- raziskati povezavo med štirimi tipi kulture po OCAI (Klanska, Razvojna, Tržna in Hierarhična kultura) in uspešnostjo privzemanja MPP (z uporabo modela zrelosti procesne usmerjenosti in modela zrelosti MPP) na podlagi podatkov, pridobljenih z anketnim vprašalnikom;
- ugotoviti, kateri tipi organizacijske kulture so ugodnejši in kateri so manj ugodni za privzemanje MPP, na podlagi podatkov, zbranih z analizo ankete; in
- ugotoviti, kako lahko organizacije pristopijo k privzemanju MPP glede na določen tip organizacijske kulture oz. določeno kombinacijo tipov organizacijske kulture, na osnovi raziskovalnih študij primerov.

4 RAZISKOVALNA VPRAŠANJA

Disertacija obravnava tri raziskovalna vprašanja. Prvo raziskovalno vprašanje se nanaša na tretje poglavje disertacije, ki predstavlja strukturiran pregled literature, ki proučuje razmerje med privzemanjem MPP in različnimi tipi organizacijske kulture. Pregled literature zajema glavne ugotovitve glede privzemanja MPP v povezavi z organizacijsko kulturo, zlasti v povezavi z različnimi tipi organizacijske kulture, kot sta jih opredelila Cameron in Quinn (2006). Raziskovalno vprašanje, na katerega želim odgovoriti pri tej raziskavi je – *RV1: Kakšno je trenutno stanje raziskav na temo privzemanja MPP v povezavi z organizacijsko kulturo?*

Pregledu literature sledi empirična raziskava povezave med organizacijsko kulturo in uspešnostjo privzemanja MPP, ki je predstavljena v četrtem poglavju disertacije. Namen tega poglavja je empirično raziskati, ali so organizacije z različnimi tipi organizacijske kulture različno uspešne s privzemanjem MPP ter ugotoviti, kateri tipi organizacijske kulture so ugodnejši in kateri so manj ugodni za privzemanje MPP (katere organizacije, glede na njihov dominanten tip kulture, so bolj oziroma manj uspešne s privzemanjem MPP). Drugo raziskovalno vprašanje disertacije je torej – *RV2: Kako se uspešnost privzemanja MPP razlikuje glede na različne tipe organizacijske kulture?*

Peto in šesto poglavje disertacije predstavljata dve študiji primerov, kateri obravnavata pristop k privzemanju MPP v pogojih določenih tipov organizacijske kulture. Študiji primerov sta bili izvedeni v organizacijah s Hierarhično kulturo in Hierarhično-Tržno kulturo, saj je bila Hierarhična kultura v anketni raziskavi identificirana kot manj ugodna za privzemanje MPP. Raziskavi sta osnovani na ugotovitvah prejšnjih študij, ki opažajo, da mora biti pristop k privzemanju MPP v skladu s kulturo organizacije, ter da kultura določa ustrezen začetni pristop k privzemanju MPP (Armistead & Machin, 1997). Ker je spreminjanje organizacijske kulture zelo težko (Lee & Dale, 1998; Alibabaei et al., 2010) in je tudi ni mogoče spremeniti v kratkem času (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004), bi morali pristop k privzemanju MPP prilagoditi obstoječi organizacijski kulturi. Raziskovalno vprašanje, na katerega odgovarjata študiji primerov, je torej – *RV3: Kateri pristop k privzemanju MPP bi lahko bil primeren v organizacijah z določenim tipom organizacijske kulture ali z določeno kombinacijo tipov organizacijske kulture?*

5 OPIS ZNANSTVENE METODE

Disertacija je strukturirana kot zbirka povezanih člankov. Začne se s pregledom obstoječe literature, ki da osnovo za raziskovanje privzemanja MPP v povezavi z različnimi organizacijskimi kulturami. Nato je bila izvedena kvantitativna empirična analiza na podlagi podatkov, zbranih z anketno raziskavo, kjer so bile preverjene postavljene hipoteze. Temu je sledila raziskava, ki je vključevala dve študiji primerov, ki sta obravnavali pristope k privzemanju MPP v okviru različnih organizacijskih kultur. Vse faze raziskovanja so pomagale odgovoriti na različna raziskovalna vprašanja in pripomogle k doseganju ciljev disertacije.

Najprej je bil narejen strukturiran pregled literature, ki je dal vpogled v odnos med privzemanjem MPP in organizacijsko kulturo, oz. bolj natančno različnimi tipi organizacijske kulture, kot sta jih definirala Cameron in Quinn (2006). Za zagotovitev celovitega pregleda ustrezne literature, so obravnavani članki v znanstvenih in strokovnih revijah, izvzemajoč članke iz drugih virov (npr. konferenčnih zbornikov ali sive literature). Na podlagi pregleda literature so definirani ključni koncepti (privzemanje MPP, uspešnost privzemanja MPP in organizacijska kultura) in predlagan konceptualni model, ki povezuje organizacijsko kulturo z uspešnostjo privzemanja MPP preko pristopa k privzemanju MPP. Ta okvir je nato uporabljen kot izhodišče za nadaljnje raziskave na to temo.

Nadalje je bila opravljena empirična raziskava na zasnovi anketnega raziskovanja, da bi raziskala povezave med tipi organizacijske kulture in uspešnostjo privzemanja MPP. Anketni vprašalnik je zajemal vprašanja za merjenje organizacijske kulture, vprašanja za merjenje uspešnosti privzemanja MPP in vprašanja za ocenjevanje znanja in zanimanja anketirancev za MPP. Za merjenje organizacijske kulture je bil uporabljen prilagojen vprašalnik OCAI (Organizational Culture Assessment Instrument), ki sta ga razvila Cameron in Quinn in velja za potrjeno raziskovalno metodo za preučevanje organizacijske kulture (Cameron & Quinn, 2006). OCAI temelji na modelu konkurenčnih vrednot (Competing Values Framework), ki je

sestavljen iz štirih konkurenčnih vrednot, ki odgovarjajo štirim tipom organizacijske kulture (Klanska kultura, Razvojna kultura, Tržna kultura in Hierarhična kultura). Vsaka organizacija ima svojo lastno mešanico teh štirih tipov organizacijske kulture (Cameron & Quinn, 2006).

Zaradi pomanjkanja merskega instrumenta sta bila za merjenje uspešnosti privzemanja MPP uporabljena dva približka. Takšen pristop je v skladu s študijami avtorjev Škrinjar in Trkman (2013), Thompson, Seymour in O'Donovan (2009) in Dabaghkashani, Hajiheydari in Haghighinasab (2012), ki so prav tako uporabili približke za merjenje uspešnosti MPP. Za namen disertacije sta izbrana približka za merjenje uspešnosti privzemanja MPP *Model zrelosti procesne usmerjenosti (Business Process Orientation Maturity model - BPO),* ki sta ga razvila McCormack in Johnson (2001), ter *Model zrelosti MPP (Process Performance Index - PPI),* ki ga je razvila Rummler-Brache Skupina (2004). Oba sta potrjena raziskovalna instrumenta, ki sta že bila uporabljena v predhodnih študijah. Škrinjar in Trkman (2013) trdita, da privzemanje MPP neposredno vpliva na procesno usmerjenost (BPO). Ko organizacija privzame MPP, postane bolj procesno usmerjena, zato se BPO lahko uporablja za merjenje uspešnosti MPP (Škrinjar & Trkman, 2013). Poleg BPO je bil uporabljan tudi PPI, ki služi kot celostna mera procesnega managementa v organizaciji in meri kako dobro organizacija upravlja svoje ključne poslovne procese (Rummler-Brache Group, 2004). V kolikor je organizacija uspešna s privzemanjem MPP, ima visoko stopnjo BPO in PPI. Povedano drugače, višja kot je stopnja BPO in PPI, bolj uspešno je privzemanje MPP. Anketni vprašalnik je bil tudi predhodno testiran s pomočjo več profesorjev in praktikov s področja, da se je zagotovila razumljivost vprašalnika.

Anketa je bila izvedena v javnih in privatnih organizacijah z več kot 50 zaposlenimi v Sloveniji. Srednja in velika podjetja so bila izbrana zato, ker so prakse MPP malih podjetij največkrat relativno nezahtevne in zelo spremenljive (Yong & Pheng, 2008). Seznam vseh organizacij, ki so izpolnjevale zahtevana merila, je bil sestavljen iz spletnega poslovnega imenika *bizi.si*. Organizacije, ki so bile v stečaju, so bile izločene iz seznama anketirancev, tako da je končno mailing listo sestavljalo 2180 organizacij. Pripravljena je bila tako spletna anketa kot tudi tiskani izvodi vprašalnika v slovenščini. Tiskani izvodi so bili po pošti poslani na vseh 2180 organizacij, skupaj s spremnim pismom in manjšo kuverto za povratno pošto. V spremnem pismu je bila navedena povezava na spletno anketo, pojasnjen namen raziskave ter kdo naj bi bili ciljni anketiranci, kot tudi predviden čas, potreben za izpolnjevanje ankete (20 minut). Poleg tega je bila vsem anketirancem zagotovljena popolna anonimnost.

Vprašalnik je bil naslovljen na vrhnji management oziroma (kjer je bilo možno) lastnike procesov, ki bi morali imeti najboljši pregled nad privzemanjem MPP v svoji organizaciji. Zbiranje podatkov je trajalo od začetka marca do konca maja 2013. Od 2180 poslanih vprašalnikov je bilo skupno prejetih 159 odgovorov (47 preko spletne ankete in 112 preko povratne pošte), kar se kaže v 7,3 % stopnji odziva. Podatki iz anketne raziskave so bili analizirani z uporabo programa IBM SPSS Statistics 20.

Za vsako organizacijo je bil najprej izračunan rezultat, ki se nanaša na organizacijsko kulturo. Nato so bili podatki analizirani na dva različna načina: (1) pristop primerjave skupin in (2) analiza korelacij. Medtem ko je pristop primerjave skupin priljubljen (Aier, 2012) in je bil uporabljen v številnih študijah (npr. Bradley, Pridmore & Byrd, 2006), obstaja nekaj kritik glede dodelitve organizacije eni sami kulturni skupini na podlagi njene dominantne kulture. Ta pristop namreč zmanjšuje razpoložljive podatke in upošteva samo dominanten tip kulture, ter s tem izvzema, da ima organizacija običajno nekaj vrednosti v vseh štirih vrstah kulture (Aier, 2012). Vendar pa je pristop primerjave skupin uporaben za ugotavljanje, katere organizacije so bolj oziroma manj uspešne s privzemanjem MPP glede na njihov prevladujoči tip kulture.

Pri pristopu primerjave skupin sem organizacije razvrstila v skupine glede na njihov prevladujoči tip organizacijske kulture ter iskala statistično značilne razlike med njimi. Za analizo razlik v uspešnosti privzemanja MPP med štirimi skupinami kultur je bil uporabljen Kruskal-Wallis test. Nadalje so bili podatki analizirani z uporabo korelacij. Pri tej analizi sem sledila Aier-ju (2012) in merila vsako od štirih alternativ (t.j. vsakega od štirih tipov kulture) z ločenimi spremenljivkami, namesto da bi nabor podatkov razdelila v štiri kulturne skupine. Za testiranje korelacij med štirimi tipi kulture in uspešnostjo privzemanja MPP je bil izračunan Pearsonov koeficient korelacije. Po raziskavi v Soveniji, je bila empirična raziskava ponovljena na Hrvaškem.

Anketni raziskavi je sledila raziskava, ki je vključevala dve raziskovalni študiji primerov. Ker je bila Hierarhična kultura v anketni raziskavi identificirana kot najmanj ugodna za privzemanje MPP, sta študiji primerov obravnavali pristope k privzemanju MPP v Hierarhični in Hierarhično-Tržni kulturi. Zbrani so bili tako kvalitativni kot kvantitativni podatki. Primarni viri zbiranja podatkov so bili poglobljeni intervjuji, pregled projektne dokumentacije o iniciativi MPP (npr. projektna poročila, modeli procesov, procesna dokumentacija) ter spletni anketi o organizacijski kulturi (OCAI) in uspešnosti privzemanja MPP (BPO in PPI). Vprašanja za intervjuje so bila vnaprej pripravljena, tako da so vsi intervjuji sledili enakemu protokolu. Med posameznim intervjujem so bila dovoljena tudi dodatna vprašanja za razjasnitev posameznih odgovorov. Intervjuji so potekali septembra in oktobra 2013 in so bili izvedeni v slovenščini. Spletna anketa o organizacijski kulturi je bila prevedena v slovenščino in po e-pošti poslana naključno izbranim zaposlenim na različnih ravneh v obeh preučevanih organizacijah, vključno z direktorji informatike, lastniki procesov, vodjami oddelkov, managerji in drugimi zaposlenimi. Vsem anketirancem je bila zagotovljena popolna anonimnost. Poleg tega je bila pripravljena tudi spletna anketa o uspešnosti privzemanja MPP, ki je bila naslovljena na vodji obeh iniciativ MPP, ki bi morala imeti najboljši pregled nad privzemanjem MPP v svojih organizacijah. Podatki iz spletnih anket so bili zbrani v septembru 2013.

Intervjuvanci so bili izbrani na podlagi njihove vloge v organizaciji in njihove vloge v iniciativi MPP. Vsi intervjuji so bili snemani in nato prepisani (transkripcija). Podatki iz intervjujev in projektne dokumentacije so bili kodirani ročno, s pomočjo orodja za upravljanje

kvalitativnih podatkov Atlas.ti. Proces kodiranja je bil izveden v dveh korakih. Začela sem z osnovnim kodiranjem za razločevanje splošnih tem, temu pa je sledilo bolj poglobljeno interpretativno kodiranje za razlago bolj specifičnih trendov in vzorcev (Hay, 2005). Podatki, pridobljeni iz spletnih anket, so bili analizirani v skladu z uporabljenimi modeli s pomočjo orodja MS Excel.

6 STRUKTURA DISERTACIJE

Disertacija je strukturirana kot zbirka štirih člankov, ki so med seboj logično povezani in se dopolnjujejo. Vsak članek posebej je samostojen prispevek, vseeno pa je jasno razvidna rdeča nit, ki jih povezuje. Vsako poglavje ima zato svoj uvod, teoretično ozadje, metodologijo, rezultate, diskusijo in zaključek.

Disertacija se začne z uvodom, kjer so najprej na kratko predstavljeni znanstveno področje, problematika teme disertacije, namen in cilji, raziskovalna vprašanja, opis raziskovalnih metod in nameravan prispevek k znanosti. Uvodu sledijo definicije ključnih konceptov, ki se pojavljajo v disertaciji.

Tretje poglavje zajema obsežen pregled literature, ki proučuje razmerje med privzemanjem MPP in organizacijsko kulturo, zlasti različnimi tipi organizacijske kulture, kot sta jih opredelila Cameron in Quinn (2006). Na podlagi strukturiranega pregleda literature je predlagan konceptualni model, ki povezuje organizacijsko kulturo z uspešnostjo privzemanja MPP preko pristopa k privzemanju MPP. Ta okvir nato služi kot izhodišče za nadaljnje raziskave na to temo.

Četrto poglavje predstavlja empirično analizo povezave med organizacijsko kulturo in uspešnostjo privzemanja MPP na podlagi podatkov, zbranih z anketno raziskavo. Namen tega poglavja je empirično raziskati, ali so organizacije z različnimi tipi organizacijske kulture različno uspešne s privzemanjem MPP ter ugotoviti, kateri tipi organizacijske kulture so ugodnejši in kateri so manj ugodni za privzemanje MPP (katere organizacije, glede na njihov dominanten tip kulture, so bolj oziroma manj uspešne s privzemanjem MPP).

Peto in šesto poglavje vsebujeta dve študiji primerov o pristopih k privzemanju MPP v pogojih določenih tipov organizacijske kulture, ki sta bila v anketni raziskavi identificirana kot manj ugodna za privzemanje MPP (Hierarhična kultura in Hierarhično-Tržna kultura). Namen teh študij primerov je ugotoviti, kakšen pristop k privzemanju MPP bi lahko bil primeren glede na obstoječo organizacijsko kulturo.

Sedmo poglavje predstavlja skupno diskusijo, ki povzema glavne ugotovitve in prispevke k znanosti, skupaj z omejitvami disertacije in možnostmi za nadaljnje raziskave. Temu sledijo še zaključek (Poglavje 8), literatura (Poglavje 9) in priloge (Poglavje 10).

7 GLAVNE UGOTOVITVE IN REZULTATI DISERTACIJE

Skozi celotno disertacijo so bili uspešno doseženi zastavljeni cilji in namen disertacije. V drugem poglavju so jasno opredeljeni ključni koncepti, to so privzemanje MPP, uspešnost privzemanja MPP in organizacijska kultura. Na podlagi literature in natančnega pregleda več modelov življenjskega cikla MPP, je predstavljen okvir privzemanja MPP in definirane aktivnosti, ki jih zajema. Uspešnost privzemanja MPP je opredeljena tako, da jo je mogoče kvantitativno izmeriti. Model zrelosti procesne usmerjenosti *(Business Process Orientation Maturity model - BPO*), ki sta ga razvila McCormack in Johnson (2001), ter Model zrelosti MPP *(Process Performance Index - PPI),* ki ga je razvila Rummler-Brache Skupina (2004), sta uporabljena kot približka za merjenje uspešnosti privzemanja MPP. Organizacijska kultura je definirana kot »vzorec temeljnih domnev, ki jih je določena skupina iznašla, odkrila ali razvila, ko se je učila spopadati s problemi eksternega prilagajanja in internega povezovanja, in ki se je pokazal za dovolj dobrega, da je postal veljaven, ter so se ga novi člani priučili kot pravilen način dojemanja, mišljenja in občutenja teh problemov« (Schein, 1990).

V tretjem poglavju je zajet strukturiran pregled literature, ki proučuje razmerje med privzemanjem MPP in različnimi tipi organizacijske kulture. Narejen je pregled glavnih ugotovitev raziskav s področja privzemanja MPP v povezavi z organizacijsko kulturo, zlasti različnimi tipi organizacijske kulture, kot sta jih opredelila Cameron in Quinn (2006). Ugotavljam, da le malo raziskav obravnava povezavo med različnimi tipi organizacijske kulture in privzemanjem MPP. Rezultati teh raziskav kažejo, da obstajajo pomembne razlike v tem, kako različni tipi organizacijske kulture vplivajo na privzemanje MPP. Vendar pa se ugotovitve raziskav razlikujejo glede tega, kakšen vpliv ima vsak posamezen tip organizacijske kulture. V empirični literaturi obstaja vrzel glede direktnega preučevanja povezave med različnimi tipi organizacijske kulture in procesno uspešnostjo. Na podlagi strukturiranega pregleda literature je predlagan konceptualni okvir, ki prikazuje odnos med organizacijsko kulturo, pristopom k privzemanju MPP in uspešnostjo privzemanja MPP. Ta okvir nato služi kot izhodišče za nadaljnje raziskave na to temo.

V četrtem poglavju je predstavljena empirična raziskava na zasnovi anketnega raziskovanja, ki proučuje povezavo med štirimi tipi organizacijske kulture po OCAI (Klanska, Razvojna, Tržna in Hierarhična kultura) in uspešnostjo privzemanja MPP (z uporabo modela zrelosti procesne usmerjenosti in modela zrelosti MPP). Anketa je bila izvedena med vrhnjimi managerji in (kjer je bilo možno) lastniki procesov v organizacijah z več kot 50 zaposlenimi v Sloveniji in na Hrvaškem. Na podlagi podatkov, zbranih z analizo ankete, je bilo ugotovljeno, kako se uspešnost privzemanja MPP razlikuje glede na različne tipe organizacijske kulture, ter kateri tip organizacijske kulture najbolje podpira privzemanje MPP. Rezultati raziskave so pokazali, da organizacijska kultura pomembno vpliva na uspešnost privzemanja MPP. Prav tako je ugotovljeno, kateri tipi organizacijske kulture so ugodnejši in kateri so manj ugodni za privzemanje MPP. Rezultati so pokazali, da najvišjo stopnjo uspešnosti privzemanja MPP dosegajo organizacije s Klansko kulturo, medtem ko imajo organizacije z najnižjo stopnjo uspešnosti privzemanja MPP Hierarhično kulturo. Organizacije z dominantno Klansko

kulturo so se pokazale za bolj uspešne s privzemanjem MPP od organizacij z dominantno Hierarhično kulturo. Poleg tega so rezultati pokazali, da je med Hierarhično kulturo in uspešnostjo privzemanja MPP statistično značilna negativna korelacija. Klanska kultura je torej identificirana kot najugodnejša in Hierarhična kultura kot manj ugodna za privzemanje MPP.

Po tem, ko je bila Hierarhična kultura v anketni raziskavi identificirana kot manj ugodna za privzemanje MPP, sta bili izvedeni dve študiji primerov o pristopih k privzemanju MPP v pogojih Hierarhične in Hierarhično-Tržne kulture. Študiji primerov sta predstavljeni v petem in šestem poglavju disertacije. Raziskavi sta osnovani na predpostavki, da mora biti pristop k privzemanju MPP v skladu s kulturo organizacije, ter da kultura določa ustrezen začetni pristop k privzemanju MPP (Armistead & Machin, 1997). Ker je spreminjanje organizacijske kulture zelo težko (Lee & Dale, 1998; Alibabaei et al., 2010) in je tudi ni mogoče spremeniti v kratkem času (Grugulis & Wilkinson, 2002; Armistead & Machin, 1997; Zhao, 2004), bi morali pristop k privzemanju MPP prilagoditi obstoječi organizacijski kulturi. Namen študij primerov je torej ugotoviti, kakšen pristop k privzemanju MPP bi lahko bil primeren glede na obstoječo organizacijsko kulturo. Zbiranje podatkov je potekalo preko poglobljenih intervjujev, pregleda projektne dokumentacije o iniciativi MPP ter spletnih anket o organizacijski kulturi in uspešnosti privzemanja MPP. Raziskava je pokazala, kateri posamezni ukrepi so se izkazali za uspešne v preučevanih organizacijah s Hierarhično in Hierarhično-Tržno kulturo. Ugotovitve so pokazale, da se je formalen, organiziran in nadzorovan pristop v obravnavanih organizacijah dobro obnesel. Izkazalo se je, da je treba dati poseben poudarek na zagotavljanje podpore vodstva, ustrezno planiranje in komunikacijo. Jasna opredelitev pristojnosti odločanja ter poudarek na prednostih MPP sta prav tako prispevala k uspešnemu privzemanju MPP v preučevanih organizacijah.

8 OCENA PRISPEVKA K ZNANOSTI

Disertacija ima tako teoretične kot tudi praktične prispevke. Prvič, zagotavlja jasno opredelitev pojmov "privzemanje MPP" in "uspešnost privzemanja MPP", ki je manjkala v obstoječi literaturi. Tako izboljša razumevanje o tem, kaj pomeni privzemanje MPP in kako lahko merimo njegovo uspešnost. Drugič, narejen je strukturiran pregled literature s področja privzemanja MPP v povezavi z organizacijsko kulturo, zlasti v povezavi z različnimi tipi organizacijske kulture, kot sta jih opredelila Cameron in Quinn (2006). To je prvi pregled literature, ki se osredotoča na različne tipe organizacijske kulture in njihov vpliv na privzemanje MPP, za razliko od predhodnih pregledov literature, ki so preučevali temo kulture v MPP (pregleda literature avtorjev vom Brocke & Sinnl, 2011 ter Grau & Moormann, 2014). Nadalje je predlagan konceptualni model, ki prikazuje odnos med organizacijsko kulturo in uspešnostjo privzemanja MPP in vključuje tudi pristop k privzemanju MPP ter tako nadgrajuje obstoječo literaturo. Ta okvir lahko služi kot izhodišče za nadaljnje raziskave na temo privzemanja MPP v povezavi z različnimi tipi organizacijske kulture. Poleg tega zagotavlja boljše razumevanje odnosa med organizacijsko kulturo, pristopi k privzemanju MPP in uspešnostjo privzemanja MPP.

Tretjič, disertacija obravnava vrzel v empirični literaturi glede povezave med organizacijsko kulturo in uspešnostjo privzemanja MPP. S kvantitativno raziskavo je bilo ugotovljeno, kako se uspešnost privzemanja MPP razlikuje med različnimi tipi organizacijske kulture. Medtem ko prejšnje študije poudarjajo pomen organizacijske kulture za uspešnost privzemanja MPP, pa zelo malo raziskav proučuje povezavo med njima na kvantitativen način (z izjemo študij, ki obravnavajo povezavo med organizacijsko kulturo in TQM, npr. Prajogo & McDermott, 2005, 2011; Yong & Pheng, 2008). Ugotovitve disertacije torej obravnavajo pomembno raziskovalno vrzel, saj kažejo, da organizacijska kultura vpliva na uspešnost privzemanja MPP. Pomembne razlike v uspešnosti privzemanja MPP so bile najdene med različnimi tipi organizacijske kulture. To potrjuje, da so organizacije z različnimi tipi organizacijske kulture različno uspešne s privzemanjem MPP. Poleg tega je ugotovljeno, kateri tipi organizacijske kulture so ugodnejši in kateri so manj ugodni za privzemanje MPP. Raziskava je pokazala, da obstaja pomembna povezava med uspešnostjo privzemanja MPP in organizacijsko kulturo ter na ta način prispevala k literaturi s podobno tematiko.

Medtem ko predhodne študije poudarjajo pomembnost ujemanja med MPP in organizacijsko kulturo (npr. vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011), pa ne obravnavajo pristopa k privzemanju MPP. Mnogi avtorji se nanašajo na potrebo po spremembi organizacijske kulture, da bi bila v skladu z načeli MPP (vom Brocke & Sinnl, 2011; Tumbas & Schmiedel, 2013), pri tem pa zanemarjajo dejstvo, da organizacijske kulture ni mogoče spremeniti v kratkem času (Grugulis & Wilkinson, 2002), njeno spreminjanje pa je zelo težko (Lee & Dale, 1998). V disertaciji je ubran drugačen pristop. Zavzeto je stališče, da bi morali prilagoditi pristop k privzemanju MPP, da bi bil v skladu z obstoječo organizacijsko kulturo in cilji organizacije, namesto da bi poskušali spremeniti organizacijsko kulturo. Pomembno vprašanje, na katerega odgovarja disertacija, je, kako pristopiti k privzemanju MPP v organizaciji glede na njeno organizacijsko kulturo. Raziskava je pokazala, kako lahko organizacije pristopijo k privzemanju MPP glede na določen tip organizacijske kulture oz. določeno kombinacijo tipov organizacijske kulture, in sicer Hierarhično kulturo in Hierarhično-Tržno kulturo.

Disertacija ima tudi pomembne praktične prispevke. Zagotavlja boljše razumevanje odnosa med organizacijsko kulturo in uspešnostjo privzemanja MPP. Ugotovitve disertacije lahko pomagajo organizacijam, da izboljšajo svoje možnosti za uspešno privzemanje MPP, tako da v pripravljalno fazo iniciative MPP vključijo tudi analizo kulture in nato ustrezno prilagodijo svoj pristop k privzemanju MPP. To je še posebej pomembno za organizacije s tipi organizacijske kulture, ki so manj ugodni za privzemanje MPP. Organizacijska kultura ima pomembno vlogo pri uspešnosti privzemanja MPP, zato bi se morale organizacije zavedati njenih značilnosti ter izbrati ustrezen pristop k privzemanju MPP. Vprašanje, kako pristopiti k privzemanju MPP v organizaciji glede na njeno organizacijsko kulturo, je obravnavano v dveh študijah primerov. Ugotovljeno je, kateri posamezni ukrepi so se izkazali za uspešne v specifičnih pogojih obravnavanih organizacij. Disertacija razširja vedenje na področju kulture v MPP in s tem prispeva k bolj uspešnemu privzemanju MPP.

9 SKLEP

Pomembnost vpliva organizacijske kulture na uspešnost privzemanja MPP je splošno priznana v literaturi. Številne študije so pokazale, da mora obstajati ujemanje med MPP in organizacijsko kulturo (vom Brocke & Sinnl, 2011; Schmiedel et al., 2013; Kohlbacher et al., 2011), kot tudi ujemanje med pristopom k privzemanju MPP in kulturo organizacije (Armistead & Machin, 1997). Toda kljub zavedanju o pomembnosti vloge, ki jo ima organizacijska kultura pri zagotavljanju uspešnosti privzemanja MPP, je obstajala vrzel v empirični literaturi glede povezave med organizacijsko kulturo in privzemanjem MPP. Prav tako je manjkala jasna opredelitev tega, kaj pomeni privzemanje MPP in kako je uspešnost privzemanja MPP mogoče izmeriti.

Skladno s tem je imela disertacija več ciljev. Namen disertacije je bil izboljšati razumevanje povezave med privzemanjem MPP in različnimi tipi organizacijske kulture in razviti teoretični okvir, ki prikazuje ta odnos. Poleg tega je bil namen tudi raziskati, kako je uspešnost privzemanja MPP povezana z organizacijsko kulturo. Zlasti, kako se uspešnost privzemanja MPP razlikuje glede na različne tipe organizacijske kulture ter kateri pristop k privzemanju MPP je primeren glede na obstoječo organizacijsko kulturo v organizaciji. Namen in cilji so bili uspešno doseženi skozi celotno raziskavo disertacije.

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