11-28-2016

Approach towards BPM Adoption under Hierarchy-Market Culture: A Case Study

Brina Buh

Mojca Indihar Štemberger

Follow this and additional works at: <https://www.ebrjournal.net/home>

Recommended Citation

Buh, B., & Indihar Štemberger, M. (2016). Approach towards BPM Adoption under Hierarchy-Market Culture: A Case Study. *Economic and Business Review*, 18(2). <https://doi.org/10.15458/85451.20>

This Original Article is brought to you for free and open access by Economic and Business Review. It has been accepted for inclusion in Economic and Business Review by an authorized editor of Economic and Business Review.

APPROACH TOWARDS BPM ADOPTION UNDER HIERARCHY-MARKET CULTURE: A CASE STUDY¹

BRINA BUH²

MOJCA INDIHAR ŠTEMBERGER³

Received: 2 December 2014

Accepted: 1 September 2015

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

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

JEL Classification: L2, L20

DOI: 10.15458/85451.20

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, more control, better business performance (Škrinjar, Bosilj-Vukšić & Indihar Štemberger, 2008), and an agile adaptation to changing business requirements (Neubauer, 2009). However, many organizations fail in their attempt to successfully adopt BPM (Trkman, 2009). The question of why certain projects succeed and others fail is an important area of research (Grisdale and Seymour, 2011; Alibabaei et al., 2010; Bandara et al., 2009).

¹ This work has been financially supported in part by the Slovenian Research Agency under the research programme No. P2-0037 - Future internet technologies: concepts, architectures, services and socio-economic issues and under the project No. J5-7287 - Big Data Analytics: From Insights to Business Process Agility and in part by the Croatian Science Foundation under the project No. IP-2014-09-3729 - Process and Business Intelligence for Business Performance.

² University of Ljubljana, Faculty of Economics, Young Researcher, Ljubljana, Slovenia,
e-mail: brina.buh@ef.uni-lj.si

³ University of Ljubljana, Faculty of Economics, Slovenia, e-mail: mojca.stemberger@ef.uni-lj.si

Several studies describe that organizational culture might have a significant impact on BPM adoption (e.g. Rosemann & de Bruin, 2005; 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). 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). Authors find a significant negative correlation between Hierarchy culture type and BPM adoption success, identifying the Hierarchy culture as the least favourable for adopting BPM. Authors also find that organizations with dominant Market culture appear to be more successful with BPM adoption than organizations with 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 differs between different types of organizational culture, this paper focuses on investigating which specific measures are likely to support BPM adoption in an organization depending on its organizational culture. Thus, the aim of this paper is to contribute to the knowledge about the possible approach towards BPM adoption under specific organizational culture. To this end, we use a case study design in order to find out what approach towards BPM adoption might be appropriate in an organization with Hierarchy-Market culture.

The paper is structured as follows: Section 2 provides a research background. Section 3 presents the research methodology followed by case study description and analysis in section 4. Section 5 summarizes key findings of our research and highlights implications and limitations, together with future research opportunities. Section 6 concludes the paper.

1. BACKGROUND

In this section, we discuss the background of our research. We describe BPM adoption and organizational culture as a factor of BPM adoption.

1.1 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 very complex process. For the purpose of this paper, 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/programs that aim to enhance the efficiency and effectiveness of business processes*, e.g. business process reengineering, lean management, total quality management, operational excellence programs, six sigma, etc.) are unsuccessful in practice (Trkman, 2009), pointing to problems with adoption and justification of 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) desire to adopt BPM, (3) setting up, executing and monitoring BPM projects, (4) converting BPM projects into a BPM program, and (5) ensuring that all BPM-related activities are consistently delivered in a cost-effective way (Rosemann, 2010).

1.2 Organizational culture and BPM adoption

Many studies identify organizational culture as one of the key factors for a successful BPM adoption (Bandara et al., 2009; Rosemann & de Bruin, 2005; 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 business process change (Škerlavaj et al., 2007; Clemons et al., 1995; Guimaraes, 1997; Terziovski et al., 2003). It should be noted that most problems regarding business process management 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 BPM adoption conflicts with the existing organizational culture, the implementation of changes will be resisted (Alibabaei et al., 2010). Therefore, the awareness of the role the organizational culture has in the success of BPM is essential (vom Brocke & Sinnl, 2011) and its characteristics should be seen as predecessors for 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 existing organizational culture and the goals of the organization.

1.3 Hierarchy-Market culture and BPM adoption

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

In contrast, Market culture appears to be more favourable for adopting BPM (Hribar & Mendling, 2014). *Market culture* is a result-oriented workplace focused on goals and creating the 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 (summarized from Cameron & Quinn, 2006).

There is very little research on the relationship between Hierarchy and Market culture and BPM adoption; however 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 a part of BPM initiative. These studies produced somewhat different and even contradictory findings. For example, Prajogo and McDermott (2011) find that Hierarchy and Market cultures are positively related to process quality. Gimenez-Espin et al. (2013) find that the effects of 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 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 for implementing TQM/Six Sigma practices (Zu, Robbins and Fredendall, 2010). On the other hand, Prajogo and McDermott (2005) find that TQM practices strategic planning, information and analysis, and process management highly correlate with Hierarchy culture.

In the following we present a case study of a large insurance company with dominant Hierarchy-Market culture where we focus on investigating which specific measures are likely to support its BPM adoption success.

2. RESEARCH DESIGN AND METHODOLOGY

To answer our research question we used a mixed method approach. We used a survey-based research design for evaluating organizational culture and for measuring the success of BPM adoption, and conducted a case study to research the approach towards 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 being intensively developed. In conducting our case study, we followed established guidelines for interpretive case study research (Yin, 1994), which is particularly suited to research questions which require detailed understanding of social or organizational processes because of the rich data collected in context (Hartley, 2004, p. 323).

In this section, we first describe the selected measurement model that was applied for assessing the organizational culture. Second, we discuss the measurement of BPM adoption success, and then present the case selection. Finally, we discuss data collection and analysis.

2.1 Measuring the organizational culture

For measuring the organizational culture we adopted the Organizational Culture Assessment Instrument (OCAI), developed by Cameron and Quinn (2006, p. 26-28). 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 utilizes the use of a 100 point summative scale and 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 respondent is asked to divide 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.

2.2 Measuring the success of BPM adoption

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

Due to this absence of an instrument, we follow Škrinjar and Trkman (2013), Thompson et al. (2009) and Dabaghkashani et al. (2012), who use proxies for measuring the success of BPM adoption. In line with Hribar and Mendling (2014) we used 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 Rummler-Brache Group (2004, p. 15). Both are freely available, empirically validated, generic (i.e. used for business processes in general), and produce quantitative data. Both utilize the use of 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 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.

2.3 Case selection

As an appropriate case, we chose a large insurance company in South-East Europe (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 approximately 2400 people. Insur was chosen for several reasons. It underwent a BPM initiative in the last five years and has a dominant Hierarchy-Market culture. It is also one of the rare cases, where BPM concepts are actually used in its daily practice, which indicates that the initiative was successful. Also, the company's management was willing to participate in the case study and enabled access to interviewees and project documentation.

2.4 Data collection and analysis

Both quantitative and qualitative data were collected. The primary sources for data collection were on-line 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 on-line survey on organizational culture was translated to Slovene 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 guaranteed complete anonymity. The data was collected in September 2013. Out of

594 questionnaires sent, a total of 152 survey responses were received, yielding a 25.6 % response rate. We also prepared an on-line survey on BPM adoption success, which was addressed to the Head of BPM office (the BPM project leader), who should have the best understanding of BPM adoption in the company. Data obtained from on-line surveys was analysed according to the measurement models using MS Excel. In addition to the survey on BPM adoption success, we reviewed the process documentation and observed the company's repository of business processes in order to determine the success of BPM adoption at Insur more objectively. Also, we interviewed several employees that were involved in the BPM initiative to find their point of view on the company's success with BPM adoption.

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 Slovene. On average, each interview lasted 60 minutes, depending on the availability of individual interviewee. We interviewed 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 primarily by five key issues: (1) why the organization engaged in a BPM initiative, (2) how was the BPM initiative carried out, (3) which problems the organization encountered during the BPM initiative, (4) which critical factors had an important impact on the success of the BPM initiative, and (5) how work practices of individuals and groups changed in the light of BPM. In the interviews, we allowed for further follow-up inquiries 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. We 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).

3. CASE STUDY DESCRIPTION

3.1 Organizational culture and BPM adoption success at Insur

The results of OCAI indicate that the dominant organizational culture at Insur is Hierarchy-Market culture, which means it has characteristics of both Market and Hierarchy culture type. 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 out of four stages), which is also known as the breakthrough level. At this level of BPO the managers employ 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 out of three stages) where organizations are “process-aware” and often have instituted formal process improvement programs. 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 BPM initiative at Insur was considered successful, we also reviewed the project reports and process documentation, including several process models, process descriptions and the company's definitions of different process roles and responsibilities. In addition, we 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 our findings we could conclude that the BPM concepts are actually used in the daily practice, which indicates that the BPM initiative was indeed successful.

3.2 Previous experience with BPM 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, the process models were on a higher level (not detailed) and were rarely updated - depending on audits and the requirements of ISO standard. In 2006, the company was faced with the need for major changes, reorganization, centralization, etc. At that point many inconsistencies in business processes were found (e.g. each regional unit had its own way of work). Thus, the idea emerged for a BPM project with the aim of standardizing 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 was gradually dropped. For some time nothing happened in this area until the end of 2008, when external consultant was hired to model and document 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 in close collaboration with each other and with external consultant. At that time the new head of department for business processes and organization was appointed and was involved in all activities during the project, which allowed him to learn from this experience, especially about the approach towards 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 the 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 process approach, and the fact that mere reorganization will not bring improvements if processes are not improved as well. Moreover, employees learnt about the approach towards process management and then continued with the BPM initiative on their own. Process models and documents that were made during the 3-month project were later used as templates.

3.3 BPM initiative at Insur

Insur officially launched a BPM initiative in May 2010 and completed it in June 2013. This initiative was a part of a broader business process renovation program, 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 very systematic and organized way. Main goals were to facilitate achieving the strategic objectives of the company, 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 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 executive director for business processes and organization, who was the project supervisor. The project leader was a head of department for business processes and organization (BPM office), who closely cooperated with the project supervisor and four other members of 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 (from each business area at least one employee was included, so that all business areas were represented).

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

In addition to project management the company established change management to reduce the risk of stopping the projects because of employees' resistance to changes. The company adopted the so called ADKAR methodology for change management and adapted it to suit its needs. The Prosci's ADKAR model consists of 5 steps, namely (1) Awareness of the need for change, (2) 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, change manager does the ADKAR analysis based on several questionnaires. The results of this analysis show how prepared 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 very 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 resistance 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).

BPM project at Insur was carried out in six phases, namely (1) preparation and confirmation of the BPM methodology, (2) processes identification, (3) determination of 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 1 presents the BPM methodology at Insur.

Figure 1. BPM methodology at Insur

After the confirmation of the BPM methodology all the other phases were conducted consecutively, but in each business area independently from other business areas (e.g. one business area was already in the modelling phase whereas another business area 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 will 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 affection of other business areas) and necessity (i.e. when 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 the phases the core project group members closely cooperated with the members of broader project group at different business areas.

3.3.1 Preparation for the project and establishing the BPM methodology

As a preparation for the BPM initiative (ever since he was appointed as the head of BPM office), the project leader educated himself on the topic of BPM (e.g. what BPM is, what tools and methodologies exist, how to adopt BPM) by reading the 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 the 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 who were included in the core project group took part in those workshops, which were headed by project leader and project supervisor. At the workshops, the project leader familiarized 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 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.

3.3.2 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 will go through and what will be their roles and responsibilities) and the purpose of process identification workshop. Then, participants agreed on specific tasks, which would take place within the next year. Finally, the head of certain business

area (who was generally determined as a process owner or administrator) determined which employees would participate in the project.

Process identification workshops consisted of identifying the processes in each business area, 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 (process analyst from 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 review and confirmation.

3.3.3 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 that these roles bring and the power to control and change the processes. Key employees were determined as process owners and process administrators to monitor business processes at Insur, propose further improvements in the future and implement the proposed changes. In principle, process owners and process administrators were determined according to the organizational structure (e.g. executive director of certain business area, head of department, etc.). Such determination 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 BPM office.

The roles and responsibilities of 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.

3.3.4 Business process modelling

In the fourth phase processes were modelled at the process modelling workshops, which were led by employee from the BPM office. Other participants at the workshop were

process administrators and 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 about 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 as-is processes. Otherwise it was very likely that the participants would get 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 a 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 between 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 that 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 BPM office).

After the workshop the process model on paper was transferred to 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 workshop participants had some comments and there was a need for correcting 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 done 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 have been modelled such changes were very rare (only in case of reorganization when processes were moved to another business unit).

3.3.5 Determination of process KPIs

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

3.3.6 Process documentation

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

Process roles and responsibilities based on 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 who is 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 results or actions taken, but do not need to be involved in the decision-making process, and with whom there is one-way communication).

3.3.7 Process improvement and innovation

At the end of the BPM project additional two phases can be added, which actually represent permanent tasks of process owners and process administrators, which are prescribed in the company's BPM methodology. First is process analysis and identification of opportunities for improvement, and second is monitoring of process indicators. Process owners and process administrators are responsible to take the initiative to look for opportunities for process improvement. Based on their initiative a workshop is convened, where 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, the bottlenecks). Second, they conduct a detailed analysis of the process, and then discuss ideas about 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 BPM office).

Suggestion for process improvements can come from process performers, process owners and administrators, and BPM office. However, certain improvement suggestions might be good for individuals, but might not be optimal for the process as a whole. This 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 that will be suitable for 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 get their own assignments, which they need to complete until a specific deadline.

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

3.4 Outcomes of BPM 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 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.

3.4.1 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 insufficient improving of processes, because it was not

clear who had the authority to make process changes or who was responsible for the process. Finally, with appointment of 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 could make certain decision; now they can immediately see who is responsible for certain process from the repository of business processes).

There are many advantages, especially the standardization of procedures in terms of who does what and where certain processes are performed. You see, Insur is a 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).

BPM office gained an important role during the BPM project. It is an independent organizational unit and consists of three employees. The primary tasks of BPM office are to establish BPM methods, model business processes and provide support to 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 for BPM office.

3.4.2 Standardized procedures and transparency of process data

Another perceived benefit of BPM adoption was standardizing the procedures and publishing the rules regarding process management. Methodology for modelling, documenting, measuring, and renovating the processes is prescribed and published in several connected documents in the company's internal application, which facilitates controlling 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 supports 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 for training the new employees. They can simply review the process models and descriptions and get all the necessary information about the processes without having to ask other employees for help.

The repository of business processes comes in handy also when process or organizational changes are to be implemented. It gives a good overview of all the processes that exist in certain business area, which makes 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 the 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 sharing the information between process owners, administrators and other employees. So far, the 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 that are relevant to them.

3.4.3 Process awareness

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

It seems to me that we have made 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 BPM office).

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

3.4.4 Employee satisfaction

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

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

Thus, the plan for the future is to further enforce the BPM methodology and to teach 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).

4. DISCUSSION

In this section, we summarize the key findings of our case study and discuss implications, limitations and future research.

Our findings are twofold. First, we identify several characteristics of BPM initiative at Insur that were found to be important. Some of these characteristics are more general and cannot be directly linked to the specific organizational culture. They may have bigger role in certain types of organizational culture; however, based on our case study alone we cannot make this judgement. Due to the lack of references from literature we were unable to assign all the characteristics to organizational culture. While previous studies have established the 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, our study focuses on the approach towards BPM adoption in specific organizational culture setting.

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

4.1 Key characteristics of BPM initiative at Insur

We identified several characteristics that played a key role in the BPM initiative at Insur. We first present these characteristics in Table 1 and then discuss them in more detail.

Characteristic	Description	Connection to Hierarchy and/or Market culture
Good preparation for the project and clearly defining the BPM methodology	Establishing very detailed rules on how the processes should be managed (BPM methodology)	Hierarchy culture (Cameron & Quinn, 2006)

Characteristic	Description	Connection to Hierarchy and/or Market culture
Managing the BPM initiative	Approaching BPM adoption very formally and systematically in a very controlled and yet also pragmatic way	Hierarchy culture (Cameron & Quinn, 2006)
Establishment of 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, Robbins & Fredendall, 2010)
Fostering employee collaboration	Constant communication and the use of participative methods (workshops, brainstorming)	Applies to all cultures, however it could also be linked to Market culture (Gambi et al., 2015)
Leadership support and attention to process	Gaining support by emphasizing the importance of BPM and the need for determining KPIs, monitoring and improving the processes	Applies to all cultures
Increasing process awareness	Making employees understand that adopting BPM is necessary and how they will benefit from it	Market culture (Cameron & Quinn, 2006)

Table 1. Key characteristics of BPM initiative at Insur

We derived these characteristics based on our case study analysis. The question of which factors had an important impact on the success of the BPM initiative was one of our five key issues we were interested in when conducting the interviews with employees who participated in the BPM initiative (see section 3.4 for more details). Most common answers were then grouped together into seven key characteristics of BPM initiative at Insur presented in Table 1. Besides the characteristics and their short descriptions we suggest which characteristics could be linked to Hierarchy and/or Market culture based on findings from previous studies. As mentioned, some of these characteristics are quite general and we cannot claim that they are only valid for organizations with Hierarchy-Market culture or that they are valid for all organizations with Hierarchy-Market culture. In fact, it may well be that the same factors would contribute to success also in different organizational cultures.

4.1.1 Good preparation for the project and clearly defining the BPM methodology

The BPM initiative at Insur was very 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 project purpose, goals and KPIs.

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

4.1.2 Managing the BPM initiative

Our data analysis shows that Insur approached BPM adoption in a very controlled (strictly according to the established BPM methodology), and yet also pragmatic way (e.g. conducting the project phases in each business area independently from other business areas, adjusting to the different pace of individual business areas and prioritizing processes). The BPM initiative was led very 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 BPM. During the BPM initiative the project leader had to report about the project progress to the project supervisor and to the project office every three months and at the end of the project, the final report on achieving the objectives of the project had to be made. This is clearly in line with the characteristics of Hierarchy culture, which emphasizes 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 very high level, which enables the systematic implementation of the activities leading to the pursued objective. Project and change management were also frequently identified in literature as one of the success factors for BPM (Ariyachandra & Frolick, 2008; Bandara et al., 2009; Ohtonen & Lainema, 2011; Ravesteyn, 2007; Trkman, 2009); however, not in connection with the organizational culture.

4.1.3 Establishment of BPM office and introducing a system of accountability for all processes

BPM office played a key role in the BPM initiative at Insur. It was crucial that the BPM office was established at the beginning of the BPM initiative and was included in planning

the BPM initiative, educating other employees about BPM and establishing the BPM methodology. Main responsibilities of BPM office are modelling of business processes and providing support to process owners and process administrators. Dedicated employees at the BPM office are also responsible for the proper implementation of BPM methodology, maintaining the repository of business processes and the overall success of BPM initiative.

Transparency of process roles and responsibilities as well as clearly determining control and accountability mechanisms early in the project are important characteristics of Insur's BPM initiative, which are in line with 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 Hierarchy culture this is valued as one of important keys to success (Cameron & Quinn, 2006).

Determining process owners and administrators was a key point in our BPM initiative. We wanted to determine process ownership early in the project because it was a prerequisite for the successful implementation of all the 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).

4.1.4 Process measurement and continuous process improvement

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

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

4.1.5 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 for 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 for the company in several messages, so that the process awareness of employees would increase. After that employees were informed only if necessary, when they got a specific task that required their cooperation.

BPM office communicated directly with process owners and process administrators, who then communicated further with other employees (process performers). 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 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 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 about 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 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 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 the 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 maximum of 5-7 employees, managing the workshops is quite easy. All of the 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 that 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 is it that 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 details about the project.

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 participants to understand (Member of BPM office).

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

Employee collaboration is crucial in any project regardless of organizational culture. Importance of communication is recognized 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, 2009) and the use of workshops is also found to be appropriate by several authors (e.g. Dumas et al., 2013; Manfreda et al., 2015). While these studies recognize the importance of communication and the use of workshops, they do not connect their findings to organizational culture. Thus, we assume that fostering employee collaboration is a general factor that applies to all cultures. However, findings from Gambi and associates (2015), which suggest 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.

4.1.6 Leadership support and attention to process

Another key factor for successful completion of the project is leadership support and attention to processes. Leadership support for the BPM project was strong from the very beginning and throughout the whole project. In fact, the initiative for the BPM project came from project supervisor. Active involvement of the project supervisor who is also a member of top management was very important for the success of the project. Being a member of top management and participating at all the top-level strategic company meetings enabled the project supervisor to gain support of others by emphasizing the importance of BPM and especially the need for determining KPIs, monitoring and improving the processes. This personal commitment of project supervisor could be recognized 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 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 the support of the top management. 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 very general success factor, recognized in many studies (e.g. Ohtonen & Lainema, 2011; Ravesteyn & Batenburg, 2010; Ravesteyn, 2007; Trkman, 2009), independently of the organizational culture.

4.1.7 Increasing process awareness

Besides leadership support and constant communication before, during and after the project, one of the key issues for the BPM project at Insur was to increase process awareness and to convince employees that adopting the BPM methodology and accepting their new process roles (i.e. process ownership and administration) will bring major benefits to them and the company as a whole. We find that even for a company with Hierarchy-Market organizational culture, which is inclined to following rules and achieving results, it is not good enough just to 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 the workshop leader) should clearly explain to them the purpose of the project (or specific workshop) as well as how they will benefit from it (especially emphasize the ability to achieve better results).

Most frequently we are facing the questions of whether and how this [process modelling] will benefit employees at 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 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 very challenging task. However, it has proven to be worth the effort. When employees understood why 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 work. If you tell process owners and administrators to determine the process KPIs until 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 process KPIs so that you will be able to better manage your process and achieve better results”) and they “buy” it, then you will be successful (Head of 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 could be linked to Market culture. Market culture organizations are very result-oriented and focus on creating the 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 that they can achieve better results by managing the processes.

I think some more time will have to pass before process owners will truly internalize 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 important only that 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).

4.2 Lessons learned: Approach towards BPM adoption under Hierarchy-Market culture

When analysing our case study we proceeded from the characteristics of Hierarchy-Market culture as defined by Cameron and Quinn (2006) and tried to connect these characteristics to specific measures that seemed to support BPM adoption success in the studied case. We were specifically looking for a match between organization's culture characteristics and the measures that were taken during their BPM initiative. At this point we would like to clarify that it was not our intention to make any generalized assumptions based on this case study, but rather provide an insightful illustration of the elements that contributed to successful BPM adoption in the studied organisation with Hierarchy-Market culture. To be able to give valid and generalizable conclusions regarding the appropriate approach towards BPM adoption under 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 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 very strong. Employees are also rewarded in relation to achieving objectives (the variable part of their salary is tied to the realization of goals), which is in line with the characteristics of Market culture. At the same time, the company has established very detailed rules on how the processes should be managed by adopting their 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 Hierarchy culture.

Cameron and Quinn (2006) characterize Hierarchy culture organizations as having a lot of standardized 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 Hierarchy and Market culture, the right approach in this case seemed to be to clearly determine assignments and responsibilities for each process role, however at the same time emphasize that BPM is something that they need, and explain how it will benefit them, especially from the point of view that they will have the power to control and change their processes, and be able to achieve better results. The emphasis on achieving results is very much in line with the Market culture, whereas determining the rules and clearly defining the decision-making authority are characteristics of Hierarchy culture. Based on our data analysis and the characteristics of Hierarchy and Market culture as defined by Cameron and Quinn (2006), we find that the approach towards BPM adoption at Insur appeared to be in line with the Hierarchy-Market culture, which is dominant organizational culture in the company.

Table 2 summarizes our main findings and presents the fit between the cultural characteristics and the measures taken during the company's BPM initiative. We mapped together the characteristics of Hierarchy and Market culture as defined by Cameron and Quinn (2006) with specific measures that seemed to contribute to the success of BPM adoption at Insur. In the first column we present the Hierarchy and Market culture characteristics and in the second column we identify which measures can be linked to the characteristics of Hierarchy culture and which measures match better with Market culture characteristics.

Hierarchy culture characteristics	Measures in line with Hierarchy culture characteristics
Formal work environment with emphasis on structure, control, coordination, and efficiency.	<ul style="list-style-type: none"> - Approaching BPM adoption very systematically in a formal, organized and controlled way, according to the guidelines for project management.
Procedures govern people's activities, standardized rules and procedures are valued as keys to success.	<ul style="list-style-type: none"> - Establishing standardized 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.	<ul style="list-style-type: none"> - 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.	<ul style="list-style-type: none"> - Establishing a BPM office for the support of process owners and administrators. - Keeping a good overview of the project at all times.
Stability, predictability, and efficiency characterize the long-term concerns of an organization.	<ul style="list-style-type: none"> - 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.	<ul style="list-style-type: none"> - Clearly defining the purpose of 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.

Market culture characteristics	Measures in line with Market culture characteristics
Main values that dominate Market-type organizations are profitability, competitiveness, productivity, and goal achievement.	<ul style="list-style-type: none"> - Emphasizing the power to control and change the processes. - Making employees understand that they can achieve better results by managing the processes.
The major task of management is to drive the organization toward productivity, results, and profits.	<ul style="list-style-type: none"> - Leading by example and motivating employees by showing them results of other business areas.
Result-oriented workplace focused on goals and creating the competitive advantage. Emphasis is on external positioning and control.	<ul style="list-style-type: none"> - Controlling whether the objectives have been achieved. - Rewarding employees according to achieved objectives.

Table 2. Approach towards BPM adoption under Hierarchy-Market culture

Here, we would again like to point out that while the measures identified in Table 2 might work well in the specific case due to their assumed cultural fit (without further research that could confirm our findings this is still just an assumption), it is important to note that there were also other factors that had an important role in the success of the company's BPM initiative. Some of these factors are more general and cannot be assigned to organizational culture.

4.3 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 for BPM adoption. In this paper we go a step further and present a case study of BPM adoption in an organization with Hierarchy-Market culture and find which specific measures have successfully been used in such specific setting. This study forms an insightful illustration of the elements that contributed to BPM adoption in an organisation that is characterised by having a Hierarchy-Market culture and that appears to be on a good path towards full BPM adoption. Our work extends the body of knowledge regarding the cultural issues in BPM, and thereby contributes towards more successful BPM adoption.

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

5. CONCLUSION

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

In this paper we analyse the approach towards BPM adoption under Hierarchy-Market culture. We focus on investigating which specific measures are likely to support the successful adoption of BPM in such cultural setting. Our findings show that formal, well organized and controlled approach worked well in our studied case. Clearly determining assignments and responsibilities for each process role, defining the decision-making authority early in the project, as well as 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 Hierarchy-Market culture and seem to contribute 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, however further research is necessary to be able to confirm and expand our findings.

REFERENCES

- Alibabaei, A., Aghdasi, M., Zarei, B. & Stewart, G. (2010). The Role of Culture in Business Process Management Initiatives. *Australian Journal of Basic and Applied Sciences*, 4(7), 2143–2154.
- Ariyachandra, T.R. & Frolick, M.N. (2008). Critical Success Factors in Business Performance Management – Striving for Success. *Information Systems Management*, 25(2), 113–120.
- Armistead, C., Pritchard J. & Machin, S. (1999). Strategic Business Process Management for Organisational Effectiveness. *Long Range Planning*, 32(1), 96–106.
- Bandara, W., Alibabaei, A. & Aghdasi, M. (2009). Means of achieving Business Process Management success factors. In Pouloumenakou, A., Pouloudi, N. and Pramataris, K. (Eds.), *Proceedings of the 4th Mediterranean Conference on Information Systems* (pp. 1348–1363). Athens: University of Economics and Business.
- Cameron, K.S. & Quinn, R.E. (2006). Diagnosing and changing organizational culture: Based on the competing values framework. Reading, MA: Addison-Wesley.
- Clemons, E.K., Thatcher, M.E. & Row, M.C. (1995). Identifying the sources of reengineering failures: a study of the behavioral factors contributing to reengineering risks. *Journal of Management Information Systems*, 12, 9–36.

- Dabaghkashani, A. Z., Hajiheydari, B.N. & Haghighinasab, C. M. (2012). A Success Model for Business Process Management Implementation. *International Journal of Information and Electronics Engineering*, 2(5), 725–729.
- da Silva, L. A., Martins Damian, I. P., & Dallavalle de Pa’dua, S. I. (2012). Process management tasks and barriers: functional to processes approach. *Business Process Management Journal*, 18, 762–776.
- de Bruin, T. (2009). Business process management: theory on progression and maturity. PhD Thesis, Queensland University of Technology, Brisbane, Australia.
- de Bruin, T. & Doebeli, G. (2010). An organizational approach to BPM: the experience of an Australian transport provider. J. vom Brocke and M. Rosemann (Eds.), *Handbook on Business Process Management 2, International Handbooks on Information Systems* (pp. 559–577). Berlin: Springer
- Dumas, M., La Rosa, M., Mendling, J. & Reijers, H.A. (2013). *Fundamentals of Business Process Management*. Springer-Verlag, 2013.
- Gambi, L.D.N, Boer, H., Gerolamo, M.C., Jørgensen, F. & Ribeiro Carpinetti, L.C. (2015). The relationship between organizational culture and quality techniques, and its impact on operational performance. *International Journal of Operations & Production Management*, 35(10), 1460–1484.
- Jimenez-Espin, J.A., Jiménez-Jiménez, D. & Martínez-Costa, M. (2013). Organizational culture for total quality management. *Total Quality Management & Business Excellence*, 24(5/6), 678–692.
- Grisdale, W. & Seymour, L.F. (2011). Business process management adoption: a case study of a South African supermarket retailer. In Proceedings of the South African Institute of Computer Scientists and Information Technologists Conference on Knowledge, Innovation and Leadership in a Diverse, Multidisciplinary Environment, New York, USA, 106–115.
- Grugulis, I. & Wilkinson, A. (2002). Managing Culture at British Airways: Hype, Hope and Reality. *Long Range Planning*, 35, 179–194.
- Guimaraes, T. (1997). Empirically testing the antecedents of BPR success. *International Journal of Production Economics*, 50, 199–210.
- Hartley, J. (2004). Case Study Research. In Cassell, C. & Symon, G. (Eds.), *Essential Guide to Qualitative Methods in Organizational Research* (pp. 232–333). London: Sage.
- Hay, I. (2005). *Qualitative research methods in human geography*. Oxford: University Press.
- Hofstede, G. (1993). Culture constraints in management theories. *Academy of management executive*, 7(1), 81–94.
- Hribar, B. & Mendling, J. (2014). The correlation of organizational culture and success of BPM adoption. In Proceedings of the 22nd European Conference on Information Systems (ECIS 2014), Tel Aviv, Israel, 9–11 June.
- Jeston, J. & Nelis, J. (2006). *Business Process Management: Practical Guidelines to Successful Implementation*. Oxford: Elsevier.
- Lee, R. G. & Dale, B. G. (1998). Business process management: a review and evaluation. *Business Process Management Journal*, 4(3), 214–225.
- Manfreda, T, Buh, B. & Indihar Štemberger, M. (2015). Knowledge-intensive process management: a case study from the public sector. *Baltic Journal of Management*, 10, 456–477.
- McCormack, K. & Johnson, W.C. (2001). *Business process orientation: gaining the e-business competitive advantage*. Florida: St. Lucie Press.
- Melenovsky, M. J. & Sinur, J. (2006, October 18). BPM Maturity Model Identifies Six Phases for Successful BPM Adoption. Gartner.
- Neubauer, T. (2009). An empirical study about the status of business process management. *Business Process Management Journal*, 15(2), 166–183.

Ohtonen, J. & Lainema, T. (2011). Critical success factors in business process management – A literature review. In Leino, T. (Ed.), *Proceedings of IRIS 2011*, TUCS Lecture Notes (pp. 572–585). Turku: Centre for Computer Science.

Prajogo, D.I & McDermott, C.M. (2005). The relationship between total quality management practices and organizational culture. *International Journal of Operations & Production Management*, 25(11), 1101–1122.

Prajogo, D.I & McDermott, C.M. (2011). The relationship between multidimensional organizational culture and performance. *International Journal of Operations & Production Management*, 31(7), 712–735.

Ravesteyn, J.P.P. (2007). A Study into the Critical Success Factors when Implementing Business Process Management Systems. In Khosrow-Pour, M. (Ed.), *Managing Worldwide Operations and Communications with Information Technology*, IGI Publishing, Vancouver, 1291–1293.

Ravesteyn, J.P.P. & Versendaal, J. (2007). Success factors of business process management systems implementation. In Proceedings of the 18th Australasian Conference on Information Systems (ACIS 2007), 5–7 Dec 2007, Toowoomba, Australia.

Ravesteyn, J.P.P. & Batenburg, R. (2010). Surveying the critical success factors of BPM-systems implementation. *Business Process Management Journal*, 16(3):492–507.

Reijers, H. A., van Wijk, S., Mutschler, B. & Leurs, M. (2010). BPM in Practice: Who Is Doing What? In R. Hull, J. Mendling & S. Tai (Eds.), *Business Process Management: Lecture Notes in Computer Science* (pp. 45–60). Berlin: Springer.

Rohloff, M. (2009). Case Study and Maturity Model for Business Process Management Implementation. In Dayal, U., Eder, J., Koehler, J. and Reijers, H.A. (Eds.), *Business Process Management: Lecture Notes in Computer Science* (pp. 128–142). Heidelberg: Springer.

Rosemann, M. (2010). The Service Portfolio of a BPM Center of Excellence. In vom Brocke, J. & Rosemann, M. (Eds.), *Handbook on Business Process Management 2, International Handbooks on Information Systems* (pp. 267–284). Berlin: Springer.

Rosemann, M. & de Bruin, T. (2005). Towards a Business Process Management Maturity Model. In Proceedings of the 13th European Conference on Information Systems (ECIS 2005). Regensburg, Germany.

Rosemann, M. & vom Brocke, J. (2010). The Six Core Elements of Business Process Management. In J. vom Brocke & M. Rosemann (Eds.), *Handbook on Business Process Management 1: Introduction, Methods and Information Systems* (pp. 107–122). Berlin: Springer.

Rummler-Brache Group (2004, March). *Business process management in U.S. firms today*. http://rummler-brache.com/upload/files/PPI_Research_Results.pdf (accessed June 23, 2012)

Schein, E.H. (1996). Three cultures of management: the key to organizational learning. *Sloan Management Review*, 9–20.

Škerlavaj, M., Indihar Štemberger, M., Škrinjar, R. & Dimovski, V. (2007). Organizational learning culture - the missing link between business process change and organizational performance. *International Journal of Production Economics*, 106(3), 346–367.

Škrinjar, R., Bosilj-Vukšić, V. & Indihar Štemberger, M. (2008). The impact of business process orientation on financial and non-financial performance. *Business Process Management Journal*, 14(5), 738–754.

Škrinjar, R. & Trkman, P. (2013). Increasing process orientation with business process management: Critical practices. *International Journal of Information Management*, 33, 48–60.

Terziovski, M., Fitzpatrick, P. & O'Neil, P. (2003). Successful predictors of business process reengineering (BPR) in financial services. *International Journal of Production Economics* 84, 35–50.

Thompson, G., Seymour, L. F. & O'Donovan, B. (2009). Towards a BPM Success Model: An Analysis in South African Financial Services Organisations. In Enterprise, Business-Process and Information Systems Modeling, 29, 1–13.

- Trkman, P. (2009). The critical success factors of business process management. *International Journal of Information Management*, 30(2), 125–134.
- vom Brocke, J. & Schmiedel, T. (2011). Towards A Conceptualisation Of BPM-Culture: Results From A Literature Review. *PACIS 2011 Proceedings*. Paper 203.
- vom Brocke, J. & Sinnl, T. (2011). Culture in Business Process Management: A Literature Review. *Business Process Management Journal*, 17(2), 357–378.
- Yin, R.K. (1994), “*Case study research: Design and methods*”, Sage Publications, Beverly Hills, California.
- Zu, X., Robbins, T.L. & Fredendall, L.D. (2010). Mapping the critical links between organizational culture and TQM/Six Sigma practices. *International Journal of Production Economics*, 123(1), 86–106.