The Challenge of Reaching Higher Process Orientation: 
A Case Study of a German Organization Operating in the Automotive Industry

Jannik Buck
Abstract

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Business Process Management (BPM) has become a popular concept in business development in recent years. Traditionally, however, research surrounding BPM initiatives have centered on large organizations, meaning that little is known about the effects of BPM, both positive and negative, on a Small- and Medium sized Organization (SMO).

This research identifies problems that a SMO can face when working toward higher process orientation and provides an explanation as to why efforts have failed in the past. Furthermore, the requirements for implementing BPM from a process-execution perspective were investigated. The issues that arise to limit success of the BPM initiative have been identified and discussed in relation to existing literature on BPM implementation, particularly those issues that are unique to SMOs.

Through better understanding of the requirements for a successful BPM initiative, the SMO is able to identify the areas that it need to be addressed specifically before the organization is able to reach higher process orientation.
The Challenge of Reaching Higher Process Orientation:

*A Case Study of a German Organization Operating in the Automotive Industry*

*Popular Summary*

Jannik Buck

Increasing business efficiency is an ongoing challenge that every organization faces. Business Process Management (BPM) is a concept and management style that increases business efficiency by moving away from traditional, functional orientation towards higher process-orientation. Much research has focused on the benefits of BPM initiatives for large organizations and on common factors for predicting their success or failure, leaving behind any Small- and Medium sized Organization (SMO). Recent research has determined that a general BPM approach is not viable for implementation because each organization is unique.

As such, this research aims to identify problems that a specific SMO faces on their way to achieving higher process-orientation. By identifying the most urgent problems hindering BPM initiatives, an organization is able to tailor their approach by prioritizing issues and dealing with them hierarchically and iteratively. When looking at the implementation stage, where many BPM initiatives fail, it was identified that process implementation needed worthwhile at a personal employee level to provide guidance and support.

The results of the study identified problems within the specific organization were classified into five main topics which largely agree with prior research. In particular, organizational culture was identified as a hindering factor to a BPM initiative. Specifically for SMO’s, an issue manifests in the trade-off between flexibility and structure. Flexibility serves customers and adapts quickly but may delay processes within the organization resulting in an overall negative effect.

Furthermore, BPM initiatives have led a field of tension between the organization and employees. The aim of the organization is to standardize and structure to increase efficiency, decision-making and retaining knowledge within the organization. However, the employees’ need to maintain responsibilities in order to feel valued. A high degree of standardization can undermine the employee’s competencies.

This study expanded the current Business Process Management Body of Knowledge (BPMbody) by investigating the problems a specific organization faces and the requirements for process implementation from an employee point of view, enabling a tailored approach to enable future BPM success.
Preface

The personal interest to conduct this research work has mainly be the one of trying to put theory into practice. With BPM aiming to understand and improve organizations on various levels and building up on an extensive body of knowledge reaching back more than 100 years, the importance of BPM is still given. The insights into the organization while the research have been conducted has been helpful to personally develop and prepare for professional life by applying theory in practice.

Acknowledgments

I am using this opportunity to express my gratitude to everyone who supported me throughout the course of this research project. I am thankful for their aspiring guidance, invaluably constructive criticism and friendly advice during the project work. I am sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the project.

I express my warm thanks to Ms. Krebs for her support and guidance at the organization and all the other employees who made my time within the organization cheerful and worthwhile.

I would also like to thank my examiner Mr. Sköld from Uppsala University who provided me with good guidance and interesting, eye-opening discussions during the time of the research work.

Furthermore I would like to thank my family and friends for the never ending support throughout the whole Master study, not only in good times.

An exceptional thanks to Stephanie Lambie for having the patience and tranquility helping out whenever there have been questions and doubts.

JANNIK BUCK, Uppsala, June 2018
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<tr>
<td>BPM</td>
<td>Business Process Management</td>
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<td>BPMBOK</td>
<td>Business Process Management Body of Knowledge</td>
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<td>BPO</td>
<td>Business Process Orientation</td>
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<td>BPR</td>
<td>Business Process Reengineering</td>
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<td>CSF</td>
<td>Critical Success Factor</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>Key Performance Indicator</td>
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Chapter 1

Introduction

Business Process Management in its current form of understanding has evolved over the last 100 years and continues to evolve to this day. With BPM incorporating three major streams, quality control-, business management- and Information Technology (IT) stream, capitalizing on the strengths of each of these streams in an effort to minimize their limitations. In doing so, BPM is able to be applied to any organization that wishes to improve their internal and external processes and to finally reach higher process-orientation. Especially in a globalized world, process-orientation is essential for an organization to be able to serve customer demands and execute end-to-end processes efficiently.

With the contemporary BPMBOK focusing mainly on large organizations due to higher impacts of BPM initiatives, research on a SMO is lagging behind even though they can also highly benefit from a more process-oriented approach in doing business (Chong (2014)). Regarding BPM initiatives in large organizations, research has identified many different success factors, enablers, common failure factors and supportive conditions that are necessary and allow an organization to succeed in conducting a BPM initiative (Trkman (2010); Aparecida da Silva et al. (2012)). Even though many different factors for a BPM initiative to be successful have been identified within the literature, the most common critique is a missing link between the theoretical framework of BPM and the practicalities of implementation into an existing organization. This is leading to BPM being a rather atheoretical field of research (Trkman (2010)).

Paim et al. (2008) investigated gaps of BPM when applying theory into practice. Practitioners benefit most from empirically oriented research while much of the BPMBOK is theory-oriented. vom Brocke et al. (2016) recognizes this and as such has recently investigated the importance of organizational context within any BPM initiative concluding that organizations differ in many aspects that allow generic approaches to BPM initiatives to fail.
While the existing BPM BOK is extensive, BPM is a constantly evolving subject meaning that many different definitions of BPM exist. Variations on the fundamental understanding of BPM has lead to confusion in the research community and has, correspondingly, complicated implementation. Former research gives many different definitions of BPM ranging from a management practice combining business and IT (Ravesteyn and Batenburg (2010)) to the ability of BPM to increase productivity and fundamental activities (Paim et al. (2008); Trkman (2010)).

However, it is not only the definition of BPM that varies from study to study. The correlation between BPM and business success is also perceived differently, depending on the source (Trkman (2010)). Especially when not only looking at overall business success, there is a high variation of perceived improvements within different fields (cf. Ravesteyn and Batenburg (2010) and Kohlbacher (2009)).

Another problem that comes with an extensive BPM BOK is its general applicability for practitioners. Especially for SMOs, where according to Chong (2014) a certain lack of resources, regarding time and finances, is common. As the BPM BOK is so extensive, a thorough understanding of its background and theoretical aspects is required to be able to exploit the concepts of BPM. However, it is also well established that a BPM initiative is organization specific. Therefore, an understanding is paramount to allow a successful BPM initiative. To gain the mentioned thorough understanding and knowledge within the field of BPM and staying up-to-date is difficult to obtain besides daily work. SMOs are therefore often lacking this kind of specific understanding and extensive knowledge of BPM leading to wasted resources and finally unsuccessful BPM initiatives (Chong (2014)).

1.1 Aim of the Study

This research work aims to investigate into the specific problems an organization faces when trying to reach higher process orientation, to expand the current BPM BOK in the field of SMOs and to develop existing research by offering an efficient approach to tailor a BPM initiative. Knowing about the problems of the BPM BOK and the missing link between SMOs as well as success factors for BPM, a specific case aids to further understanding the specific problems an organization is actually facing in order to enable these issues to be addressed hierarchically in an iterative manner. With many BPM initiatives failing in the stage of process implementation, this research is also investigating into the needs of employees for making process implementation successful and worthwhile, instead of focusing solely on a management point of view, which has historically been the sole focus of studies.

Identifying former and present problems reaching higher process orientation as
well as knowing what it takes to implement processes on an execution level, the organization is able to address specific problems directly which allows an efficient and structured way to overcome those.

Out of the set goals the resulting research questions are the following:

1. What are (and have been) the problems of a specific SMO in the automotive industry becoming more process-oriented?
2. What are the requirements for an individual employee on the execution level working in a SMO to make process implementations worthwhile?

To answer the two research questions, the study took place as a case study in an organization. Following this approach, deep insights into the specific organization, that allow a thorough answering of the research questions.

1.1.1 The Organization

The organization is well established in their field of business, the automotive sector, and is situated in Germany and represents a SMO with its around 180 employees. With prior efforts to reach higher process-orientation date back many years, however, all initiatives have been unsuccessful. As such, there is a specific need to investigate the problems that this SMO faces on its way to reach higher process-orientation. The background of the failed attempts made by the organization supports prior research as it shows the importance of addressing a BPM initiative in the right way. To answer the research questions mentioned before, the organization provides valuable insights into the different approaches taken to reach the goal of higher process orientation and also why previous attempts have failed. It is therefore possible to investigate and identify problems a SMO is facing when applying BPM.

From an organization point of view there are three major points to engage in BPM. The certification after ISO 9001:2015, which demands a process oriented approach in doing business, the roll-out of a new Enterprise Resource Planning System and to increase efficiency in executing daily work.
1.2 Boundaries and Limitations

One of the major limitations of this master thesis is the specificity of the project as it is conducted in one organization only. But as mentioned in (vom Brocke et al. (2016)), no organization is the same and there are many variables that differ between organizations, even those working in the same industry. The applicability of this research on other organizations is limited because conducting research in a specific organization and industry can lead to a specific outcome and generalization of the results onto other organizations might not be possible.

Another major limitation is the time allocated for conducting the project. With a time frame of four months, the long term success of the methodologies proposed to address identified problems can not be evaluated. Having this limited time frame the focus is set on identifying the problems within the organization from an organizational and employee point of view and to investigate what makes processes implementation so difficult. The follow-up on the addressing of the problems and implementation will need to be done by management to reach the aim of higher process orientation. There are only possibilities shown of which steps to take to reach higher process orientation and to address tension fields between the organization and employees.

The BPMBOK can be seen as a huge encyclopedia covering many topics like Business Process Reengineering (BPR) and BPM maturity. This research work only focuses on the parts of the BPMBOK directly related to conducting a BPM initiative and looking at problems related to BPM, particularly implementation. Factors such as setting up a project or the state of process maturity of the organization, which both influence any BPM initiative are only partly considered because of time constraints, the applicability to SMO's and scope of the study. Having limited resources, SMO's are less likely to invest a lot into resource intensive projects and initiatives if there is no urgent need seen. Along with this problem, this particular SMO is lacking the expertise in conducting BPM initiatives and there is an inability to afford external consulting. Having this in mind, another limitation is the lack of expert knowledge within the organization.

The last limitation is also one found in many SMO's; the lack of existing IT-systems. ARIS or IBM are only two examples of directly related programs to support BPM projects from design to implementation and measurement. Due to resource constraints within the specific organization, there is no specific BPM software available. The only software available for modeling processes is Microsoft Visio which is a viable compromise and allows some sort of BPM related functionality.
1.3 Thesis Disposition

The Master Thesis has the following structure. Following the introduction to the topic, the literature review aims to introduce the reader to the necessary background knowledge regarding BPM. This section walks the reader through the evolution of BPM and its recent definition to answer the question of “why" an organization should aim to become more process oriented, the identification of factors for successful BPM initiatives in literature and BPM's relation and link to organizational culture. The theory section is finished by identifying BPM related problems and the specific gaps identified comparing theory and practice. Following this section is a description of the methodology used to gather data necessary for the empirical analysis. The empirical analysis is based on a discourse analytical approach and is followed by the discussion where the two research questions are addressed in reference to the literature review and empirical analysis. The conclusion provides the reader with a quick overview of the results found within the organization and gives some guidance of what steps the organization can take to tackle the identified problems to reach higher process orientation. Finally, the work is finished off by an ethical view of BPM to highlight societal concerns that reach beyond the scope of the master thesis.
Chapter 2

Theoretical Background

The following chapter will give the reader an insight into the evolution of BPM. I will begin by establishing a robust definition of BPM before discussing its advantages, application to small organizations and how to quantify the success of BPM implementation using Critical Success Factor (CSF), barriers, failures and preconditions. Building on the theoretical part of this work is a qualitative case study which considers the problems faced when conducting a BPM approach in a real-world situation.

2.1 Evolution of BPM

The fundamentals of BPM reach back to the beginning of the management-employee relationship. Describing the evolution of today's understanding of BPM in its entirety exceeds the scope of this work. This part shall only serve to obtain an understanding about the different forms of BPM that influence and lead to a modern understanding of this type of management- and organizational theory. An overview of the development of BPM can be seen in Figure 2.1.

The principal aim of all managers and employees to improve an organization dates back many years. Frederick Winslow Taylor's publication of “Principles of Scientific Management” in 1911 was the first book to describe ideas and guidelines that effective managers should utilize for improving their business (Harmon (2010)). Of course there had previously been efforts to increase productivity but Taylor's approach focusing on work simplification, by identifying, controlling and measuring the way an activity is performed in addition to making the publication widely available was completely novel. Taylor's book led to Henry Ford's new approach to car manufacturing where he used a moving line for production. At Ford's operation, the assembly started at one end of the plant and at the other the
finished car rolled out, ready for sale. The whole manufacturing process was organized into stations and employees performed a repeating task they were assigned to. Ford's way of manufacturing led to cheaper cars, higher salaries for his workers and improved product quality through standardization (Harmon (2010)). The car industry had been revolutionized and many others tried to follow Ford's approach, taken from Taylor's management theory, of streamlining their production, which led to the enormous popularity of Taylor's book. Awareness of the importance of simplifying and standardizing processes and controlling the quality of outputs has since spread all around the world.

Today's understanding of BPM emerged from the continuous development of the above described “scientific management”, highlighted in red in Figure 2.1, and can be broken down into three major streams namely the quality control-, business management-, and IT stream (Harmon (2010)). The three streams are presented respectively in yellow, turquoise and green in Figure 2.1. The elements highlighted in grey display supportive activities for evaluating BPM maturity in organizations, which will not entirely be considered in this work due to the lack of process orientation within the researched organization. The quality control stream is the direct result of Taylor's simplification and standardization approach. While the quality control stream, in its infancy, focused on the manufacturing of products it was extended in the late 20th century by redesigning processes to become a lean organization, meaning the creation of higher customer value using less resources (Bicheno, J. and Holweg, M. (2000)). The current focus of the quality control stream can be seen as the combination of Lean Six Sigma with its specific techniques of reducing waste (Lean) and reduce process variation (Six Sigma) (Harmon (2010)). The business management stream focuses on the company's overall performance by emphasizing the alignment of the BPM strategy in achieving corporate goals. The third and last stream, IT, evolved with the rise of computers and software applications that allowed work processes to be automated. While at first focusing on back office operations, computers nowadays support many employees in doing their work (Harmon (2010)). People soon accepted that IT can be used as a way of radically transforming and automating processes.

The combination of the three streams lead to BPM encompassing the strengths of each stream while their limitations are able to be overlooked. Due to the strength and exclusivity of the BPM approach, it is able to be applied in an universal manner and allows for further adaption of BPM in any direction (Chong (2014)). This universality can be seen as an advantage regarding the adaptability and representation to fit within the actual way of working but means that there is a lack of clear and unique understanding of what BPM is and what is required to become a process-oriented organization (Paim et al. (2008)).
2.2 What is BPM and its Definition

There is difficulty in understanding what BPM is because there are several existing definitions available (Ravesteyn and Batenburg (2010)). Therefore, it is important to research the existing literature on BPM extensively to obtain a clear understanding of BPM to allow further investigations into the topic itself. The reviewed literature is not meant to be a complete review but can be seen as representative and including the most important points for a holistic definition of BPM. Furthermore, this section highlights the steady development of the definitions of BPM themselves.

Trkman (2010) and Paim et al. (2008) define BPM in an applied fashion which is that BPM enables an organization to significantly increase productivity and improve core activities such as manufacturing. Borch and Batalden (2015) add to this view that BPM strives to optimize all of the value-creating activities of a firm. Other researchers define BPM more generally as a management concept or technique or as a way of managing operations and the organization itself (Aparecida da Silva et al. (2012); Rahimi et al. (2016); Ravesteyn and Batenburg (2010); Smart et al. (2009); Vom Brocke, J. and Rosemann, M. (2015); vom Brocke et al. (2016)). The broader definition of BPM as a management concept extends the one given by Trkman (2010) and Paim et al. (2008) by not only focusing on core activities and increased productivity but also taking into consideration a holistic
approach focusing on every business area and the overall management. However, BPM is also not only a management technique or concept. Lederer Antonucci and Goeke (2011); Filipowska et al. (2009); vom Brocke et al. (2016); Ravesteyn and Batenburg (2010) additionally mention the importance of communication between business process (expertise) and IT as well as between management and IT. Chong (2014) highlights the importance of integrating IT when he defines BPM as a “structured method of understanding, documenting, modelling, analyzing, simulating, executing and continuously changing end-to-end business processes”. An end-to-end process is a process reaching from, for example, a customer demand until its satisfaction. Aparecida da Silva et al. (2012) and Lederer Antonucci and Goeke (2011) also highlight “end-to-end” processes in their BPM definitions but additionally point out the ability of BPM to gain an operational competitive advantage by transforming business efforts into measurable, integrated cross-functional activities. Ravesteyn and Batenburg (2010) extend this picture by two important activities, namely innovation and controlled business processes. When including innovation and controlled business process, the important link to IT falls into place. Especially in design or modeling, the documentation and control of business processes relies heavily on IT support for an efficient execution.

vom Brocke et al. (2016) also mention the importance of taking into consideration the “day-to-day management of single business processes” next to the management concept and techniques for operations. This is an important point that demonstrates the holistic view of BPM covering all activities an organization performs from a high level, such as managing operations following a strategy, to a low level, for example executing single processes to achieve a set goal. However, BPM is not easily implemented nor is it easily followed as discussed in the definition provided by Vom Brocke, J. and Rosemann, M. (2015). Vom Brocke, J. and Rosemann, M. (2015) acknowledged the importance of approaching BPM “as a program of work on a project-by-project base.” Paim et al. (2008) furthermore mention the requirement of “significant changes in organizations managerial, and particularly cultural practices” when implementing BPM.
To summarize the complexity of the definitions above, BPM can be seen nowadays as a combination of different definitions found in literature. For the following work, BPM is defined as a way of effectively managing processes in an organization at both a high-level (process framework, strategy, operations) and low-level (operational, execution, workflow) to create end-to-end customer value, organizational excellence and competitive advantage by modelling, implementing, innovating, improving, measuring, analyzing and documenting business processes by allocating all relevant resources and combining management tools with IT tools (Aparecida da Silva et al. (2012); Chong (2014); Trkman (2010); Vom Brocke, J. and Rosemann, M. (2015)).

For a thorough understanding of this definition there needs to be a well-defined understanding of the term “process”. Trkman (2010) defines a business process as a “complete, dynamically coordinated set of activities or logically related tasks that must be performed to deliver value to customers or to fulfill other strategic goals”. This definition is synonymous with the one presented in Borch and Batalden (2015). Paim et al. (2008) use again a more production related view on processes saying that a process is the traversing of goods or information in an organization from supplier to customer. The focus hereby is on the value of creation, which often occurs horizontally in an organization. On the other hand, Smart et al. (2009) use a broader definition stating that every organization follows certain processes automatically by saying these are “the way things get done”. This definition leaves a lot of room for interpretation. Unlike the first definitions stated above from Trkman (2010) and Borch and Batalden (2015), the definition provided by Smart et al. (2009) gives no guidance as to what to focus on when trying to map or define processes. Although Smart et al. (2009) complements his definition by viewing processes as “strategic assets”, his definition is still lacking clarity of what processes are. It does however throw an interesting view on processes as a strategic asset and highlight the importance of managing processes for a company.

Given the different definitions of a process, as outlined above, the resulting definition of a process in this work is a composite definition from Borch and Batalden and Trkman: A process is a repeated, complete, dynamically coordinated set of activities or logically related tasks which, if designed and executed in the right manner, lead to achieving defined business outcomes, reaching strategic goals, delivering value to customer and supporting internal operations.
2.3 Attributes of a Process Oriented Organization

Looking at literature, the term “process orientation“ or “process driven organization“ are often mentioned when talking about BPM. Business Process Orientation (BPO) is another key term often referred to meaning the effort, which is required to make business processes the main base for organizational and strategical structuring and planning Kohlbacher and Gruenwald (2011). BPO is an important pillar for BPM and can be seen as the platform for any BPM approach as any process orientation means the application of the concept of BPM Kohlbacher (2010). There are three key elements of BPO namely “process management and measurement“, “process jobs“ and “process view“ McCormack et al. (2009). Kohlbacher (2010) identified seven dimensions of process orientation that extend the three previously named elements of BPO:

1. Design and documentation of business processes;
2. Management commitment towards process orientation;
3. The process owner role;
4. Process performance measurement;
5. A corporate culture in line with the process approach;
6. Application of continuous process improvement methodologies; and

These seven dimensions will be taken as the base for the research work when talking about attributes of process orientation as the model of Kohlbacher and Gruenwald is grounded in the findings of 152 organizations based in the Austrian machinery industry, covering also SMOs. The results are therefore perceived to have high validity and reflect the organization where the research takes place.
2.4 Why BPM?

Knowing the evolution, definition and attributes of BPM, obvious questions become what are the advantages of BPM and why has BPM been in such a constant spotlight over the past 15 and more years? One of the reasons can be seen in the adaptability of BPM theory. With its roots dating back almost a hundred years, BPM builds on a rich body of knowledge and sees constant transformation to face the challenges of the modern world. Vom Brocke, J. and Schmiedel, T. (2015) note that BPM as a driver for innovation in a digital world is getting more and more recognition. Similarly, McCormack et al. (2009) acknowledges the ability of BPM to propose innovation by improving management abilities. Especially in a globalized world, innovative solutions lead to competitive advantages that allow organizations to strive for the invariable goals of growth, maximizing returns and increasing productivity Grover, V. and Kettinger, W. J. (2000). Another major advantage of BPM is that it has been reported to result in an increase in flexibility and agility of an organization to adapt to faster changing economic environments and market conditions Ahadi (2004); Liu et al. (2009); McCormack et al. (2009)). For survival and profit reasons, it is important for an organization to keep pace in such an increasingly globalized world (Smith and Fingar (2003)). The process-oriented approach of BPM can enable a company to achieve the required versatility to adapt to environmental changes by helping an organization to run more efficiently. Delivering customer value while increasing operational performance through capitalizing on IT and management methods to allocate resources and activities is another strength seen in successful BPM (McCormack et al. (2009); Paim et al. (2008)).

In the literature, the most widely cited benefits for an organization when implementing and integrating BPM are higher product- and service quality; higher customer satisfaction and delivered customer value; a reduction of cost while increasing sales, resulting in higher profitability and company value; reduced (process) cycle times; an increase of product and process quality; better transfer of information enabling faster decision making by also assigning clear responsibilities; better measure and control of results; enhanced prediction of costs, performance and goals and better achievement of set goals. (Ahadi (2004); Chong (2014); Hinterhuber (1995); McCormack et al. (2009); Schmelzer and Sesselmann (2008); Seethamraju and Marjanovic (2009)). Paim et al. (2008) also mentions the ability of BPM to overcome the shortfalls of functional management in regard to flow of information and objects by reducing the hierarchical structure and modifying it with a process enabling structure.

Kohlbacher (2009) performed an empirical exploration on the outcome of BPM in 44 more or less process-oriented firms operating in the Austrian metal and ma-
chinery industry having at least 50 employees. To gather data, personal interviews were conducted with one executive of each firm. The findings of this research highlighted a total of 19 perceived effects of BPM. Figure 2.2 shows the results of the study by weighting the interview statements over the number of mentions. The three most important points of Kohlbacher's research, namely better transparency, clear responsibilities and higher efficiency, have all been mentioned by previous researchers. As a result, this case study showed broad but not perfect agreement with other studies regarding the benefits and advantages of BPM.

Conversely to the study by Kohlbacher (2009), Ravesteyn and Batenburg (2010) found in their study, that increased flexibility and adaptiveness of their organizations is a clearly perceived benefit of applying BPM. Using only these two examples, one can see the complexity of the field and the difficulty of generalizing. The limitations of the studies have to be taken into consideration looking at sample size, industry, environmental factors, quantitative statements and many more, as most of the effects are solely perceived to exist by the users of BPM and qualitative analysis of the effects are seldom done and hardly possible. Also, the organization itself needs to be considered when looking at perceived benefits along with a BPM initiative, the so called organizational context (vom Brocke et al. (2016)).

Taking all of the advantages for an organization in applying BPM into consideration, implementation of a process-oriented approach appears to be necessary for any organization to stay competitive and gain a competitive advantage. However, according to research 60-80% of BPM initiatives failed to deliver the desired results (Trkman (2010)). This suggests that there are many pitfalls on the way to becoming a process-oriented organization.
Figure 2.2: Study results of Kohlbacher (2009) - Perceived effects of BPM
2.5 BPM for Small- and Medium Sized Organizations

It is particularly important for large organizations to adopt a process-oriented approach. The increased transparency and process control that can be achieved applying BPM can aid the organization in identifying weak spots and improving business on a daily basis. As BPM is so essential to large organizations, that is where research has traditionally primarily focused on. SMO's are more or less left behind (Chong (2014)). Chong (2014) also acknowledges that the applicability of BPM paradigms to SMO's is less important compared to large organizations, due to their inherent dynamic and flexible nature they incorporate, which is again contradictory to the study findings in Ravesteyn and Batenburg (2010), saying BPM can increase flexibility within an organization and does not limit flexibility. Nevertheless, they can highly benefit from BPM. This applicability and benefits for SMOs are evidenced in some studies described by Chong (2014). By investigating into the Australian wine industry, five major barriers implementing BPM in SMO's has been identified where lack of resources and time are the two most important ones. The studies of Kohlbacher, presented earlier, also included SMO's as his definition of an organization was a number of employees above 50. A company having up to 50 employees can be described as a small organization, employee numbers reaching up to 250 employees can be seen as medium sized organizations and employee numbers beyond 250 are considered to be large.

2.6 Critical Success Factors, Enablers and Barriers for Successful BPM Initiatives

The overarching question when looking at organizations wanting to reach higher process orientation is “how to succeed in conducting a BPM initiative?“ With 60-80% of the initiatives failing, effort, time and resources are all at stake. Especially for SMOs this wasted effort can become a determining factor in whether or not these organizations are able to stay competitive and yield profit. Looking at previous research, much work has focused around the implementation of BPM initiatives, identifying enablers, barriers, limitations, CSFs and preconditions required for success. With BPM being such a complex topic and organizations varying in many internal and external factors, the identified factors all rely on their own frame of references like sample size, conformity in regard to e.g. industry, environment and location and the respective theory and methodology used.

Before talking about the identified factors, a common understanding about what a successful BPM implementation is, needs to be defined. This is important
because of the different reasons BPM initiatives can be started. Success therefore differs depending on the reason and the measures of the initiative. Trkman (2010) gives a general definition of successful implementation by saying that “BPM is successful if it continuously meets predetermined goals, both within a single project scope and over a longer period of time”. The development of BPM out of the three streams (business management-, quality control- and information technology) lead to vastly different research when looking at successful BPM implementation. Depending on the focus of the research on one of the streams, the identified factors might vary compared to focusing on another stream. Most of the previous research in the early twenty-first century has been mainly focusing on successful implementation of Business Process Reengineering (BPR) initiatives (for a detailed overview see Chong (2014)). Later research broadened up trying to show a more holistic picture by not only focusing on one discipline of BPM and their respective CSF.

Following a holistic view on BPM, many factors for conducting successful BPM initiatives have been found in recent research. Figure 2.3 shows the plethora of factors in the conducted literature research. The factors have been divided into five sub-topics:

- Enabling factors
- Preconditions
- (Common) Failure Factors
- Critical Success Factors
- Barriers of implementing BPM

Most of the literature analyzed has focused on the barriers and critical success factors seen by the number of single links in the mind-map. Other factors, such as preconditions or enablers for successful BPM implementation have only been found in limited research.

Many of the single factors have been mentioned in different research by different people leading to a conclusion, that some points are common for a successful BPM initiative. Looking, for example, at the “Expert knowledge”-factor, it has been mentioned independently by five different sources.

There are several different frameworks being used and developed in different research in order to establish a more structured and rigorous view. vom Brocke et al. (2016) is focusing on the specific context of an organization when looking at CSFs. Trkman (2010) on the other hand tried to link the CSF with three different theory streams, namely contingency theory, dynamic capabilities and task-technology fit which are all equally important a successful BPM initiative. For example, if there is no fit between IT and business processes (task-technology fit) or if there
is no fit between the business environment and business processes (contingency theory), the BPM initiative will fail. Bandara et al. (2005) reduced his framework to project specific factors that influence any BPM approach and modelling related factors, factors that relate directly to the design and visualization of the processes. Another approach taken by Bandara et al. (2007) was to divide the barriers for successful implementation into “strategic”, “tactical” and “operational” points. For an in-depth research regarding CSF in the public sector, Syed et al. (2018) helps in identifying them. The factors mentioned in this study can again be found in Figure 2.3.
Figure 2.3: Factors for successful BPM initiatives identified in literature
2.7 The Role of Culture in BPM

According to the Oxford Dictionary, culture is defined as “the ideas, customs, and social behavior of a particular people or society” (Oxford Dictionary (Accessed 17.05.2018)). Putting these definitions in more general terms, culture can be seen as a group sharing the same values that are expressed in visible structures and actions (vom Brocke and Sinnl (2011)). For defining elements of culture, the well-known iceberg model, according to Figure 2.4, is commonly used (Selfridge and Sokolik (1975)).

![Figure 2.4: Iceberg model of cultural elements (taken from Schmiedel et al. (2015))](image.png)

For an organization, the company values are the underlying basis that are manifested within observable and visible elements, that is, the actions and structures. While the mission statement publicly expresses the observable elements and structures of an organization, the underlying values that actually exist in the organization do not necessarily have to reflect those goals (Schein (2004)).

The concept of culture always refers to a specific group (Leidner and Kayworth (2006)), therefore culture exists in an organization, nation, family or simply a group of friends. Dealing with a variety of different groups which can be intertwined within a larger group show the complexity of culture. Hofstede (1984) identified four cultural dimensions to management and planning that do not only refer to organizations but also to much larger groups like societies or nations.
• Individualism versus collectivism - how well are individuals integrated into groups?

• Large versus small power distance - what does the inequality in a certain domain look like?

• Strong versus weak uncertainty avoidance - what is the feeling in a society towards an unknown future?

• Masculinity versus femininity - how are emotional roles divided?

This four dimensions were later extended by Hofstede (2011) to include another two dimensions.

• Long-term versus short-term orientation - what is the focus of people's efforts?

• Indulgence versus restraint - how are human desires of enjoying life handled?

While the dimensions identified by Hofstede (2011) were aimed at large groups, (i.e. nations) the research had and still draws a lot of attention in other fields like business and communication, where the group size tends to be smaller. Nevertheless, the six dimensions can be used as a starting point for analyzing culture within an organization to better understand internal values and problems that might occur when implementing BPM due to cultural aspects.

2.7.1 BPM-Culture Model

For BPM initiatives the term “organizational culture“ is of particular importance. Organizational culture has not only been mentioned in prior research as being a barrier towards a successful BPM initiative, it has also identified being one of the CSF (Bandara et al. (2007), Lederer Antonucci and Goeke (2011), Vom Brocke, J. and Schmiedel, T. (2015)). vom Brocke and Sinnl (2011) developed a framework that links BPM and culture (BPM-Culture-Model) that consists of three main concepts namely BPM culture, cultural context and cultural fit which will be explained in the following paragraphs.
BPM Culture
BPM culture refers to a supportive culture that works toward reaching BPM goals or a “to-be” culture that develops as a result of following a BPM initiative. There are four different values identified that describe a BPM culture (Schmiedel et al. (2015)).

- **Customer orientation** the responsiveness and proactive attitude towards the needs of the end-to-end process output recipients
- **Excellence** reaching high process performance through continuous improvement and innovation orientation
- **Responsibility** process decisions have to be accountable and commitment towards process objectives has to be existent
- **Teamwork** the organization needs a positive attitude of the employees towards cross-functional collaboration.

The difficulty of these four different values held in a BPM culture are their contradictions and trade-offs. When focusing on the “excellence“ part, meaning improving internal processes there is automatically a trade off to the “customer orientation“ value because customer orientation requires flexibility and adaptability while excellence usually requires repetition and time. The competing nature of the values are a possible explanation why they so hard to implement (Schmiedel et al. (2015)).

Comparing the four values of a BPM culture with the above described cultural dimensions by Hofstede, one can see some similarities. Long-term versus short-term orientation, individualism versus collectivism and large versus small power distance are more or less directly addressed within these four values identified by Schmiedel et al. (2015) by the value of teamwork, customer orientation and responsibility.

Cultural Context
Cultural context refers to the existing cultural environment in the organization termed the “as-is“-culture. Analyzing and understanding the organization is therefore important to know what the cultural values inside the organization are. It is important to know the organizational culture to identify differences between the own culture and a BPM supportive culture. The cultural context can serve as a starting point to understand what is needed for successfully conduction a BPM initiative from the cultural point of view (vom Brocke and Sinnl (2011)).
Cultural Fit
Cultural fit refers to the congruence between BPM culture and cultural context. This fit is according to vom Brocke and Sinnl (2011) crucial for a BPM initiative to be successful. To bring both the BPM-culture and the cultural context in line, measures and actions have to be defined as to how to achieve this particular goal. Research is currently lacking to give input on how to approach this adaption of the two cultural aspects as many internal and external variables influence the needed BPM culture and the existing culture as well.

![BPM culture model](image)

One important point to notice is that the BPM culture and its values are not generally applicable to each and every organization alike. With the organizational culture supporting the four values of the BPM culture BPM implementations can be achieved more easily as each of the named dimensions reflect the ideas of process orientation to some extent. What there is exactly needed from an organization to finally being able to implement a BPM initiative successfully cannot generally be identified but starting with the above mentioned values can be seen as a good starting point to achieve an organizational culture that supports a BPM initiative.
When putting vom Brocke and Sinnl (2011) framework into practice, five major guidelines have been identified (Schmiedel et al. (2015)). Firstly, the organization needs to be aware of the variety of cultural aspects that exist so that the management approach can be developed to fit the organizational culture and support the achievement of management goals. Secondly, it helps to identify the degree to which the organizational culture reflects a BPM culture. Thirdly, the organization needs to assess its own position towards BPM culture by accurately determining the values of the organization. Fourth, using critical reflection on BPM culture or the assessment tool, the effort to achieve the required cultural change can be assessed based on the “as-is” situation of the organization. Finally, the measures that are required to develop a successful BPM culture can be derived.

2.8 Problems with BPM

Looking at Figure 2.3 immediately shows the problem for an organization when trying to become more process oriented. With the five sub-topics being interconnected, a holistic approach for a successful BPM initiative would require taking all 5 factors into consideration resulting in an immense effort for an organization to even start a BPM initiative and later, follow up on it. While this might be possible for large organizations with access to more resources, SMOs would struggle to do so to implement BPM. The factor highlighted in red in Figure 2.3, case specific CSFs, might therefore be the most important for SMOs. Trkman (2010) and vom Brocke et al. (2016) identified the need for case specific CSFs, complaining about the development of the current Business Process Management Body of Knowledge for a business context that focuses on clear-cut and structured processes to improve cost, time and quality. They also say that it is impossible to generalize success factors which are applicable to every organization or industry. As organizations are inherently unique, the essential factors are different for every organization and the most important point is that the factors need to explicitly fit each organization.

Smart et al. (2009) identified a similar problem. In his research he mentions a lack of common consensus in literature regarding key characteristics of BPM principles. This is reflected in the size, repetitions and linkages between single sub-topics in Figure 2.3. Aparecida da Silva et al. (2012) noticed another problem. While process orientation improves process performance, the management complexity equally increases. Moving from a functional approach with clear lines of responsibilities, the process-oriented approach might lead to an overlap in responsibilities and as such, redundancy in a system that the required resources for that. To solve this problem extensive knowledge of BPM is required.
2.9 Theory versus Practice

Further problems are the application of BPM theory to a real-world situation. Chong (2014) noticed a gap in research saying that business success and BPM research cannot be explicitly linked. Also, Trkman (2010) made a similar criticism saying that no direct correlation between BPM and business success have been identified so far and existing research only recognizes the perceived benefits. In another study, Paim et al. (2008) investigated the differences between the conceptual importance and the practical importance of BPM by doing a literature review of process management tasks and comparing it with answers of a conducted survey. Figure 2.6 shows the results of his study and the gaps identified between a theoretical and practical view on BPM.

![Figure 2.6: Comparison between conceptual and practical view (Paim et al. (2008))](image)

In support of BPM, Smart et al. (2009) tried to develop a framework that connected activities with BPM success. The framework was based on BPM literature and was validated by semi-structured interviews. It showed, that many of the points in the framework have been agreed upon but 49% of the overall content of the interviews did not relate to the five themes they have identified in their framework. Therefore, the framework failed to fully represent practical application and bridging the gap between BPM theory and practical implementation benefits has not been successful.
Chapter 3

Methodology

As said before, the aim of this thesis work is to examine the problems a specific SMO is facing to reach higher process orientation. To follow up on the literature review, the specific research data collection mainly used will be a subject centered approach (Talja (1999)). The investigation is based on a case study of a German organization working in the automotive industry. The main type of work can be described as high knowledge work, acting as a consultant and developer of several products related to increasing car performance and electrification of vehicles. Over a four month period, data was collected in different departments and from various job positions through semi-structured interviews with thirteen employees within the organization. In addition, pre-existing process related data (mainly documents regarding process description and flow charts) were analyzed to identify the “as-is” situation of the organization. These additional documents have only been used to identify the lack of process orientation within the organization to support the investigation and problem definition. With the aim of the thesis identifying existing problems, the further use of additional data is not taken into consideration and is therefore not further described. The use of questionnaires is not utilized due to the perceived variation in knowledge of BPM, which would potentially lead to insufficient and incomparable results (Ravesteyn and Batenburg (2010)).

3.1 Case Study Justification

To decipher the credibility of the case study, an evaluation has been completed according to the four points mentioned by Benbasat et al. (1987). The format of research questions adopted will differ greatly and lend significance to contemporary events due to the unique nature of individual organizations. Additionally, as a result of the ungovernable nature of variables outside the organization, external
studies of the natural setting are insufficient. An organization and its dynamic is best understood from within the organization itself. Therefore, following Benbasat et al. (1987)'s lead, a case study is considered useful for answering the proposed research questions.

As identified by Eisenhardt (1989), one of the many advantages to a case study approach is the integral ability to focus on the dynamics of single settings and their unique understanding. When attempting to answer “why” and “how” questions of a specific topic, case studies are also particularly beneficial, as is the current research which attempts to understand a particular problem within a specific context (Yin (2009)). As case studies typically combine data collection methods, they are applicable to this particular research due to analysis of existing data from the organization and data collected by interviews. vom Brocke et al. (2016) mentioned the need for more “situational research“ taking into account the context of the organization. Using a case study can extend the BPMBOK by finding novel ways for a SMO to identify and address their problems of reaching higher process orientation in a tailored manner.

### 3.2 The Interviewee’s Profiles

The profiles of interviewees differ in terms of job position and responsibilities, education, length of employment, department, and previous employers. Working in the same organization, the variation in interviewees profiles allow the current research to attain a holistic understanding for the existing problems on all levels of work and departments. As much research only focuses on top management and BPM experts for data collection, utilizing a more heterogeneous sample dispersed throughout the organization better conveys the differences between the execution and planning phase of BPM. Additionally, the differences in previous employer relationships is considered as an important factor, as many employees had previous relationships with OEMs and had first-hand experience with the procedural structure of large organizations.

The sample size is chosen to be thirteen in total, based on Guest et al. (2006)'s findings on data saturation. According to Guest et al. (2006), a sample size of twelve interviews is leading to sufficient data saturation of around 90%, meaning that 90% of the findings have been mentioned in the first twelve interviews conducted. As the chosen sample is heterogeneous within the company, a sample size of thirteen, containing at least two people in the same department, should lead to comparable results with regards to time and personality confounds. Categorizing by job position, two of the interviews are conducted with upper management, five with middle management, and eight with workers. The interviews take place in both the parent organization and subsidiary, due to the subsidiary’s close connec-
tion with the parent organization.

Out of privacy issues and the possibility of recognition, the interviewees profiles do not show the exact data. The size of the firm could allow for tracking of interviewees by giving too much information. Therefore, only the given interviewee ID and duration of employment at the organization (which is split into “less than one year“, “between one and three years“, “between three and ten years“ and “more than ten years“) is displayed in Table 3.1. The particular division in employment duration is constructed to adequately categorize the perceived time-line needed to understand an organization. While people who work at an organization for less than a year are still learning how things work, people who work for an organization for more than ten years will most likely have seen a broader spectrum of things that happen and might be more inclined to accept the status quo.

Table 3.1: Interviewees’ profiles

<table>
<thead>
<tr>
<th>Interviewee ID</th>
<th>Time at the organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 1</td>
<td>Less than one year</td>
</tr>
<tr>
<td>ID 2</td>
<td>Between three and ten years</td>
</tr>
<tr>
<td>ID 3</td>
<td>Between three and ten years</td>
</tr>
<tr>
<td>ID 4</td>
<td>Less than one year</td>
</tr>
<tr>
<td>ID 5</td>
<td>Over ten years</td>
</tr>
<tr>
<td>ID 6</td>
<td>Between three and ten years</td>
</tr>
<tr>
<td>ID 7</td>
<td>Over ten years</td>
</tr>
<tr>
<td>ID 8</td>
<td>Over ten years</td>
</tr>
<tr>
<td>ID 9</td>
<td>Between three and ten years</td>
</tr>
<tr>
<td>ID 10</td>
<td>Less than one year</td>
</tr>
<tr>
<td>ID 11</td>
<td>Between three and ten years</td>
</tr>
<tr>
<td>ID 12</td>
<td>Over ten years</td>
</tr>
<tr>
<td>ID 13</td>
<td>Over ten years</td>
</tr>
</tbody>
</table>
3.2.1 The Different Departments and Knowledge

Interviewees for the current research were selected from within core process areas. For the examined organization, the core processes are product development, sales, and aftersales. The justification for this focus is the comparability and overlap between the subsidiary and parent organization, as they both share these same core processes, the availability of previously existing process documents, and a similar level of effort devoted to implementing a process-based approach.

It can be argued that by focusing solely on core process areas, one does not obtain a holistic view of the organization as the whole organization is not taken into consideration due to several missing, supporting divisions. However, conducting interviews with employees working in core process areas, the most important and value creating processes for the organization are examined efficiently which is of paramount importance due to existing time constraints. Furthermore, by conducting interviews within the upper- and middle management, their views and process areas are also covered in addition to the core processes. Support processes are regrettably beyond the scope of this study however following upon the limitations of these processes will be comparatively trivial when examined with the knowledge gleaned from the core process areas.

Unlike workers, upper management and middle management are considered to have a heightened awareness of processes, and an understanding of the importance of a process-oriented organizations. This is another important variable for the research as BPM expertise and user training has been highlighted in many previous researchers to be one of the influential CSFs. Knowing about the different expertise of the planning and execution level leads to important insights on how to successfully implement processes.

3.3 Interview Layout

The interview is divided into three parts. The first part, focusing on the interviewees, inquiries about their background, current responsibilities, and tasks, which also allows for a rapport building with the participant Jacob and Furgerson (2012).

The second part targets the individuals knowledge of BPM. As seen in Figure 2.3, lack of expertise and knowledge is a failure factor, a barrier, and a critical success factor for successful BPM initiatives identified by many previous researchers. Not only should top management have certain BPM knowledge, but also employees executing the processes. This part of the interview aims to highlight a gap in existing BPM knowledge between the different hierarchical levels, or even the individuals' within the levels itself. The knowledge of BPM is also a necessary precondition for being able to evaluate why recent efforts have not been successful.
The third part examines individual employees work and requirements to a successful process implementation. This means the part specifically focuses on how work is performed, the process orientation of said work, the knowledge about the existing process landscape, and the challenges of implementing those processes. The process orientation of the performed work is deciphered from open-ended questions. Because the process landscape is available for every employee via the intranet, missing knowledge about the existence can immediately identify a lack of communication and standard baseline of knowledge within the organization. When there is a void of knowledge pertaining to the landscape itself, the implementation problems would then not be within the process itself, but within the way of communicating and training individuals. If an employee has the knowledge, the closing questions are aiming to identify individual and personal factors that hinder or allow the implementation. Comparing the results with Figure 2.3, the current research takes into consideration the context of the organization by identifying organization and employee specific factors for a successful implementation.

3.4 Conducting the Interviews

As previously mentioned, the interviews follow a semi-structured method. Each of the interviews lasted for approximately 40 to 60 minutes. The variance in interview duration can be explained by the difference in the heterogeneous samples knowledge of BPM. Nevertheless, incorporating a malleable interview duration allows the researcher to explore the different opinions of interviewees and their perception while offering freedom to adjust questions spontaneously as the interview develops. This is possible through the questions, which are kept open-ended and made easily adaptable to the interviewees answers. It allows for the possibility of conducting a more in-depth analysis of the interviewees individual perceptions and experiences as they emerge throughout the interview.

Another reason to support the chosen method over standardized interviews is that according to Gorden (1975), differences in responses during standardized interviews are, “Due to differences among the respondents rather than the question asked.” Semi-structured interviews help assure that the context is equally comprehensible by every interviewee, by adjusting vocabulary and phrasing to compensate for individual differences (Louise Barriball and While (1994)). The interviews were held in German to avoid misunderstandings that could arise from language barriers. For the later translation into English it was important to not only take protocol of the answers but to understand the meaning. This has been achieved by recording the interviews which allowed a precise description of the given answers. The translation of the answers has been to reach “inexact equivalence” because “exact equivalence“ is impossible to achieve and inexact equivalence is perceived
to be satisfactory for extracting the meaning of statements (Halai (2007)). For reaching inexact equivalence, the language proficiency of the researcher has been sufficient. Therefore, the use of translators could be avoided as they result in the “most technical correct translation” and are non-beneficial in this case (Squires (2008)). To obtain the best possible results of the interviews itself, the structure for conducting interviews presented in Jacob and Furgerson (2012) was used as guidance through the whole interview process.

One problem identified while conducting the interviews is the unavailability of private, available meeting rooms. Due to this problem, the interviews were mostly conducted within the office, leading to many disturbances by other employees asking questions and interrupting. This sometimes caused a loss of the red line by the interviewee and led to an increased effort by the researcher to guide through the process and get interviewees back into the topic. Regardless, the results are considered not to be influenced by the interruptions as no set time frame (which would have limited the quality of the answers) was given beforehand, even if the interruptions lead to longer interviews.

### 3.5 Interview Results and Analysis

The results of the interviews are split into two main sections for the empirical analysis. First, there is the analysis about the pre-existing BPM knowledge of the different interviewees, which is important for setting the stage for the following discussion. Differences in knowledge change the way an individual perceives the process orientation of daily work. Afterwards the analysis of the latter part of the interviews takes place. This is where the given answers regarding process orientation and implementation of processes are linked to the literature review and compared to the established mind-map. The current analysis follows a discourse analytical approach which implies that, “variability and inconsistency in explanations is not seen as a potential source of error“ (Talja (1999)). Different answers for the same questions can then be taken into consideration and “different truths“, which result out of the variables within knowledge or job positions, can be accounted for.

Comparing the results of the interviews with findings in the literature, the total number of interviews conducted was sufficient to reach saturation amongst all interviewees. However, when comparing the single groups of interviewees, i.e. upper management, middle management and staff level, saturation is not reached as the sample size within the single groups was too small to cover all possible viewpoints and factors comprehensively. The opinions expressed by individuals within the different groups varied widely, especially in the upper management as only two interviews were conducted. Based on the findings of initial interviews,
a second or even a third round of data collection would have been beneficial in order to reach saturation within particular groups of interviewees and the number of interviews conducted in total. As there is no differentiation in the analysis of the results between the different groups out of privacy issues, the chosen method for interview analysis and data gathering is seen to be validated as saturation is existent between all interviewees.

3.6 Ethical Concerns

DiCicco-Bloom and Crabtree (2006) mention four distinct ethical issues related to data collection using interviews:

- Reducing the risk of unanticipated harm
- Protecting the interviewees information
- Effectively informing interviewees about the nature of the study
- Reducing risk of exploitation

The first point is considered to not directly affect the underlying research. As the interviews evolve around the individual’s personal way of working (and the structure of the organization itself), the degree of intimate information which could cause personal harm is reduced compared to an interview containing highly personal questions. The second point, “protecting the interviewees information“, is of special importance. As the organization is family owned with many employees working for several years, employees know each other and so does the CEO and upper management. Sensitive information like complaints, unhappiness about the situation, or disagreement with management positions need to be kept private. To ensure this, no names or departments are mentioned throughout the research. Considering this point can lead to more truthful answers as the interviewees identity is protected. To also protect the identity of management, a differentiation into statements given by management and employees is not highlighted explicitly. Also, data that has been generated throughout the study is double checked to contain no personal information. Data to understand the interviewees background and current job position is erased in the transcribed interviews.

Point three is mitigated by the structure of the interviews. By explaining the reason for the interview in detail, interviewees know exactly what the aim of the research is and why it is conducted. Also, questions that come up during the interview process can be answered directly, due to the semi-structured nature of the interviews. Interviewees were also given the chance to look into the transcribed interviews to see if there is anything that does not fit.
To reduce the possibility of the fourth and last point, a section of the master thesis is dedicated to the individuals taking their time to contribute to the study, “to acknowledge the contributions that respondents make to the success of the research” (DiCicco-Bloom and Crabtree (2006)).

By protecting the interviewees data and only referring to the individuals via an ID, this work is considered to have no influence on the organizational- and societal level within the organization. The thesis work does not aim to show short-comings of the organization but aims to help the organization in pursuing it’s goals in reaching higher process orientation. Instead of interpreting interviewee statements as critique of practices within the organization, they shall be seen as a way to express the current short-comings and be considered as valuable input.

### 3.7 Bias

The Oxford Dictionary defines bias as: “A concentration on or interest in one particular area or subject”; “A systematic distortion of a statistical result due to a factor not allowed for in its derivation” (Oxford Dictionary (Accessed 13.05.2018a)). Smith and Noble (2014) give three reasons for understanding research bias. First, bias exists in every research and is difficult to eliminate. Second, bias can occur at each stage of the research process and third bias impacts on the validity and reliability of study findings and misinterpretation of data can lead to practical consequences.

In a qualitative study, interviewees and researchers can be object of bias towards the conducted study. With bias occurring in every stage of research, there are different possibilities to prevent it. Pannucci and Wilkins (2010) identify different types of bias and how to avoid them. Even if the research is grounded in medical application, the points regarding research design, participant selection and data collection are used due to their perceived general applicability.

A good way to minimize bias is by “outlining potential sources of bias” to “enable greater critical evaluation” (Smith and Noble (2014)). Looking at the research design, the research questions are chosen to lead to a practical use as the research work takes place in a particular organization with the organization aiming to profit of the work. Bias towards participant selection is taken care of by carefully selecting interviewees working in different departments to reduce the likeliness to influence each other. Data collection bias is possibly the hardest one to address. By carefully structuring the interviews avoiding typical “yes” or “no” questions and trying to keep the questions similar to elicit the same information, bias is tried be kept to a minimum. When it comes to the analysis, a complete picture of the gathered data is provided by using a discourse analytical approach, not only data that confirms the research questions or lead to new insights.
Chapter 4

Empirical Analysis

The empirical findings of the interviews will be presented in the following part using a discourse analytical approach. The set of questions have been organized to get a personal view of every participant on their understanding of the organization, BPM, the existing process landscape and what it needs to implement processes for oneself. For the empirical analysis interviewee quotes that best represent the overall statements were chosen. The analysis of the data is following the approach described in Chapter 3.5 Interview Results and Analysis.

4.1 Organizational Culture

The fact that BPM is a highly specific approach that needs to be adapted to the specific requirements of an individual organization has been the object of former research (Trkman (2010)vom Brocke et al. (2016)). It is therefore necessary to understand the organization before applying any BPM improvement efforts. The influence of the organizational culture to BPM success has also been widely acknowledged (vom Brocke and Sinnl (2011)). Furthermore, the individual view of the culture within the organization is important for understanding the perceived problems of the organization in becoming more process-oriented and for the implementation of a process structure instead of a functional structure. As mentioned before, it is also important that the organizational culture fits a certain BPM culture that allows BPM implementations to work. The organization considered in this study is described by a vast majority of interviewees as being clearly functional with departments working more or less independently and centered on the CEO.

Every participant described the culture of the organization as characterized by its longstanding active participation in motorsports. The passion for cars of many
employees resulted in a “can do” attitude and a performance-oriented environment within the company. Individual seven (ID7) described the culture by saying:

“There is a lot of pressure on individual employees to deliver performance and high-end products. The organization demands a lot from every employee and the CEO communicates this point clearly.” (ID7)

This statement reflects that the organization is based within the motorsport industry, where high performance and a dynamic environment are required to be continually competitive and successful which is also reflected in day-to-day work. The clear communication of the CEO with respect to the pressure and high workload complement the influence of motorsports in daily business. In addition to this, innovativeness and risk-taking is synonymous with motorsports and is reflected in the organization culture leading to the organization experimenting with unconventional avenues to expand their current business. Linking the statement to Hofstede (1984)'s six dimensions, uncertainty avoidance can be described as being low due to the experience of the organization to fast changing environment from motorsports. The engineering and motorsport background also lead to the organization having a clear masculine characteristic.

The dynamic character of the organization was a common thread throughout all of the interviews but was regularly discussed in conjunction with a lack of structure. Bridging the gap between flexibility and adapting to customer requests and a structured way of working is one of the difficulties identified by Schmiedel et al. (2015). Organizations need to address this issue by finding a solution that supports both flexibility and structure. In particular, the subsidiary, which had been operating for almost four years before being outsourced, is lacking in general structure. The interviewees within the subsidiary justified that the lack of structure as being the result of the business being new and trust that, in time, a structure will develop. However, what this demonstrates is a lack of effort in working toward a higher process orientation as the subsidiary is a perfect opportunity to disengage from the functional structure of the parent organization. Instead the subsidiary still remains functionally oriented. The value of “teamwork” can therefore be described as being low as cross functional collaboration in a functional structure is hindered.

ID8 mentioned that due to the fact that the organization developed out of a garage that specialized in horse wagons and later cars there is a missing link between the product and process that would be inherent to the likes of an engineering company. The impact of this disjoint can be seen at present with projects having trouble stepping out of building prototypes to allow for development of products in larger quantities, as this requires a new way of operating due to stricter product requirements, higher development effort and finally a more structured approach.
towards development. The cultural value of (internal) “excellence“, Schmiedel et al. (2015) refers to, needs to be improved in order to achieve this goal.

Another interesting point is that the majority of the interviewees who possessed a technical background pointed out the focus of the organization on financial success and making profit, resulting in a lack of resources, saving money on the wrong end and promising projects not being conducted due to the unavailability of financial resources. Chong (2014) identified the lack of resources as the biggest limiting factor for SMO's for a successful BPM initiative. The existing high workload of employees and the perceived financial focus fit with Chong's findings.

When considering the factors required for a successful BPM imitative (Figure 2.3), a culture of being open to change is one of the most frequent factors identified in former research. After explicitly being asked about the organizations behavior towards change, the consensus was that structural change within the organization is very limited and difficult to achieve despite many attempts being made. The promotion of change often does not often find recognition with upper management and the need for it is questioned.

“The CEO thinking is: Why should we change our way of doing business and waste time if it is working well?” (ID 13)

“Sometimes business is better, sometimes worse but as long as we’re making profit we are doing well.” (ID4)

“The problem of the organization is the functional structure. Everything works in divisions and changing this is not possible. There is too much individual interest in keeping the structure.” (ID8)

All three statements indicate the perceived orientation that the initiation of change must come from the CEO or upper management and that they are reluctant to do so leads to a culture (Hofstede (1984)). When focusing on daily operations, the benefits of changing are always questioned as there are no short-term gains and experience with successful change projects among the interviewees was non-existent. Considering the organization here in light of Hofstede's six dimensions, there is a clear short-term orientation of the organization. Additionally, ID4 identified the lack of clear responsibilities as being among the difficulties in promoting change, elaborating that because no one is responsible for promoting and following up on change initiatives, they most likely will not be successful. Referring to the “BPM-culture model“, the statement indicates that the “responsibility“ value is low in the organization. ID13 on the other hand identified the reason for the organizations inability to change residing within the market- and financial situation. When the organization is growing and in a good financial situation change
is hindered because management actions are confirmed to be good, which again correlates to a culture which is short-term oriented. ID8 highlights the problem within the organization culture as upper- and middle management positions being largely filled by longtime employees. This statement was directly supported by ID10 who discussed the need for more fluctuation within the management level to allow the promotion of change more easily. Taking the identified high power-distance into mind and with longtime employees are more likely to keep the “status quo”, cultural change cannot be initiated by employees.

Looking at the “BPM-culture model”, the cultural context of the organization has been analyzed above using the six dimensions by Hofstede (1984). To summarize the “as-is” situation, the culture can be described by its hierarchy creating high power-distance, its short-term profit orientation, collectivism in the functional structure but being individualistic when it comes to collaboration between each of the divisions, low uncertainty avoidance and rather masculine. Change has been identified to be difficult to introduce and implement due to the cultural values.

Comparing the organizational culture with the “BPM-culture” by vom Brocke and Sinnl (2011), gaps between current organizational culture and the optimal BPM culture can be identified. First, organizational “excellence” by having high process orientation and continuous improvement efforts are not yet existing. Instead, the organization works in functional divisions. Second, the perceived “customer orientation” can be seen as rather high due to the flexible and dynamic nature within the organization. Third, the “responsibility” can be ranked low due to the missing responsibility and commitment of top management towards higher process orientation. Finally, taking the definition of vom Brocke and Sinnl (2011) for the value of “teamwork” as employees having a positive attitude towards cross functional collaboration, it can be seen as medium due to the functional structure. Observations of the attitude of employees towards cross-functional collaboration has been perceived to be existent. Overall, the “cultural fit” can be described as not being supportive for a BPM initiative due to the identified gaps above.

4.2 Individual Understanding of BPM

BPM was defined earlier as the effective management of processes on all levels to create customer value, organizational excellence and competitive advantage by having defined and controlled processes, allocating relevant resources and combining IT and management tools. Using this definition of BPM ensures a holistic view, covering an organization’s processes on a strategic level as well as an execution level in addition to defining clear goals. This definition also highlights the need for sufficient resources and the importance of IT and management techniques and tools. Looking at Figure 2.3, the major factors for successful BPM initiatives
are addressed by using this kind of definition for BPM.

As BPM knowledge, expertise and end-user training are also seen playing an important role for a successful BPM initiative, the individual understanding of the concept is of great value (Bandara et al. (2005); Chong (2014); Lederer Antonucci and Goeke (2011)). In general, a thorough understanding of any kind of problem, methodology or framework yields to better results by any participant, simply by knowing what exactly there is to do to reach a certain goal. To assess the interviewee’s individual understanding of BPM, to identify their preexisting knowledge and perceived advantages of BPM for an organization each interviewee was asked to define BPM. As there is no organization running without any kind of process, especially not the one where the case study takes place, every employee within the organization has practical intersections with processes even if not actively thinking or following any clearly defined one. Having this intersection allows every interviewee to explain process orientation and give his unique definition of BPM. It also allows them to identify advantages and disadvantages to the BPM approach as they see them.

4.2.1 Attributes of a Process-Oriented Organization

Process orientation is a central part of BPM and every organization should strive to improve it (Kohlbacher and Gruenwald (2011)). Similar to BPM as a whole, “process orientation“ is a general term leaving room for interpretation which enables adaptation of the term for a specific organization but also makes it difficult when trying to find a common ground for discussions and improvements.

ID1 defines the major attributes of a process-oriented organization as the following.

“A process-oriented organization has strictly separated and clearly defined working domains with their respective responsibilities and experts in each of the domains.” (ID1)

This is, in part, similar to the view of ID2 and is also in line with the third dimension of Kohlbacher and Gruenwald (2011), the “process owner“ role by having clear responsibilities. The highlighting of the “strict separation“ however is an indication for the missing understanding regarding the distinction between a functional- and process-oriented structure. While the functional structure only recognizes processes within single domains, the process-oriented structure focuses on cross-functional processes on all levels (Aparecida da Silva et al. (2012)). ID2 supports this functional orientation by clearly separating the tasks of pre-development and development as two distinct domains.

ID10 identifies the attribute of a process-oriented organization to be the following.
“Processes should not only be cross-functional, also across the company itself in all its hierarchy levels starting with the following of the processes on the management level alongside clearly defined responsibilities.” (ID10)

The view of ID10 is covering the second, third and seventh dimension described by Kohlbacher and Gruenwald (2011) namely “management commitment”, “process owner” role and the “process-oriented organizational structure”. Furthermore, ID10’s view shifts the focus from a functional to a process-oriented structure. This view is shared by ID4.

“Processes should work through different divisions, depending on the performed task.” (ID4)

The two statements explicitly demonstrate an understanding of what process orientation is and a process-oriented organization should be like. The first dimension of Kohlbacher and Gruenwald (2011), design and documentation of business processes, the corner stone of every defined process, was not explicitly mentioned by any of the interviewees. Instead ID3 mentioned:

“Processes often don’t need to be invented new. Already established processes in industry can be used as a valid base.” (ID3)

However, especially for SMO’s, the practice of designing processes needs to serve an efficient way of working to tackle the problems of resource constraints, which is an important limiting factor for SMOs identified by Chong (2014). Looking at the attributes of process orientation given in Kohlbacher and Gruenwald (2011), the interviewees mentioned four out of the seven dimensions explicitly. The dimensions that were not discussed by the interviewee were performance measures, continuous improvement methods and an organizational change culture in relation to a BPM initiative. The reason for not mentioning this attributes can be within the missing overall knowledge and experience of the subject as no performance measure or continuous improvement methods have been identified to happen in the organization.
4.2.2 BPM Definition

To further understand the interviewee's view, knowledge and understanding of BPM, their personal definition on BPM is central. Paim et al. (2008) acknowledged a practical focus on day-to-day operations within organizations. Focusing on everyday operations can be limiting to the importance of having a holistic view on the organization, especially on cross functional tasks reaching beyond an individual's division and work. With resource and time constraints being predominant in the organization, the need for an active participation and understanding of every employee to achieve higher process orientation is necessary.

Providing a definition of BPM was a challenging question for all of the interviewees and the answers varied widely. In this work, BPM was previously defined as a combination of different definitions found in literature and as a way of effectively managing processes in an organization at both a high-level (process framework, strategy, operations) and low-level (operational, execution, work-flow) to create end-to-end customer value, organizational excellence and competitive advantage by modeling, implementing, innovating, improving, measuring, analyzing and documenting business processes by allocating all relevant resources and combining management tools with IT tools, to cover a holistic view of BPM.

ID11 defined BPM to be:

“A grid, which exists and allows classification and structure of every organizational action as well as experience, documents and requirements. If work needs to be done, one chooses the right piece of the grid to work in.” (ID11)

This view partly covers the definition adapted from the literature by realizing that BPM aims to cover every level of an organization and to structure it. All interviewees see BPM as a way of structuring work and achieving some kind of guidance and traceability of performed tasks. The relation between BPM and more structure has been the dominant matter in this particular question. ID9's definition extended the view of BPM to include the structuring of tasks by adding that BPM is about to close a gap between the actual state and the desired state of an organization.

“BPM works to perform an “as-is” analysis and to define a “to-be” state by critically questioning the current positions of the organization and defining clear goals and work on the delta between those two states. To achieve these goals, processes need to be established, implemented and controlled and the management needs to be involved in.” (ID9)

Besides the definitions given by top management, this definition was the only one that mentioned the involvement of management as a key element. It also
incorporates the dimension of implementing and controlling processes by some kind of measurement and analysis.

When considering all the definitions given by the interviewees, the main points cover the definition chosen in this work. Nevertheless, there are two important aspects which were not considered by any of the interviewees. The allocation of relevant resources in the right way was not mentioned by any interviewee despite the resource constraints being a predominant focus, as shown in the following paragraphs, when discussing the problems of the organization becoming more process-oriented. Also, the connectivity between management tools and IT tools, mentioned by Bandara et al. (2005); Chong (2014); Lederer Antonucci and Goeke (2011); Rahimi et al. (2016); Trkman (2010) individually was not mentioned in the interviewee’s definitions. The missing described linkage between IT tools and management tools can be the result of no existence of any IT tools being deeply rooted within the organization.

Comparing the definitions provided by the interviewees with the initial one for this research work, the major difference is the viewpoint on processes themselves. While every interview sees processes as a way to provide structure, guidance or traceability, the view on process in BPM reaches further. Processes are a strategic asset for an organization (McCormack, K. P. and Johnson, W. C. (2001); Smart et al. (2009)). The initial definition takes this into consideration by saying that BPM creates customer value, organization excellence and competitive advantage. Points that also haven’t been mentioned by the interviewees.

4.2.3 Advantages and Disadvantages of Process Orientation

There has been much research about the perceived effects of BPM and its advantages which have been described earlier in the theoretical background. While the literature provides a wide array of perceived benefits of BPM with research pointing into different direction (cf. Kohlbacher (2009); Ravesteyn and Batenburg (2010)), among the interviewees there was little agreement with the exception of the following.

“The benefit of BPM is having clearly defined interfaces and responsibilities within the organization“ and the “increased traceability of performed tasks, decisions taken and learning from recent mistakes.“ (ID 5)

The two mentioned advantages, having clear interfaces and responsibilities and the benefit of having a better traceability of tasks in the organization and the agreement of the interviewees on these points show that the initial presumption of
employees have knowledge about BPM in some way is confirmed. The individual knowledge and understanding although varies widely. For example ID3 added to this view:

“An increase in business orientation leads to better decision making based on data and that it allows to improve resource allocation by better understanding of what employees are doing and where problems are. “ (ID3)

The decision making based on data (qualitative) rather than feeling (quantitative) is an important point for any organization. Decisions being made by data allow traceability, comparability and an evaluation of the decisions taken leading to a sustainable strategy and early identification of errors.

Both ID1 and ID10, mentioned the ease with which new employees are able to initially start work.

“Standardized work-flows allow new employees to easily step beyond the initial training and work productive. “ (ID 10 similar to ID1)

Due to the high turnover of employees in recent years on the work level, this is an important point for an organization within a fast-changing environment and competitive market. Higher fluctuation of employees cause higher inefficiency within the organization due to job training of new employees. Also, the knowledge of the leaving employees is hardly staying within the organization. In combination with limited resources, both points can be crucial for any SMO's being successful. Both points can be dealt with by following a process-oriented approach and introducing necessary documentation to guide new employees and keep knowledge in place.

ID6 covers other points identified in literature.

“A higher process orientation leads to higher efficiency and a lean structure. Besides these points it allows measurement of goals and puts them in a perspective that allows the comparison of set goals and projects due to the use of equal parameters. “ (ID6)

This view is linked to the before described statement of ID3 identifying comparability and traceability of decisions and goals. Describing a lean and efficient structure although extends the view of ID3.

While most of the interviewees see process orientation as being positively attributed to an organization, helping to achieve a unique environment of working giving guidance to employees and supporting them, ID1 commented on negative aspects of process orientation highlighting that it is unnecessary for a SMO to achieve high process orientation due to their dynamic capabilities.
“An organization loses its dynamic capabilities through too much bureaucracy, which is associated with process-orientation. Increased traceability demands an increase in documents and efforts which leads to slow changes and movement within the company and is only needed when having high number of employees.” (ID1)

This point of view is based on former experiences made in big automotive Original Equipment Manufacturers OEMs where the perceived effort in documentation seemed high and no personal benefit of the effort could be seen.

Looking at the different statements given, there is again only little consensus between the advantages of BPM within the interviewees. But comparing the advantages of BPM discussed with the interviewees with the perceived benefits in literature, many of the points regarding the organization itself were identified by the interviewees in total. What is missing though are any advantages related to customer satisfaction, quality- and product related topics as they are identified in Figure 2.2. It also confirms the results identified in the section of “BPM definition” as similar factors have not been identified. Besides that, the study by Kohlbacher (2009) included all of the perceived advantages mentioned by the interviewees and more. Only the degree of importance of the different factors in the study differs as product and customer related points have not been mentioned by the interviewees.

4.3 Individual Work Organization

To better understand how work is performed within the organization on a day-to-day basis, the third part of the interview focused around the structure of performed tasks by the employees and management. To investigate into the employee’s focus on daily work is justified according to the research of Paim et al. (2008), which identifies a generic gap between BPM and the day-to-day reality saying that BPM concepts are more design oriented whereas the practical need is on day-to-day orientation asking for more practical orientation of processes.

Between employees on the staff level, daily tasks, which result from the given time frame of the projects, the regular meetings and the work packages, are assigned to individually. Everyone has assigned responsibilities and deadlines for when the specific work must finished. The execution of the individual day-to-day work and working packages are in general loosely defined leaving a lot of space for interpretation for every employee.

“I get a task and a time when I have to deliver but there is nothing defined on “how” these tasks have to be achieved.” (ID2)
The lack of standards and methodologies regarding how work is executed was supported by the other interviewees. Particularly for new employees or those in initial job training the lack of standards and methodologies was reflected as an unproductive and time-consuming way of working.

“The initial job training is all based around trial and error to identify the best way of how things work. The lack of documents of work already performed and how things are done makes it difficult to build up upon.” (ID4)

As seen, the lack of standards and methodologies is not only reflected in the difficulties for new employees, it is also a problem for the organization itself as prior knowledge is lost and no standardized procedures and documents for different tasks are available. Without having such standards for project protocol, individual organization of one's work is also affected:

“Structuring work is difficult, especially when working together with different people as there is no standard, leading to miscommunication and delay of work.” (ID2)

“I defined the structure of work for myself using my own kind of processes which results out of my recent experiences and what works well.” (ID1)

The structuring process of the individual work lead to separated silos as seen in the statement by ID2. When working together with multiple members, a common understanding and definition of how to work together needs to exist to ensure a good flow of information and to deliver results on time. The creation of silos is supported by the view of ID1, who organizes all the work based on recent experience leading to knowledge being centralized with the employee itself and no access of the knowledge for the organization. The freedom of every employee to structure daily work individually results in traceability-, structure- and efficiency issues for the organization due to the loss of knowledge and missing general documentation.

4.3.1 Individual Benefits of Increased Structure

While all of the interviewee's connotation to daily work structure has been negative, the opinion regarding the need for more structure varied depending on the tasks being performed. While more structure for development tasks was perceived as being difficult to implement due to the complex nature of development tasks itself and the unknown output, standardization regarding regularly repeated tasks,
like writing an offer, is perceived to be highly beneficial. The general view re-
garding the structure of development tasks was contrary to the one given by ID1. A reason for this difference was the differentiation between working in a team
and developing alone. The different view of the interviewees regarding the struc-
ture of the development process when developing in a team competed to the one
of developing individually. The differences depend on the interviewee's personal
involvement in team developments.

For employees working within a development team, the view presented above
by ID2 is commonly shared. Especially the flow of information to achieve a good
communication within projects is seen as a problem and perceived to improve with
more structure and a higher process orientation.

"More structure would help to organize the communication within the
project because clear lines of communications are missing but it is
difficult to implement due to the dynamic nature of the project and
the tight time frame." (ID3)

The statement made by ID3 highlights that more structural approach is difficult
due to high dynamics within the project but the need for improved communication
would be helpful. With no previous success in any BPM approach there is a
perceived gap between a dynamic project and the ability to reach higher process
orientation. The highlighting of the tight timeframe is again an indication for
the lack of resources and time. Knowing about the need for improvement and
structure but still not being able to tackle the problem is again likely leading to
delays and miscommunication throughout the whole project.

Next to the more efficient development of products, the point of using existing
knowledge and the comparability of former efforts is another perceived benefit
achievable having a more structured approach to daily work.

"Being able to use already existing knowledge would ease making de-
cisions and help to judge things more easily based on former, similar
performed tasks regarding costs, needed resources and already faced
problems." (ID5 similar to ID7)

More structure at both the project execution level and the organizational level
is perceived to improve the planning of resources, both financially and regard-
ing human resources. This would then tackle the frequently mentioned problem
regarding time and resource constraints.
4.4 Problems of a Particular SMO for Reaching Higher Process Orientation

SMO's, in general, share one common problem; that is, a shortage of resources. This is why, when looking at barriers for SMO's regarding BPM initiatives, the lack of resources and time has been identified as being the central issue (Chong, 2007).

“Effort of defining and designing processes are more or less similar and don't depend on the size of the organization, while having less resources increases the pressure on the organization to do so.” (ID6)

The statement ID6 identifies is one of the basic problems of SMO's compared to large organizations - while it is easier for large organizations to free necessary resources or get additional ones, this is not the case for SMO's but the underlying effort for conducting any BPM work is similar depending on the goal. The processes have to be analyzed, designed and implemented no matter if the process will be used by a large or small amount of people. Having a large number of people might affect the complexity of the process and the implementation but the underlying work still needs to be done equally. Another problem of SMO's was identified by ID8.

“The reason SMO's exist is the inflexibility of large organizations. This flexibility is a key asset of every SMO and one can't afford to lose this to too much bureaucracy.” (ID8)

For SMO's, the requirements BPM needs to serve is different compared to large organizations. Especially when looking at highly dynamic environments, BPM shall serve as a high-level structure giving employees the possibility to operate and adapt to frequent changes. The adaptability of the organization to changes needs to be reflected in the process design to allow a design that is able to be implemented (Borch and Batalden (2015)). Not only does the process design need to fit the organization, the existing culture within the organization needs to support the BPM approach (vom Brocke and Sinnl (2011)) Becoming too bureaucratic by, for example, producing too many documents for traceability results in a cost-benefit struggle within the SMO. This point is described by ID 11.

“High demand for flexibility leads to little use of standardization as the effort of standardizing, updating and tracking is higher than the benefits there is a trade-off between costs and benefits.” (ID11)
The time and resource constraints are not only reflected in the availability of resources for designing or implementing the processes, also the required change in management when implementing the processes needs resources.

“Change management should not overwhelm employees a careful approach is needed which asks for time and resources. Change starts in the employees minds.” (ID10)

Improving process orientation requires not only additional resources, it requires employees and management to think and work in a new and potentially unknown fashion. The resistance to change is another factor in every BPM initiative, independent of the size of the company but this is highly dependent on the organizational culture. The problem of the SMO in this case study is the difficulty to shift from a highly functional organization to a more process-oriented. This shift requires a new way of thinking which evokes a necessary change in the organizational culture. Long time employees are a great asset when looking at experience and understanding of the organization but can be difficult when facing change due to the individual set standards of performing work which have been established over the years. A personal “best practice“ of doing things needs to be adopted to a way of working which serves the purpose of the process. To achieve this state, the careful approach mentioned by ID10 is necessary but contradicts with the high workload of the employee. Especially when new processes differ from existing ones and if they tend to take more time to be completed demanding even more resources resulting in nonacceptance by employees.

4.5 Knowledge of Existing Process Framework of the Organization

In the past, efforts within the organization to reach higher process orientation have not been successful. Looking at secondary sources and existing documents, some core processes within the organization have been mapped thoroughly, for example, the comparison between the improved, modeled process and the practical work process indicates that the implementation of any improvement has not been successful. Also looking at the existing process landscape for single processes and defined workflows for different tasks it was shown that since the date of creation (which often dates back many years), nothing has changed. Knowing that processes within an organization are a living construct and that there is no end to business improvement, processes and workflows dating back six years since its last change indicate that no recent effort in changing or promoting the existing process landscape have been made. This statement is supported by 70% of the interviewees.
“There is no such thing as a process landscape, as far as I know, and if it exists it is not usable and one doesn’t work with it.” (ID2)

Looking at Figure 2.3, there are several factors related to understanding of process models and frameworks, user training and active promotion mentioned to succeed in a BPM initiative. Even with the process landscape being available for every employee via the Intranet, only 30% of the interviewees know more about it and only 10% had a critical look at it and realized and agreed upon the findings described above. This clearly indicates a lack of communication and promotion of the existing process landscape as it is directly available to all employees.

“The process landscape available for employees is outdated and not complete. Sometimes you find a more detailed processes, sometimes not but no one would look into it when having troubles performing work.” (ID3)

Without knowing about the process landscape and defined processes itself, investigating into the reasons for it is not needed. The lack of communicating and promoting the processes landscape with every employee is missing. Therefore, only the interviewees knowing about the existence of the process landscape could be questioned to evaluate the reason behind the gap between the efforts of designing and modeling processes and the general knowledge about the work.

4.5.1 Problems Regarding Existing Process Landscape

Next to the existing process landscape and the included processes being outdated and incomplete, there have been other problems mentioned by the interviewees. The common problem mentioned by the interviewees is the lack of responsibilities.

“Even though there is someone assigned managing processes within the organization, they don’t work as long as it is done alongside day-to-day work. There is no one taking care of it seriously and full time.” (ID6)

Assigning one responsible process manager to cover BPM topics within the organization alongside daily tasks reflects the inhibiting factor, “lack of time”, identified by Chong (2014). As time for designing, implementing and controlling of processes is considered to be a fulltime job. Not having the right resources or not wanting to invest into it fits to the organizational view regarding change and the lack of management support and awareness. This is supported by ID5’s statement.
“Processes are no component of the daily operative business, solely order by top management to pass the ISO 9001 certification. As long as there is a mentality of it can be done alongside without really talking care of and the top management being role models, there will be no success.” (ID5)

The two major problems within this statement are the reason for doing any BPM related work and the lack of management support in the organization becoming more process-oriented. In saying this, however, it is not only top management support which is missing, it is the missing a well thought through BPM initiative and approach followed by top management towards a higher process orientation. With a process landscape serving to only pass the ISO 9001 certification, the general approach of management towards BPM needs to be reflected.

“Becoming more structured and implementing processes is a long-term investment and improvements can't be seen directly. It only produces costs.” (ID9)

This view strengthens the statement above saying that the general management point of view is missing a clear orientation towards BPM. Not only this, it again accentuates the lack of resources and profit orientation of the company.

### 4.6 Classification of Identified Problems

Table 4.1 shall give an overview of the different problems regarding a successful BPM initiative in the organization identified in the conducted interviews. The single problems can be separated into two types. Problems which are directly visible and realized within the company and interviews and problems, which are related to overarching factors and therefore not directly visible to employees or management. The reason for dividing the problems into two types is the individual recognition of the problems by the interviewees. While visible factors have been identified by a high percentage (70% or more), the invisible ones have only been identified by a low percentage of employees (30% or less).
<table>
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<tr>
<th>Identified Problems</th>
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<tbody>
<tr>
<td><strong>Organizational Culture</strong></td>
<td>Functional organization (visible)</td>
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<td>Top down hierarchy (visible)</td>
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<td></td>
<td>short-term-, profit oriented (visible)</td>
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<td></td>
<td>Identifying need for change (invisible)</td>
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<td></td>
<td>Change resistance by CEO and long-time employees (invisible)</td>
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<td></td>
<td>Gap between BPM-culture and cultural context (invisible)</td>
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<td><strong>Specific BPM Knowledge</strong></td>
<td>Missing holistic understanding (invisible)</td>
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<td>Biased towards BPM (bad experiences/loss of flexibility) (invisible)</td>
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<td>Lack of focus on process analysis, - design, -measures and continuous improvements (invisible)</td>
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<tr>
<td><strong>Existing Process Landscape</strong></td>
<td>Lack of communication (visible)</td>
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<td>Serves the wrong purpose (invisible)</td>
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<td>Doesn't reflect processes (invisible)</td>
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<td>Lacking responsibility(visible)</td>
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<td><strong>General, SMO specific problems</strong></td>
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<td>No role model on management level (invisible)</td>
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Classifying problems into “visible” and “invisible” can help an organization to tailor the approach in solving the respective problem. While the view on a visible problem is commonly shared by the employees, the identification of the problem and the solution are perceived to be understood by the employees without needing further explanation. Invisible problems are problems that have been identified specifically by a little number of interviewees. The general acceptance of the problem even existing might therefore be lower and the way addressing this kind of problems need to be adopted. This might ask for higher investment of resources to solve the respective problem.

4.7 Individual Requirements Regarding Process Implementation

Next to the problems the organization is facing in reaching higher process orientation, individual factors on an execution level need to be considered when trying to implement a set of processes to become more process-oriented. The gaps between a conceptual and practical view in Paim et al. (2008) acknowledge the need to not only investigate into the management level when looking at BPM but also on the execution level to ensure employee support. Different individual requirements for implementing new processes were identified by the interviewees. The requirements can be grouped into six main factors, which has been mentioned by at least five interviewees, which reflects approximately one third of the interviewees.

- End-user training and explanation of processes.
- Processes need to reflect daily work and the process design needs to be closely tied to employees.
- Additional effort (for example for documenting or steps to increase traceability) needs to be taken care of by adjusting resources or better IT support for the employees.
- The following of the processes needs to be controlled and claimed. Benefits and penalties must exist and a person with the empowerment to declare them.
- Iterative process implementation and key responsible person for feedback. Changes and problems of end users need to be taken care of.
- A process should set a frame but not too tightly. Competencies and the detailed workflow shall still stay with the employees.
The identified factors only partly relate to the identified factors in Figure 2.3. End user training and resource allocation according to requirements as well as process design and control has been mentioned in literature. Factors relating to the iterative process implementation and contact point along with the necessity of processes to reflect daily work and being closely linked to employees or end users has not been mentioned in literature directly. Next to the above mentioned factors identified by interviewees there have been other points mentioned which are considered to be important but don't share an equal point of view or understanding.

ID6 mentioned the importance of conducting process implementation as a project itself. This way it can be ensured that necessary resources for design, implementation and control of the processes, together with the empowerment of the responsible person can work out. Trying to implement processes alongside daily work most likely end up in a failure implementing the processes.

The following up and control of the processes should further be done by internal audits which should happen frequently in the beginning and respective rewards or penalties according to the follow up of the processes be spoken out according to ID9. Reward or penalty structures must be seen with care as they can limit the employee's identification and motivation towards the organization (Tomer (2007)). Another research in the field of information security has shown that the severity of the penalty has shown little to no effect on the employee's behavior. Instead the likelihood of getting caught not following the rules lead to higher compliance (Herath and Rao (2009)). There are also opposing views regarding a successful process implementation which does not agree on before mentioned points.

“The management is responsible for processes. Therefore, they should specify the processes and the employee has to follow it, no matter what.” (ID8)

The difference within this statement is the neglecting of the importance of designing processes close to the employee but also highlights the importance of the management role in case of implementation. The statement therefore partly dissents with literature but fits into the patriarchal culture of the organization by putting the management into charge and responsibility and overlooking the importance of input from the execution level.
Chapter 5

Discussion

The aim of this Master Thesis was to investigate the problems of a particular SMO in becoming more process-oriented, viewed from different perspectives within the organization. Two research questions were formulated in support of this aim.

1. What are (and have been) the problems of a specific SMO in the automotive industry becoming more process-oriented?

2. What are the requirements for an individual employee on the execution level working in a SMO to make process implementations worthwhile?

Supported by the theoretical background, the following section will discuss how the empirical analysis is related to these research questions.

5.1 Key Problems in Reaching Higher Process Orientation

A BPM initiative can be a variety of different approaches, but all share the same goal, reaching a higher degree of process orientation within an organization. Looking at the different factors identified in literature to conduct a successful BPM initiative, the challenge for an organization is to set a realistic frame as to which of the success factors they are able to tackle. While expert knowledge may require, for example, the help of consultants or external training, freeing necessary resources can be achieved solely by management instructions depending on the market- and organizational situation. Particularly in SMO's, which face different problems compared to large organizations, the right approach to a BPM initiative is crucial for the success due to more constraints regarding costs and resources.
The research work took place in a particular German SMO working in the automotive industry. By not only looking at a management point of view but also from an employee's perspective, the research design is meant to reflect a thorough understanding of BPM on all levels of the organization itself, as most of the former research regarding BPM originates solely from an expert or CEO point of view and is lacking the involvement and consideration at the execution level. Also, much research was about identifying CSF but is missing to take the gained knowledge one step further of actually addressing the identified CSF in practice.

There have been several problems identified within the organization in becoming more process-oriented. The empirical findings have been classified into five different categories as listed below. Within each of the categories, the respective problems have been identified by conducting semi-structured interviews and will get discussed. The five different categories are:

1. Organizational culture
2. Specific BPM knowledge
3. Existing process landscape
4. General, SMO specific problems
5. Individual problems

Taking all the input given by the interviewees into consideration, the factors for a successful BPM initiative resulting in higher process orientation were well covered. Looking at the input of the interviewees individually, there was a high variation of responses within each of the five categories the problems were classified into. To cover this variation, the problems have been classified into “visible” and “invisible“, as described in the empirical analysis. This way, a high degree of agreement on a specific problem can be easily highlighted by calling it a visible problem which is perceived to exist by the majority of interviewees. For more structure and a better understanding, each of the five themes will be discussed separately.
5.1.1 Organizational Culture

Within the organization culture there were five specific problems identified, which will then be discussed in more detail in the subsequent paragraphs.

- Functional Organization (visible)
- Top down hierarchy (visible)
- short-term-, profit orientation (visible)
- Identifying need for change (invisible)
- Change resistance by CEO and longtime employees (invisible)
- Gap between BPM-culture and cultural context (invisible)

The classification of the organization as being functionally organized with little process orientation was identified by management and employees alike. Reason for this functional structure were the clear lines of responsibilities in the past. Each department had a single responsible middle manager, who reported to upper management, leading to limited flow of information between levels of the organization. This strict separation into functional units, which was established many years ago now make it difficult to overcome and change. A large proportion of middle management positions are filled by longtime employees meaning that the shift of responsibilities and reporting structures is often hindered by personal reasons such as those identified by ID8 saying that specific efforts of trying to restructure have been impeded by single individuals. Changing responsibilities by restructuring the middle management level and reporting structure to a matrix structure could be a first step overcoming this functional division of sections within the organization.

The top down hierarchy is a key problem for the organization in becoming more process-oriented and has been mentioned by nearly all interviewees. With the CEO and upper management being the central point of information flow, there is an ineffective structure of providing information leading to departments that are lacking information and being unable to identify problems in time. While a top down hierarchy does not directly hinder BPM initiatives when they are initialized and followed up by upper management, this was and is not the case in this organization, a bottom up top down mixed strategy proved more effective according to Munive-Hernandez et al. (2004). Such a structure allows clear lines of responsibilities while still paying attention to inputs on the execution level. When conducting a BPM initiative in an organization with a strict top down hierarchy a high level of management support, knowledge of BPM and time are demanded for the initiative to be successful.
BPM efforts are a long-term investment, meaning that a short-term, profit based orientation of upper management will likely hinder BPM initiative efforts simply by means of not wanting to invest all important resources initially (Trkman (2010)). As every BPM initiative demands initial investments, the focus of the organization needs to be altered to strengthen long term planning, what is again dependent on upper management and can be linked to the organizational culture. The short-term orientation of upper management was mainly identified by the constant focus on profit and the resulting missing resources for performing necessary tasks and constantly high workload. The resource constraints not only lead to high workloads of the employees, it also hinders any possibility of employees to deal with BPM related topics. The mindset of conducting BPM initiatives successfully alongside daily work ask for free resources on the employee's side to be able to address BPM topics.

The realization of a need for change can be considered to depend on the visible problems identified within the organization. With a functional and hierarchical structure, change can only be promoted by upper management. As long as upper management is driven by a short-term view and while business is seen to be going well, change is unlikely to be initialized, as identified in the interviews. The identified unwillingness to introduce change on management level combined with the factors of working in functional divisions, missing reasons for change and a top down hierarchy can make organizational change impossible. This is confirmed when looking at change initiatives in the past to become more process-oriented, as they never have been conducted successfully. A reactive style to change rather than an active one can lead to losing the connection to markets and competitors in an ever changing environment (Todnem By (2005)).

To achieve higher process orientation and to tackle the problems within the organizational culture, a change of mindset within the management needs to take place to close the gap between a successful “BPM-culture” and the current organizational culture. The centralization of the organization around the CEO leads to a high dependency on one individual leaving other employees and even middle management behind. It also incorporates a high power-distance culture resulting in the organization being unable to conduct any BPM approach that does not start at upper management level. A structural change can be considered to be more difficult to approach than the change of a management philosophy leading to a recognition that change is necessary and ultimately trickle down to employees. Therefore, an important first step would be to reach a change in the mindset of upper management allowing the possibility and openness towards organizational changes. Not only allowing the possibility, but also initiating incremental changes that lead to the predefined goal in reaching higher process orientation. Incremental changes on the execution level of processes can only be successful if daily work
allows space for dealing with additional topics related to BPM while still being able to finish off daily work. This way a higher “cultural fit“ can be achieved (Schmiedel et al. (2015)).

The organizational culture has been described in the Empirical Analysis using the six dimensions established in the model developed by Hofstede (2011). The culture of the organization studied here was identified as being particularly short-term oriented and as having a high power-distance. The “as-is“ culture, also called the cultural context, has been proved to diverge in many aspects from those required for a supportive BPM culture which was described by vom Brocke and Sinnl (2011) leading to little “cultural fit“. While a BPM culture supports change, focuses on collaborative cross-functional processes and achieves internal process excellence while not losing the flexibility to adapt to customers, the current organizational culture covers only excels in adapting to customers. That said, a change in mindset by upper management has been identified as the basis for bringing the specific culture closer to a culture that supports BPM initiatives.

The first problem already shows the complexity of the issue itself. With many different points being interconnected, the understanding of each point and its influence on others is necessary. A change in management mindset does not necessarily lead to success if for example the high workload on the other side makes any change towards daily work impossible. A careful structuring of the change approach and the thorough understanding of the respective influences need to be considered to successfully address the initial- and all related problems towards change.

5.1.2 Specific BPM Knowledge

When looking at the category of BPM knowledge, three problems were identified and will be discussed in the following section.

- Missing holistic understanding of BPM (invisible)
- Bias towards BPM (bad experiences/loss of flexibility) (invisible)
- Lack of focus on process analysis, -design, -measures and continuous improvement (invisible)

Within the thirteen conducted interviews there was only one interviewee who had a holistic understanding of the concepts and benefits of BPM due to former experiences in an OEM. The other twelve interviewees lacked this holistic picture, focusing on single aspects of BPM such as cross functional process or the structure of the organization with clear responsibilities. With only a partial understanding of what BPM truly is, the focus of any approach will be limited to the known factors. This incomplete understanding of BPM is a crucial point, particularly
at the management level when an organization has a hierarchical top-down structure. When moving towards a higher degree of process orientation, the problem of missing BPM knowledge is in the basic definition of what exactly higher process orientation looks like. The inability to take into consideration many points BPM covers results in wasted resources when conducting a BPM initiative by failing to reach defined goals, as seen in the past. One does not ultimately have to consider all the points described in Figure 2.3 but the knowledge of the points influencing the respective BPM approach at the moment allow to address problems and gives guidance throughout the process. Another important point is the linkage between IT tools and BPM, which has only been identified by single individuals. No experience in regard to their linkage as well as the unavailability to certain IT tools can be seen as being responsible for the missing knowledge of importance towards IT and BPM.

The feeling of employees towards a higher process orientation is partly linked to the organizational culture. Some employees have a negative attitude towards BPM as it often requires changes to how assigned tasks will be performed. Therefore, a BPM initiative can only be successful when carefully managed and followed up as acknowledged by ID10. In addition to this, there is a misconception that moving the organization towards process orientation will impede on the dynamic and flexible nature and affect the competitive edge of the organization. This has proven to be wrong by Ravesteyn and Batenburg (2010) by saying BPM can improve flexibility but the perceived effect of an increase in flexibility is low according to Kohlbacher (2010). That BPM can increase development and throughput times and increase customer satisfaction is not widely acknowledged within the organization which can be seen as result from missing BPM knowledge that has been discussed before.

The major problem with the interviewees understanding of BPM was the lack of focus towards processes themselves. The underlying principle of a process orientated organization are indeed the processes and without focusing on the analysis, design, implementation and improvement of these processes, it is difficult to promote steps towards a higher degree of process orientation. There are multiple reasons for the missing process focus. First, the general lack of processes within the company on an execution stage but also when looking at analyzed and designed processes. Second, there are no tools to analyze and design process available inside the organization. A limited amount of people have at best access to Microsoft Visio, which would allow a consistent design of processes. Third, measures and continuous improvement methods and their respective applicability outside of production areas are widely unknown within the organization. Finally, the organizational culture is not supporting the process view needed for improving continuously. There have not been many attempts to implement continuous
improvement methods leading to a repentance of problems. Furthermore, no one is uniquely responsible for internal processes.

5.1.3 Existing Process Landscape

The reason to investigate into the topic itself has been the failure of implementing any process landscape in the past. Looking at the existing process landscape, another set of problems are identified. These issues are outlined in the four bullet points below.

- Lack of communication of the process landscape (visible)
- Existing process landscape serves the wrong purpose (invisible)
- The existing process landscape does not reflect processes as they are (invisible)
- Lack of responsibility for the creation and maintenance of the process landscape (visible)

First of all, even with the existing process landscape being available to all employees via the Intranet, not all of them knew about their existence and none of the interviewed employees use it. Even employees working in the organization for more than one year demonstrated a lack of knowledge about the process landscape, making it clear that there is no promotion of the process landscape within the organization and general applicability is missing. The lack of communication is therefore a visible problem. The reason for the lack of general applicability is within the process landscape itself. The major purpose for the existence of the process landscape is not that the organization is striving to be more process-oriented but because establishing a process landscape was an essential element to pass the ISO 9001:2008 certification. After passing the ISO, almost all efforts towards a fitting process landscape that could guide and support employees and management in their daily business as well as strategic planning of upper management were halted. Therefore, the existing process landscape does not serve the correct purpose and is outdated, making it impossible to use. The process landscape serves to specify corporate processes and in the end to structure the process portfolio of the entire organization making it able to understand processes within process chains and their influence on other processes (Software AG (Accessed 16.05.2018)).

Having an existing process landscape that is impossible to use is the result of no individual being assigned responsibility of it keeping it up-to-date and renewing it. This leads to an existing process landscape that is outdated and is not nearly reflecting processes as they are in the organization. Taking into consideration the
missing long-term view of upper management, the resistance to change and the lack
of understanding of BPM in general, it is not surprising that the existing process
landscape is outdated. The task for upper management now is to free necessary
resources and assign responsible employees for working on the process
landscape for the purpose of achieving higher process orientation. Also, to allow
the employee power to make decisions and follow up on the implementation of the
process landscape is necessary. This, again, requires a shift in management philos-
ophy and organizational culture as already mentioned earlier. For communicating
and trying to implement the process landscape it is necessary that it represents
actual processes that are performed to be applicable.

5.1.4 General, SMO Specific Problems

In his research, Chong (2014) identified specific problems when conducting BPM
initiatives at SMO’s. Three of the problems identified within the organization do
directly relate to the respective findings. The trade-off between a flexible versus a
structured nature is a finding that haven't been mentioned before. The identified
problems of the organizations are the following:

- Lack of resources (visible)
- Lack of time (visible)
- Flexible versus structured nature (invisible)
- Lack of experience (invisible)

Lack of resources, lack of time and lack of experience are findings that have
been object to prior research (Chong (2014)). For the specific organization in this
research these problems are leading to high workloads for the employees, missing
long-term orientation of management and failure of previous efforts to reach higher
process orientation.

One advantage of a SMO is the reduced bureaucracy within the organization
enabling fast decision making and allowing focus on specific projects covering small
quantities like prototypes or fast change of an existing product. A process struc-
ture is perceived to hinder the needed dynamic nature of an organization and
lower its flexibility by standardizing procedures and increasing bureaucracy. ID8
covered this point by identifying a SMO's need for constant consideration of the
cost and benefits of the BPM approach. Thus, it is essential for an organization
to thoroughly understand the market and the organization itself before starting a
BPM initiative. When there is much uncertainty in the market, high flexibility is
required for the organization to remain competitive which must be reflected in the
BPM initiative through adopting management- and process-based methods. To address this issue of flexibility and the respective approaches, it is crucial to understand the type of process in relation to the organization and market (vom Brocke et al. (2016)). While some processes might be easy to standardize, for others, it is almost impossible. Depending on the nature of the process, the methodology of designing and implementing BPM differs from a tightly framed process reflecting standardized procedures to a loosely framed process reflecting new process development procedures. By maintaining this differentiation within the BPM approach, the flexible and dynamic behavior of organizations can be kept intact while still increasing process orientation. For SMO's the high degree of standardization might not be generally applicable as it would in large organizations to keep up the flexible and dynamic nature of the organization. Even looking at the same processes in a large, medium or small sized organization, the degree of flexibility within the respective processes may vary depending on the organization's needs. Copying the process design of another organization, as mentioned by ID3 is therefore a misleading approach that could save money in the first run, but missing applicability to the organization.

Counter to the above argument that discusses the importance of maintaining a dynamic approach, the cost of this flexibility within an organization must also be considered resulting in the trade-off between structure and flexibility. Flexibility can be viewed as the ability to serve short-term requests or changes immediately by making exceptions to protocol and stepping out of the usual process. However, it is important to acknowledge that with increased flexibility comes risk. The more exceptions that are made, for example, to satisfy one customer immediately, means that resources are being taken from elsewhere which could lead to a delay of different tasks, which may resultantly lead to a reduction in overall customer satisfaction. As such the term “flexibility“ needs to be used with caution and demands a holistic understanding of the process chain in order to evaluate the effect that a certain need for flexibility has within an organization.

To put this theory in practice, a large resource pool is needed to thoroughly analyze and differentiate between the different kinds of processes. A holistic understanding of BPM and good knowledge of the organization can help when performing this task. Looking at the resource constraints SMOs are facing, the use of external support can be a good step to overcome those problems but also comes at the risk of not being able to build up internal competencies for future BPM work leading to again wasted resources once the support is missing.
5.1.5 Individual Problems

Individual problems are problems identified on the execution level of the organization. The problems faced by individuals towards higher process orientation can be grouped into three categories.

- High Workload (visible)
- Missing guidance (invisible)
- No role model on management level (invisible)

The high workload of every interviewee does not allow the individual to deal with topics, such as BPM implementation, that exceed daily work requirements. To tackle this problem management needs to enable each employee to seriously engage with BPM topics by freeing necessary resources. While this might cause delay in short-term, it can lead to long term benefit. This problem of employees not having enough time to fully engage with BPM correlates again to the problem of the management focusing on the short-term.

At the management level, there are no employees that are undertaking an active role in BPM. Within a hierarchical top down structure, BPM initiatives have to be started and followed up on by management in order to trickle down to the employees, and the execution level of the organization. Without management acting in accordance with designed processes it seems impossible to promote the processes on an employee level. Taking this point further, it is not only the way of thinking which has to change on management level, it is also the way of acting.

The last individual problem of requiring management behavior to be altered is a point that is not mentioned by former research. Missing guidance not only reflects the lack of a responsible person in a BPM initiative for designing and implementing processes, it also reflects the lack of explanation and acquaintance towards new or existing processes. Taking this point into practice it is not enough to simply promote new processes to employees. Increasing the process orientation can only be done successfully if the employees themselves understand the reasons for the new way of working. End user training might cover this point partly but it is a thorough understanding needed on the execution level, involving explanations and guiding the employees on execution level while being involved in a BPM initiative.
5.2 The Employee's View on Process Implementation

The second research question was to identify the requirements for making process implementation worthwhile from an employee point of view working in a SMO. A justification for posing this particular research question is within the answer given by management that human resources are an essential factor when implementing processes in an organization and to take existing research further by not only identifying CSFs but looking into what it needs for them to be addressed.

As seen in the empirical analysis, there is little given structure for an individual's organization of work at the workplace. The employees structure their work based on personal experience of how things work best, their initial job training on how things get done are driven by deadlines. This individual structure of work has been identified to be difficult and leading to delays and miscommunication within projects, as outlined by ID2. The desire for more structure in the organizing of employees' day-to-day work environment was constant throughout the interviews on staff level. The advantages of a more structured approach to work are perceived by the employees to be reduction of time taken to complete projects, better initial job training and the reduction of high workloads. Often BPM is considered to initially increase the workload of the individual as they adapt to a new way of working. Looking at the findings within the interviews conducted, the higher initial workload was acceptable to employees because it would lead to an improved overall execution of the project. However, the missing structure is not only difficult for process execution, it also hinders an efficient initial job training. With minimal existing documentation, a lot of knowledge and expertise is lost when employees leave the company. The loss of knowledge combined with a high turnover of employees can weaken an organization. More structure in individual work by defining a need for documentation can be beneficial for the individual, and the organization by keeping knowledge in-house, reducing initial job training and, with that, the need for resources.

Given the need for more structure for employees at the staff level, the practical implication of BPM is of special interest particularly when the chronic resource constraints of SMO's are considered. None of the identified literature related to BPM have dealt with the specific requirements for employees on a staff level in SMO's. The differentiation between SMO's and big organizations is important here due to the resource constraints faced by SMO's and the inability to install departments solely responsible for process management. In SMO's, other ways for implementing processes need to found. Despite the problem of resource constraints, one of the advantages of SMO's is the more direct contact between different levels of the organization. Upper management can directly interact with employees and the
other way round, if necessary. In a top down structure, the direct contact can be beneficial for exchange of information, promoting change, convincing employees to follow a given approach. For raising employee concerns and direct improvements of the process execution, a bottom up structure is beneficial as it allows to introduce special control loops for management and employees (Kaplan and Norton (2000)).

There have been six major requirements to implement process on an execution level.

- End-user training and explanation of processes.
- Processes need to reflect daily work and the process design needs to be closely tied to employees.
- Additional effort (for example for documenting or steps to increase traceability) needs to be taken care of by adjusting resources or better IT support for the employees.
- The following of the processes needs to be controlled and documented. Benefits and penalties for following processes must exist and a person with the power to enforce them.
- Iterative process implementation and key responsible person for feedback. Changes and problems of end users in respect to the execution of processes need to be taken care of.
- A process should outline a framework but not too tightly. Competencies and the detailed workflow shall still stay with the employees.

Comparing the outcomes of this study with the literature, there are similarities, differences and new insights toward a successful process implementation on an execution level. The new insights are of particular interest. When looking at processes that require additional effort for employees as a result of changing the structure of work or increasing the demands for documentation, the employees need to have it clearly outlined why this increase in workload is beneficial, both for them individually and to the company as whole. Furthermore, the additional workload has to be damped by giving employees the ability to perform the extra work by adjusting resources and/or having better IT support. Both points are difficult to achieve within a SMO due to the resource constraints. IT is often considered to be very costly and the explicit need must be justified. Adjusting resources once more demands a thorough understanding of the whole organization and process chains to identify the influences when shifting employees and workload.

Quantifying the success of easy processes is straightforward due to Key Performance Indicator (KPI) which can be easily identified. However, for work that
requires a high level of expertise, quantifying process orientation is more difficult. For expert work, following up on processes can hardly be based on KPIS as they are difficult to define for this type of work due to the uncertainty that is synonymous to new product development. Therefore, the follow up process can hardly be carried out by predefined metrics. Previous research has identified frameworks to identify KPIS for knowledge management and high knowledge work but their applicability to SMO's due to the often described resource constraints is questionable (del Rey-Chamorro et al. (2003)). To tackle the resource constraints and get the best possible benefit, the need for a good understanding of the for example development procedures is necessary and gates with specific and additional requirements are needed to keep track of the process. For a development process this can be achieved through standard documents which are required to be filled in to pass a specific gate. The gates and its requirements depend on the organization and need to be adapted to allow a best fit.

The following up on process through a reward and penalty system seems somehow contradictory to an employee demand but when looking at the frustration within projects that the missing structure is creating, the follow up is an important point to address within the researched organization.

The iterative process implementation is a point not directly highlighted in the identified literature but is a common ground for any BPM related software. A design of the process to reflect the employees work and allow efficient execution asks for an “open ear“ from upper management to the employees. The owner-managed organization with a strong developed top down hierarchy is often perceived to miss this open ear for employees as identified within the statement of ID8 putting all responsibility for designing and implementing processes on management which again reflects the “as-is“ culture in the organization. An iterative implementation would be able to design a best practice and adapt it to the input supplied by the employees by using corrective loops. Identified problems and improvements of the process could then be directly addressed. However, the problem with this approach is the possibility of employees not seeing the need for change in the way that they are currently working and therefore continuously trying to adapt the process to their current working environment. Having a good understanding of the entire process chain would largely avoid these types of problems.

The last and final point is the one offering the highest tension between the employee point of view and organizational point of view and is also part of the ethical concerns of the research project. Out of an employee point of view the requirements for implementing a process should be that the competency stays with the employee and the process shall only give a loosely defined frame of the tasks that need to be performed, still allowing the employee to act independently within this given structure. This view is partly contradictory to the perceived need
for more structure. This structure should be balanced that a process serves the purpose of giving the right direction but not the actual definition of what there is to do. From an organizational point of view, standardization of processes would be the optimal solution leaving no room for deviation and best possible control. This would allow high control of the process and knowledge is within the following of the process but intersects with the requirements of employees. An organizational culture that allows co-creation of processes and an environment of trust towards the employees and the other way round is necessary to possibly overcome these tensions.
Chapter 6

Conclusion and Summary

Previous research was asking for more case specific research to identify organizational factors related to BPM initiatives. The current research has identified the problems faced by a specific organization on their way to higher process orientation and has expanded current literature by identifying specific problems for implementing process from an execution level and the tensions it can create.

The master thesis has identified the problems a specific SMO faces on its way to reaching a higher degree of process orientation. Due to the sheer number of factors that can influence success and failure in a BPM initiative, it is important to understand which of these factors are the most important when analyzing a BPM initiative in a specific organization. Only by knowing about the specific factors is an organization able to address them and work toward the goal of higher process orientation. For the specific organization studied in this research, the problems into framed into five categories, namely:

1. Organizational culture
2. Specific BPM knowledge
3. Existing process landscape
4. General, SMO specific problems
5. Individual problems

Each point contains different problems that have been discussed throughout the development of this thesis and are mostly in line with factors identified in prior research. However, not all of the issues found here were reflected in the literature. The question that previous research has often failed to answer was how to address the identified factors when putting theory into practice. By taking the
empirical analysis and discussion one step further to the employees who work at the execution level, as in this study, this question can be answered for the specific organization where the research took place.

When looking at the problems associated with each of the five categories, there was regularly a direct relation to upper management and the organizational culture. In a top-down structure, where upper management being the center of the organization, the management philosophy is resonated widely throughout the entire organization and is key responsible for the existing cultural values. Therefore, the management philosophy is the first factor that needs to be addressed. Management philosophy in this context includes the way upper management thinks and acts in relation to the organization and towards the employees and what cultural values exist within the organization. To reach a more process orientated approach, there must be a shift in the management philosophy from a short-sighted, immediate profit driven view towards opening up to employee input and changing to a long-term view by turning away from “doing business as usual”. This allows for further steps, like loosening the top down structure and functional structure, to successfully take place.

SMO specific factors of limited resources has also found to be hindering in not only conducting BPM initiatives but already when planning them due to limited investments and available man power. Freeing necessary resources is a step management can immediately implement on but is almost entirely based on the management philosophy and external environment described above.

Another major step when moving toward a higher process orientation have been found in considering the existing process landscape, the responsibilities related to it and the justification for the existence of the process landscape. The fundamental problem of the process landscape within the company studied here was that the process landscape was created for the sole purpose of passing the ISO certification. The organization, and especially management needs to shift their attention towards a process landscape that actually reflects and shows the way business is done to not only visualize internal value- and flow chains but to understand them.

For the organization researched, the management philosophy and the existing process landscape can be viewed as the two fundamental issues that need to be addressed thoroughly before BPM initiatives can advance further and be successful. With the first steps often being the most difficult, upper management and their commitment to changing the philosophy, freeing necessary resources and follow a sustain approach towards higher process orientation are responsible for the success of BPM in this company.

Regarding process implementation, the employee's point of view on an execution base has been researched. As BPM is often looking at the “what” is required to succeed in a BPM initiative, the second part of the research was shifting the
focus on “how” it can be achieved.

Evidence has been found that many of the factors for successfully implementing process at the management level found in literature are also true and valid for the execution level. Nevertheless, there has been a field of tension identified. With diverging interests between employees and the organization, the implementation of processes has to address six important factors from an employee-based view on the execution level that supports the employee to implement processes. Overcoming this field of tension can be supported by an organizational culture that allows co-creation and trust on the employee's and organization's side.

- End-user training and explanation of processes.
- Processes need to reflect daily work and the process design needs to be closely tied to employees.
- Additional effort (for example for documenting or steps to increase traceability) needs to be taken care of by adjusting resources or better IT support for the employees.
- Following of the processes needs to be controlled and documented. Benefits and penalties for following processes must exist and a person with the power to enforce them.
- Iterative process implementation and key responsible person for feedback. Changes and problems of end users in respect to the execution of processes need to be taken care of.
- A process should outline a framework but not too tightly. Competencies and the detailed workflow shall still stay with the employees.

From an organization point of view, the factors are all but one based on two common requirement, time and resources. The description of the common requirements is followed by the description of the exception, the representation of the processes as a loose frame. The challenge, for the specific SMO in this case study, is to overcome the gap between the employees needs and wishes and the own constraints and limitations. It was mentioned a number of times in the employee interviews that workload was high, as it stands, therefore giving the employees the resources appears to be a contentious issue. One way to address this issue is by altering management philosophy to extend to the long-term meaning that higher invest in the short term would lead to savings and improvements in the long run. Another way to address this issue was the identified approach on building up IT systems and additional resources which both are again combined with initial costs.
With the last factor identified, that outlined processes should be loose another gap between the employees and organization appears. While the organization strives for organizational excellence and high process maturity optimally leading to cost savings, certain degree of standardization and traceability by framing processes to be beneficial for the company, employees still want to keep their competencies and responsibilities. This has also been found to be contradictory within the views of employees as more structure has been identified as a positive thing however the freedom to organize daily work should not be undermined.

To address this issue, two approaches are possible. Taking the way of forcing people to follow up on given processes by an incentive and penalty structure or working on a middle way which serves the interest of both, employee and organization. Which way to take depends highly on the organization itself. While the first one can lead to upset employees, the second one can lead to an “it should fit all but does not fit anyone right” approach resulting in missed opportunities.

In conclusion, there are many factors that effect a BPM initiative, many of them specific to the organization being considered. However, there are also some underlying ideas that will help successful BPM implementation. In a top-down management approach, the BPM initiative must be supported and encouraged by the top management and the existing process landscape needs to be developed to reflect the employee's needs. Once these two issues have successfully been addressed, it has been identified by the employees that they also need to be listened to. For a successful BPM initiative, management must allocate the initiative the time and resources that it requires, shifting from a short term profit view to a long-term profit view and changing the management philosophy. Finally, it is important that new process orientation within the company allows the employees flexibility within their work to maintain creativity, pride in their work and personal self-worth. Allowing employees to maintain their individuality is paramount for enabling the employees to feel valued in the workplace.

A BPM initiative can be successful in many different ways and, contrary to that, can fail in many different ways. It is important to consider the individuality of the company and the employees that work there and what is needed for both when implementing BPM. Finally, BPM is not a short term approach and needs to proper time and resources and consideration allocated to it when it is first being implemented to ensure its long-term success. There is not a lot of existing research investigating into the coherence of BPM and SMOs and even less research is following up on a specific case study. This work has shown that already identified factors for successful BPM implementation do also fit to a high percentage on a specific SMO but the relevance of the individual factors vary. More research is needed to investigate into the appearance of “visible“ and “invisible“ problems and how to properly address them.
The key limitation for this work has been identified to be the one of time, having the highest influence when trying to put theory into practice. With BPM related problems and fields of tension between management and employees in regard to process implementation identified, the addressing of this problem would be the next step to validate that the identified problems are the ones to address and lead to a successful BPM initiative. Also, more research is needed to validate the approach followed in this research work by identifying problems and gaps in a specific organization on all levels and to address the specific problems within a SMO resulting in a better understanding about the applicability of BPM in SMOs and to overcome preexisting constraints within the organization. By following the same approach, the methodology of the research work can be verified and further steps to address the existing problems can be initiated.

Another issue that needs further research, when considering the topic of BPM for SMOs, is the identified trade-off between flexibility and structure within an organization. Addressing this issue can help an organization to balance their approach towards flexibility and identify the costs for this flexibility.
Chapter 7

Ethical Implications Regarding BPM

At first glance, it would be easy to believe that there are no ethical implications within BPM. However, taking a closer look reveals that there are most definitely ethical issues regarding BPM. While the ethical issues surrounding BPM have not been identified by the interviewees explicitly, individual requirements for process implementation show the possible tension between BPM and employees.

BPM is about allowing a business to become process-oriented. With a number of employees, process orientation is about getting a particular task done in a predefined and structured way. This task then will get executed according to previous defined structure, which is the process. This simplistic view on BPM may not be a holistic one, but acknowledges the possible tensions between the employee's interest of feeling responsible and important and the organization's interest in achieving higher operational excellence.

From an organizational point of view a high level of process orientation and standardization leads to anticipation of improved time, cost and other business related factors like customer satisfaction, throughput time or better transparency. Performance can be compared and followed up on out using quantitative data rather than experience and feeling (qualitative). Problems with processes within the organization can therefore be easily identified and can be adapted to represent the current market situation. The employee's points of view have been analyzed in the discussion chapter of this thesis. Employees do not want their competencies to be undermine by processes and to keep a certain degree of freedom when performing tasks.

BPM in its maturity can shift the focus of an organizations asset from being people to being process as seen in Smart et al. (2009). With clearly defined process chains that interact with each other, competencies of employees can be
taken away by defining the task that has to be performed. The extreme focus on process and protocol could cause individual employees to feel undervalued within the organization as the required specific knowledge is within the process, rather than the individual. The replacing of the single employee is simplified form an organizational point of view. This could lead up to a point where employees are chosen by “the best to perform the task“ instead of “the most competent person“.

To tackle the tension between employees and organizations, a careful process design is necessary which allows the employees to still bring in their own competencies making them not only feel important, but that they are important for the company.

Another ethical concern related to BPM is that higher process orientation through standardization could restrain the individual's development on the workplace. For SMO's this is an important point. Due to the lack of resources employees are often required to have more of an all-round character instead of being specialized in a certain field of knowledge. This al-round knowledge is often acquired at the workplace of the specific organization. Higher process orientation can reduce the need for “all-rounder“ and focus more onto the key competencies of experts by a higher degree of standardization limiting the individual development of employees into different field of knowledge and therefore limiting the individual development. Also, the ability to take the broader view, which is often necessary to identify cross functional issues, can be limited by applying BPM.

Streamlining processes are of special importance in production areas. Having a high degree of standardization within the production environment allows a replacement of employees by higher throughput times while demand stays equal or through the use of robotics. With BPM having the ability to increase throughput times not only in a production environment, the replacement of employees could be a result if market growth is stagnating.
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