

Quality Measures for Documentation of Best Practices

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Abstract

Research has identified a set of factors that may impact the success of implementing a best practice (BP). One such factor is to properly document the BP. Without a high quality documentation of BPs it might be difficult to understand and implement BPs within an organization. Therefore, we propose a set of quality measures (QMs) for BPs categorized in the form of a template, aimed at supporting the quality enhancement of documented BPs. The proposed template can be applied during the design of BPs in order to support the construction of high quality documentation of BPs, but can also be applied during the evaluation of already designed BPs. A tentative template was designed based on both a literature review and our own experiences in the area of Knowledge Management. We evaluated the tentative template by presenting it to practitioners and academic experts in the area of BP. Based on their evaluation we refined the model in an iterative approach, adjusting the QMs after each practitioners' and academic experts' input until we reached a final template. In this paper, we present the final template of QMs, and demonstrate its feasibility by applying it to existing BPs from a real-life organization. The research methodology applied was design science research.

1. Introduction

While we move towards the knowledge era, knowledge has become one of the most important elements in our daily life [1]. Currently, most organizations and individuals have begun to appreciate knowledge as a valuable intangible asset. Since the mid 1990s, many organizations have organized their Knowledge Management (KM) practices in response to this growing trend.

The process of KM practices involves several activities. Knowledge sharing is critical to an organization's success as it leads to the acceleration of knowledge deployment to portions of the organization that can significantly benefit from it [1]. An important means for knowledge sharing is Best Practices (BPs).

The knowledge of the practices in organizations often becomes embedded not only in documents and repositories but also in organizational routines and processes. Organizations have initiated the documentation of BPs to encourage the sharing of skills and experiences between employees [2, 3]. The BPs have been instigated with the understanding that employees would improve their practices by having access to knowledge from all corners of the organization. Subsequently, organizational effectiveness and profitability would increase.

Despite the importance of BPs for KM within organizations, the conceptual understanding of BP is not without confusion. Szulanski defines BP as "an internal practice that is performed in a superior way in some part of the organization and is deemed superior to internal alternate practices and known alternatives outside the company" [4]. However, Fragidis and Tarabanis argued that the concept of BP is not used in a strictly literal manner. Rather than being considered superlative, BPs are sometimes only understood as promising approaches and activities that organizations may consider as useful tools and experimental practices [5]. The American Productivity and Quality Center also noted that there is no all-encompassing BP because the concept *best* is not universally agreed to and each practice has to be adapted to suit distinctive organizational contexts [6]. Furthermore, the benefits of BPs are not limited to sharing superior practices to accomplish a particular task, but include the opportunity of gaining from learned experiences and the mistakes and failures of others. Therefore, many researchers recommend the use of concepts such as "good", "smart" and "recommended" practices instead of "best" practices [7]. In this paper, we use the concept of BP, defined as "a method or technique that provides an effective means for achieving a goal in a certain context compared to other means"[7].

The rest of the paper is structured as follows: the second section explains the research motivation behind writing the paper, i.e. presents the problem addressed in the paper. The research process carried out to address the problem is presented in section three, and in the fourth section we discuss the design of the presented solution, i.e. a template of quality measures.

The fifth section deals with the demonstration of the artifact, followed by the conclusion and future research in the last section.

2. Research motivation

There are many examples of successful and non-successful implementations of BPs as revealed by [8, 9, 10] and [11, 12, 13], respectively. Research has also identified a set of factors that may impact the success of implementing BPs within organizations, such as organizational culture [2, 14, 15] and the engagement of management and practitioners [16, 17]. Another important factor in the successful implementation of BPs is their quality [18, 19, 20], meaning that BPs need to provide insights into systematic knowledge program, employee development and the relationship between organizational performance and KM efforts.

Related to the quality of BPs is the way they are described or documented [21]. Without a properly documented BPs, it is difficult to share BPs within an organization. The practical problem to be addressed in this paper is the difficulty in implementing BPs because of low quality documentation of the BPs within an organization's knowledge repositories.

Low quality documentation of BPs can prevent the success of utilizing BPs as a means of knowledge sharing. Examples of such low quality documentations include: that the purpose and value of a BP is not clearly stated; that the description of the BP is not detailed enough to be easily applied; and that the earlier experiences of applying the BP are not presented. The need for quality BP documentation is also supported by research, for example, researchers have emphasized that the lack of understanding the purpose of a BP and failing to measure the value of knowledge within a BP are major barriers in managing knowledge [21, 22]. When translated into business applications, this results in a limited use of BPs in light of a failure to understand the true nature and purpose of the required practice. Therefore, quality measures for evaluating the way BPs are documented can be a useful means for designing successfully implemented BPs. In this paper, a quality measure (QM) is defined as a property of the way BPs are documented, which may impact the success of their implementation.

Hall and Rainey argued that clear documentation helps to describe the degree to which organizational activities are apparent and clearly specified in written templates [23, 24]. This is especially true when the templates provide distinct descriptions, regulations and expected results for successful activities. This supports our proposal for using an artifact for securing high quality documentation of BPs within organizations in

order to improve their success. The importance to formulate knowledge by quality standardized documents is also stated by [3, 7] For example, Axon claims that quality standardized document can support the need to determine what BPs are and what practices are not able to measure [3].

There is also a knowledge gap that motivates the research presented in this paper. Much of the research on BPs has focused on culture, information technology (IT) and leadership as important considerations for the success of implementing BPs [2, 14, 15, 16, 17, 25]. However, no systematic work exists on characterizing a collective set of QMs for the way BPs are documented. This statement is based on a literature review performed, searching for papers describing QMs, criteria and guidelines for BPs. The search included journals and international conferences related to KM using e-resources such as ACM Digital Library, Emerald, ScienceDirect (Elsevier), SpringerLink, Wiley, IEEE Xplore, Google Scholar and Association for Information Systems Electronic Library (AISeL). No systematic work consisting of a set of QMs for the way BPs are documented was found. It is this apparent knowledge gap that motivated the presented research. An appropriate set of QMs will help organizations to keep in mind the important issues that should be dealt with when designing and implementing a KM approach. Ignorance of the important aspects regarding BPs will likely hinder an organization's effort to realize its full benefit.

This paper provides an integrative comprehensive perspective of QMs for BPs in order to facilitate implementations of BPs within organizations. More precisely, the goal of this paper is to present a set of QMs, categorized in the form of a template for BPs, and which serves as a means for effective BP documentation. This template of QMs can be applied during the design of BPs to support the construction of high quality BPs. Additionally, it can also be used to evaluate the quality of already designed BPs. The template, and its included QMs and suggested categorization of the BPs, have been specified based on literature and our own experiences. The template, and its included parts, was refined during iterative evaluation activities with practitioners and academic experts on BPs.

The research methodology used in our research is design science research, in which a solution (in our case, the template of categorized QMs) is designed. The solution is focused on three requirements, which are listed and motivated below:

- The solution needs to be *easy to use*, which means the degree to which the solution is easy to apply for practitioners in achieving their goals. The major users are IT managers,

business analysts or business and IT developers.

- The solution needs to be *complete*, which means that the solution shall consist of an exhaustive set of necessary QMs.
- The solution needs to be *used for both the design and evaluation of BPs*, which means that the solution shall support both design of high quality BPs and the quality evaluation of already designed BPs.

The reason for stating a limited set of requirements on a solution is that a solution cannot normally manage all kinds of requirements when addressing a problem. Instead, it needs to focus on a certain number of requirements, which need to be clearly stated, see discussion in Peffer et al. [26].

3. Research process

This section describes the research methodology used and the main activities of our research process. The research methodology used for designing our solution was design science research. Design science research is characterized by creating solutions, called artifacts (i.e. constructs, models, methods, frameworks, prototypes and information technology systems) to address and solve practical problems [27].

Design science research has been contrasted with empirical research, that is, natural and social science. Empirical science can be viewed as describing and explaining the actual world in the present and the past, while design science research can be regarded as an activity aimed at generating and testing hypotheses about the future, by using artifacts to address a particular problem when introduced into an organization [28].

Peffer et al. have presented a process for design science research consisting of the following six activities [26]:

Problem identification and motivation: The first activity in the design science research process is to identify a practical problem that justifies why the artifact (i.e. in our case the template of categorized QMs) needs to be designed. The practical problem encountered here is the difficulty of implementing BPs because of low quality documentation of the BPs within an organization's knowledge repositories. The knowledge gap that further motivates the research presented in this paper is that no systematic work exists on characterizing a collective set of QMs for the way BPs are documented. To confirm this statement a literature review was carried out, searching for papers describing QMs, criteria and guidelines for BPs. No such systematic work was found in the review.

Defining objectives of a solution: The second activity in the design science research process is to describe desirable objectives of the artifact, in this paper interpreted as requirements on the artifact. These requirements guide the design of the artifact and form the basis for its evaluation. The following requirements have been specified for our artifact (see also end of section 2): the artifact needs to be easy to use; it needs to consist of a complete set of necessary QMs; and it needs to support both design of high quality BPs and the quality evaluation of already designed BP..

Design and development: The third activity in the design science research process is to describe the final artifact including how it is designed. In our research, a tentative artifact was first designed based on an in-depth literature review and our own experiences. Practitioners and academic experts then evaluated this artifact in order to further refine it. This was done using an iterative approach by refining the artifact after each input from the practitioners and academic experts.

Demonstration: The fourth activity in the design science research process is to demonstrate the artifact's application in an illustrative or real-life case. It is through this demonstration that the feasibility of the artifact can be exhibited. In this paper, a demonstration was carried out by applying the artifact to existing BPs from a real-life organization.

Evaluation: The fifth activity in the design science research process is to evaluate if the artifact solves the identified problem and fulfills the defined objectives (that is, the defined requirements). The evaluation was done in two ways. First, the design and development of the tentative artifact was guided by input from practitioners and academic experts, inspired by ideas presented by Sein et al. [29], i.e. the artifact was refined in an iterative manner after each input. As part of this input, the practitioners and academic experts also evaluated if the artifact solved the identified problem and fulfilled the defined requirements, see section 4. Second, the artifact's feasibility was demonstrated by applying it to existing BPs from a real-life organization. See section 5 for more details.

Communication: The sixth activity in the design science research process is to disseminate the research carried out to both researchers and practitioners, e.g. in the form of academic write-ups, such as this paper.

4. Design and development of the tentative and final artifact

In this section, the process of designing the artifact is presented. First this section describes how the tentative artifact was designed, and then how it was refined to become the final artifact. This section also

describes how the artifact was evaluated during its refinement.

Design of a tentative artifact

The first step in the process of designing a tentative artifact was to carry out a literature review. The literature review was carried out by searching for papers describing QM for BPs. Our search terms, used in various combinations, were “quality measures” (and similar terms such as “criteria” and “guidelines”) and “best practices” (and similar terms such as “good practices” and “recommended practices”). The search involved selecting databases with e-resources, which included journals and international conferences related to KM. The e-resources selected were ACM Digital Library, Emerald, ScienceDirect (Elsevier), SpringerLink, Wiley, IEEE Xplore, Google Scholar and Association for Information Systems Electronic Library (AISel). This literature review also showed that included journals and international conferences did not present any systematic work of QMs for the way BPs are documented.

The second step was to design a tentative artifact based on results from the literature review and our own experiences. The experience-based input was based on our research in KM and enterprise modeling, including designing and applying BPs.

The designed tentative artifact consisted of 37 QMs categorized in 10 categories. In general, the QMs were identified based on our experiences and the categorization was identified in literature. The categories and their QMs, are listed below:

- General style of BP:

This category includes QMs to ensure that BP documentation provides: simplicity of description and terms; ease of use; suitability to users’ needs; relevance of knowledge content; and standardization of a knowledge structure or ontology [3, 8, 30, 31].

- Summary of BP:

This category includes QMs to ensure that BP documentation provides a title and summary that serves to highlight, briefly, the most important aspects of the BP [3, 8, 32].

- Motivation:

This category includes QMs to ensure that BP documentation provides clear motivation for BP utilization, in other words, justifying the need to apply BP by providing information about why the BP is better than alternative practices, and by providing information about the context and situational elements that are relevant to the users that aim to employ the BP [3, 4, 8, 32, 33, 34].

- The core BP knowledge:

This category includes QMs to ensure that BP documentation provides the core knowledge, which includes: information about the problem to be addressed by the BP; the different steps of the BP; and for each of these steps useful guidelines/rules/principles to be applied. Also, the expected results/outputs/outcomes of applying the BP need to be included [8, 10, 25, 32, 35, 36].

- Requirements for applying BP:

This category includes QMs to ensure that BP documentation provides information of necessary requirements for implementing the BP and circumventing any problems or obstacles that may arise before, during, or after its application. Requirements for BP application include factors such as needed competencies of employees and the time needed for appropriate implementation [3, 25, 32, 37, 38, 39, 40].

- Previous results and experiences:

This category includes QMs to ensure that BP documentation provides descriptions of previous results and experiences of past BP employment. This documentation should include both the successes and failures encountered when employing the BP with some possible examples of situational applications. Also, an illustration of the financial benefits resulting from BP applications can serve to justify the economic value of applying the BP to an organization [3, 5, 10, 32, 33, 41, 42, 43].

- Categorization support:

This category includes QMs to ensure that BP documentation provides effective categorization by highlighting quintessential aspects of the practice that reflect its intended use and targeted application strategy. Such categories can be used for indexing, storing and retrieving specific BPs among a large quantity of BPs in a database. Some of these aspects include whether the BP’s *scope* is intended for individuals, groups or enterprise, and if the BP is best served when applied to strategic, tactical or operational situations. Other aspects include diverse categories such as degree of formalization, competitive versus collaborative increases, measurement of BP effectiveness and areas of BP implementation within the organization’s formal structure [36, 41, 44].

Artifact refinements

In order to evaluate and refine the tentative artifact, we carried out interviews with practitioners and academic experts in the area of BP. For each of the interviews, we presented the problem that the artifact aimed to address, the goal of the artifact, as well as the requirements on the artifact. Based on these topics we asked the interviewees using open-ended questions

about their overall opinion of the artifact. They were asked to evaluate potential benefits and drawbacks, and how, in their opinions, the artifact could be enhanced. The interviewees also needed to provide opinions about each of the QMs. Furthermore, the interviewees needed to address questions about whether or not the artifact addressed the practical problem and fulfilled its stated requirements (i.e. if it is easy to use, if it consisted of a complete set of QMs, and if it could be used for both design of new BPs and the evaluation of already existing BPs). Finally, the interviewees were asked to assess each QM's level of importance for designing and evaluating BP by using a Likert scale with values ranging from 5 to 1, where 5 represented "strongly agree" and 1 "strongly disagree." We decided to use a 5-point Likert scale because prior related studies used a similar scale [e.g. 45, 46].

The refinement process

The results of the feedback from practitioners and academic experts enabled us to refine the tentative artifact in a series of refinement phases, described below (and more in detail described in Appendix 3):

Refinement Phase I (Interview 1):

The first interviewee was an academic expert as well as a practitioner in the area of information systems (IS), KM and BP. This interviewee has also been responsible for implementing a BP database in a large organization in Sweden. We interviewed her and introduced our tentative artifact, which at the time comprised of 10 categories and 37 QMs. Based on her feedback we modified the tentative artifact accordingly to include only 7 categories and 35 QMs. We also partly reorganized the categories since she suggested that the categories in the template should follow the same sequential order in which a BP was normally documented. Moreover, she recommended rephrasing some QMs into more layman terms, which we did. Finally, she recommended adding a QM that showed how the BP is to be used in a specific situation, which we also did (see Appendix 3 for detailed description of all the changes).

Refinement Phase II (Interview 2):

The second interviewee was an academic expert in IS and KM with some practical experiences in designing BPs. He suggested rephrasing and combining some of the components and the QMs. Based on his recommendations, the tentative artifact was further refined to then include 7 categories and 32 QMs.

Refinement Phase III (Interview 3):

The third interviewee was an academic expert in KM. She suggested rephrasing and combining some of the QMs. Based on her recommendations, the tentative

artifact then included only 30 QMs but still consisted of 7 categories.

Refinement Phase IV (Interview 4):

The fourth interviewee was an academic expert in KM. She suggested rephrasing and combining some of the QMs and reorganizing the QMs into a more logical order for documentation. She added a QM that was geared at getting user feedback after applying the BP. Based on her recommendations the tentative artifact remained at 7 categories and 30 QMs.

Refinement Phase V (Interview 5, 6 and 7)

We interviewed two more academic experts in KM and an additional practitioner responsible for KM projects within a multinational organization, which has 69,000 professionals working within 400 local offices in 40 countries. These three participants strongly recommended maintaining the QMs after some minor rephrasing of them. Based on their recommendations, the final artifact, which can be found in Appendix I, comprised of 7 categories and 30 QMs. A description of how the artifact was refined during each refinement phase is shown in Appendix 3.

The evaluation during the refinement process

During the refinement process, the artifact was also evaluated by the same practitioners and academic experts, i.e. the interviewees were answering questions whether or not the artifact addressed the practical problem and fulfilled its stated requirements. Following is a summary of the results for each of the interviewees' evaluations. (Note that interviewee 1 was not asked to answer the evaluation questions, therefore, there is no evaluation result presented for interviewee 1).

Interviewee 2 claimed that a potential drawback of the artifact was the extra workload of documenting BPs according to the QMs. Some employees may resist this extra workload. Moreover, he stated that the relations between the QMs are not specified in detail, which is a drawback. He stated that the benefits of the artifact are that it seemed to be easy to use, that it seemed to contain an exhaustive set of QMs, and that it could be used for both the design of BPs and the evaluation of already existing BPs.

Interviewee 3 emphasized the need for understandable QMs because this would encourage users to document according to the QMs. This interviewee stated that the artifact seemed to be easy to understand, and, therefore, was a promising contribution to enhance the quality of the documentation of BPs. She also stated that it was not possible to judge if the artifact consisted of a complete set of QMs. Similar to Interviewee 1, she claimed that

the artifact could be used for both the design of BPs and the evaluation of already existing ones.

Interviewee 4 provided positive feedback regarding the structure of the artifact. According to this interviewee, a benefit to the artifact was that it could support a logical and systematic way of working with BPs. A potential drawback to the artifact was that it had not yet been tested in real-life organizations where BPs are designed and used. She stated that the artifact was easy to use, seemed to be complete (after adding one suggested QM), and could be used for both the design of BPs and the evaluation of existing BPs.

Interviewee 5 claimed that if a developer believed in a BP, she/he would be encouraged and motivated to document the BP in a high-quality way. The designed artifact could support such a mode of documentation. He stated that the artifact was easy to use, and that the artifact seemed to have a complete set of QMs, but needed to be tested within organizations to assess its actual applicability. He also claimed that the artifact could be used for both the design of BPs and the evaluation of existing BPs.

Interviewee 6 stated that the structure and components of the artifact were promising. The artifact could guide users by providing hints or suggestions on how to document BPs without framing or limiting a user's own insights on how best to do so. He stated that the artifact was easy to use, seemed to be complete, and could be used for both the design of BPs and the evaluation of already existing BPs.

Interviewee 7 also claimed that the structure of the artifact was promising and supported the method of documentation implicit within it. He stated that the artifact was easy to use, seemed to be complete, and could be used for both the design of BPs and the evaluation of existing ones.

The interviewees were also asked to assess each QM's level of importance for designing and evaluating high quality documented BPs using a Likert scale with values from 5 to 1, where 5 represented "strongly agree" and 1 "strongly disagree". The results for each of the QMs and for each of the interviewees are described in Appendix 2. The first interviews resulted in a low assessment of our QMs. Every single suggestion from the interviewees was cross-referenced with the suggestions made by the other interviewees. After refinement, we noted that the revised QMs received higher assessment results from refinement phase IV onwards. This indicated that our efforts in artifact refinement helped to obtain higher assessment ratings later on.

5. Demonstration

For investigating the feasibility of the final template of QMs, we carried out a demonstration by applying the QMs to existing BPs from a real-life global organization in Sweden. The organization had categorized their BPs into four areas: temporal management practice, incident failure management practice, change system management practice and request user management practice. We asked a domain expert from the global organization to select four BPs, one from each category. We also asked him to apply the final template of QMs on each of these BP descriptions in order to (1) evaluate the template of QMs by identifying benefits and drawbacks of the template based on the problem that the template aimed to address as well as the requirements it aimed to fulfill and (2) evaluate the quality of the documentation of the BPs of the organization using the template.

Based on the application of the final template of QMs on four BPs, the domain expert claimed that the template could be used to standardize documented BP, which can support the organization in unifying its BP documentations. Thereby, it would be easier to document, store and retrieve BPs in databases, and support promotion of creating a learning and knowledge-sharing atmosphere within the organization. Another benefit of the artifact, stated by the domain expert, was that the template and its QMs are easy to understand and can support both the design of new BPs and the evaluation already existing ones.

The expert did state, however, that regarding the completeness of the artifact, the QMs of the template needed to be somewhat adapted in order to fit into the needs of different organizational area, department, or work processes. For instance, the BPs related to the human resource department did not seem to need some of the QMs (i.e. QM 11, 15, 24 and 25, see Appendix 1) as the BPs in this area did not require such information. Moreover, the expert stressed that some of the QMs for the BPs in the technical department are more important than others (i.e. QM 1, 2, 3, 5, 9, 13, 19, 20, 27, 28). The expert also stressed that more QMs related to technical oriented practices were needed. For instance, there need to be more specific details regarding information about which operation system version is relevant to the application of the practice. Also, for the incident failure management practice, the description of BPs should include a specific template form for supporting the documentation of how to identify, analyze, and correct abnormal incidents.

The application of the final template of QMs on BPs in the real-life organization also provides a concrete example of how the template could be used for evaluating existing BPs in organizations. As part of the demonstration, the domain expert in the real-life organization was asked to evaluate the BPs of the

organization. He was asked to provide for each BP and each QM a value between 5 and 1 (i.e. using a Likert scale), where 5 represented that the QM for the BP is “strongly fulfilled” and where 1 represented that the QM for the BP is “not fulfilled”. For example, the QM that “BP shall describe in which respect it is better than other alternative practices” was given a value between 5 and 1 for each evaluated BP by the domain expert.

Based on such an evaluation, the organization could in the future decide, as part of a project for enhancing the quality of BP documentations, that each BP in the organization needs to have a total value for all its QMs that exceed a certain minimum value in order to be accepted as a BP. The organization could also decide that a specific QM (such as the QM that “BP shall describe problems/challenges that the BP addresses”) needs to have the highest value (i.e. value “5”) for all BPs in the organizations in order to be accepted as a BP, etc.

6. Conclusion and future research

In this paper, we have presented an artifact comprising of a set of quality measures (QMs) supporting the documentation of high quality BPs. The QMs are categorized in the form of a template. A tentative template which categorized QMs was first designed based on a literature review and our own experiences. The tentative artifact was then refined in an iterative manner by showing it to practitioners and academic experts. During a series of refinement phases, the artifact was also evaluated. This evaluation showed that the artifact seemed to be easy to use, seemed, after adding some QMs, to contain a complete set of QMs, and could be used for both the design of BPs and the evaluation of already existing ones

When evaluating the refinement of the tentative artifact, one interviewee claimed that the artifact did not specify the relations between the QMs. This is an important issue to address in future research. The same interviewee also saw the potential risk of resistance among employees to the added task of documenting BPs according to the QMs. This indicates that the artifact needs to be introduced in a systematic manner using an introduction method, which is a future endeavor.

The evaluation during the refinement of the tentative artifact also indicated that the artifact needed to be tested in real-life situations to further establish its relevance. This is an important issue to address in future research, but we did, tentatively, apply the final artifact to BPs from one real-life organization in order to demonstrate its current feasibility. This demonstration showed promising results regarding

understandability and showed that the artifact could be used to support documentation when designing new BPs as well as when evaluating already existing ones. The demonstration also showed the need to adapt the QMs for BPs in specific areas, departments or work processes because they may require different, specialized, QMs. For the most part, however, the QMs were common for all of the areas. This issue regarding the completeness of the artifact is important for future research. It requires additional empirical investigations where the artifact can be applied in real-life organizations, which are already using BPs in their KM practices. The relationships between KM practices, BP quality and quality documentation of BPs are also important issues for future research. In order to fully investigate these relationships, applications of the template on existing BPs in real-life organizations is needed as well.

7. References

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Appendix I:

Component	Quality Measures/ Check list
General style	1. BP shall include the essential elements of its nature.
	2. BP shall contain a dramatic climax or some information that highlights what is most important in the BP.
	3. BP shall contain information of the date when it was written and who wrote the BP.
Summary of BP	4. BP's summary shall encompass the most significant and identifiable aspects of the BP.
	5. BP's summary shall contain information about the area/field in which the BP is to be applied.
	6. BP's description shall include a summary or abstract outlining the BP.
Motivation for using the BP	7. BP shall describe the advantageous outcome of its application.
	8. BP shall describe in which respect it is better than other alternative practices.
	9. BP shall describe the targeted user or the role of the BP.
	10. BP shall describe the context/situation to determine if the BP is relevant or not.
Core BP knowledge	11. BP shall describe problems/challenges that the BP addresses.
	12. BP shall have information to solve different types of similar problems or variations of the problem.
	13. BP shall have guidelines/rules/principles describing a clear method for replicable application of the BP.
	14. BP shall describe the expected results/outputs/outcomes of applying the BP.
Requirements for applying BP	15. BP shall describe the supplementary and peripheral means that are necessary to be able to apply the BP.
	16. BP shall describe the potential ability and skill of the end-user to apply the BP.
	17. BP shall indicate an estimation of time/costs needed to apply the BP.
	18. BP shall describe the obstacles/unexpected problems that may occur before, during, and after the application of the BP.
	19. BP shall describe procedures to follow if certain obstacles/unexpected problems are encountered.
Previous result and experiences	20. BP shall have references to previously successful and/or failed applications of the BP.
	21. BP shall describe the results of previously successful applications of the BP.
	22. BP shall describe the possible failure that may occur from applying the BP.
	23. BP shall show example(s) (i.e. a demonstration) that illustrates how the BP can be used in a specific situation.
	24. BP description shall contain user feedback assessing the productivity or payoff or economic advantages of the current BP documented.
Categorization support	25. BP shall be classified as being aimed at increasing the competitiveness of a product or service or increasing the internal collaboration within the organization.

26. BP shall be classified as belonging to the type of (strategic, or tactical or operational) planning that BP is focused on.
27. BP shall be classified as belonging to an organizational scope that is (an individual, a group or enterprises).
28. BP shall be classified as being implemented in a Technical, a Business and/or a Management area.
29. BP shall preferably be measured in qualitative or quantitative measures or a mix of them.
30. BP shall be classified to its degree of formalization as formal, semiformal or informal.

Appendix 2:

QMs List	Interviewee 2 Assessment	Interviewee 3 Assessment	Interviewee 4 Assessment	Interviewee 5 Assessment	Interviewee 6 Assessment	Interviewee 7 Assessment
1	2	3	4	4	4	4
2	5	4	5	5	3	4
3	4	4	5	3	5	4
4	5	1	4	5	4	4
5	4	5	5	3	4	4
6	5	4	5	5	4	4
7	5	5	5	2	4	4
8	3	1	3	4	4	4
9	3	5	5	4	4	4
10	5	4	5	4	3	4
11	5	5	5	5	4	4
12	4	4	5	4	3	4
13	4	3	5	4	5	4
14	4	5	5	4	4	4
15	3	4	5	3	5	4
16	4	4	5	3	5	4
17	3	4	5	2	3	4
18	4	4	5	4	3	4
19	4	4	5	3	5	4
20	4	4	5	4	3	4
21	3	5	5	3	3	4
22	4	3	5	4	4	4
23	4	2	5	5	4	4
24	5	5	5	5	5	4
25	1	1	4	3	2	4
26	2	5	5	5	3	4
27	2	5	5	4	4	4
28	3	4	5	4	3	4
29	3	5	5	3	2	4
30	1	1	4	4	2	4