

Implementation requirements for knowledge management components into ERP Systems: Comparison of software producers and companies

Bachelorarbeit

Zur Erlangung des akademischen Grades „Bachelor of Science (B.Sc.)“ im
Studiengang Wirtschaftswissenschaften
der Wirtschaftswissenschaftlichen Fakultät
der Leibniz Universität Hannover

vorgelegt von

Name: Wellbrock



Vorname: Patrick



Prof. Dr. Michael Breitner

Betreuerin: Kathrin Kühne

Hannover, den 11.08.2015

Contents

List of Tables.....	i
List of Figures.....	i
List of Abbreviations.....	i
1. Introduction	1
2. Theoretical Background	3
2.1 Knowledge Management using ERP Systems	3
2.1.1 Types and Components of Knowledge Management	4
2.1.2 Related Work	9
2.2. ERP Systems in the Use of Knowledge Management Systems	11
3. Research Design and Methodology	14
3.1 Objective and Approach	14
3.2. Preparation and Procedure of the expert interviews.....	15
4. Empirical Investigations.....	17
4.1. Illustration of Expert Interviews.....	17
4.2. Analysis of Requirements and Results of the Investigation.....	27
4.2.1. Companies.....	27
4.2.2. Software Producer.....	30
4.3. Reference Model.....	31
4.4. Recommendation for Research and Practice.....	32
5. Discussion and Limitations	34
6. Conclusion and Outlook	37
List of references	iii
Appendix	v
Ehrenwörtliche Erklärung.....	xxvii

1. Introduction

Relevance

Although the acquirement and management of knowledge is an important factor in present-day companies, knowledge management has still a low status in enterprises. Reason for this is the difficulty to quantify knowledge in general as a key business indicator. Particularly small- and medium sized companies have not realized the potential of knowledge management. Another aspect that has to be mentioned is the fact that this topic is still young whereby easy-to-use approaches and tools for management have not been offered. At the same time, knowledge management is more important than ever for a number of reasons including. First of all, the demographic change leads to an ageing society, challenging companies with the problem in finding the required replacements. That is the reason why investing in suitable knowledge management tools can facilitate the creation and preservation of knowledge within an enterprise. Technical progress may be another reason why knowledge management has to be focused, involving a fast process of change. Hence, company-specific knowledge has a shorter lifespan than it was previously the case which is why skills of employees have to be updated constantly. Moreover, because of high labour turnover rates, company managers have to take great care in maintaining knowledge and competences of personnel leaving the employment.

Objectives

This thesis is written to figure out more about requirements of knowledge management software from companies and how they are implemented by software producers. The coordination between those two parts is of great interest. Furthermore, it should be examined what kind of components are included in knowledge management software and whether the empirical results correspond to the theoretical basics. It will be also important to evaluate the given answers of the respondents in the sense that the necessity of knowledge management software will be intensively discussed.

Structure

Firstly, this thesis is generally structured into two parts: the theoretical background of knowledge management as well as the empirical work based on the interview results. At the beginning, important definitions have to be clarified and knowledge management objectives are illustrated. Due to the fact that this thesis refers to knowledge management software, different instruments and tools have to be shown. The related work refers to pre-existing findings about the requirements from companies and the requirements for software providers. Afterwards the theoretical information is used to analyze empirical findings. On the basis of this, the results will be discussed, including the theoretical background as well as the related work, in order to respond to the main research question: “Which variety requirements exist for the implementation of knowledge components into ERP Systems for software producers and users?” Finally, the requirements of sustainable corporate success will be concluded in a summary.

The following figure provides an overview about the main structure of the thesis.

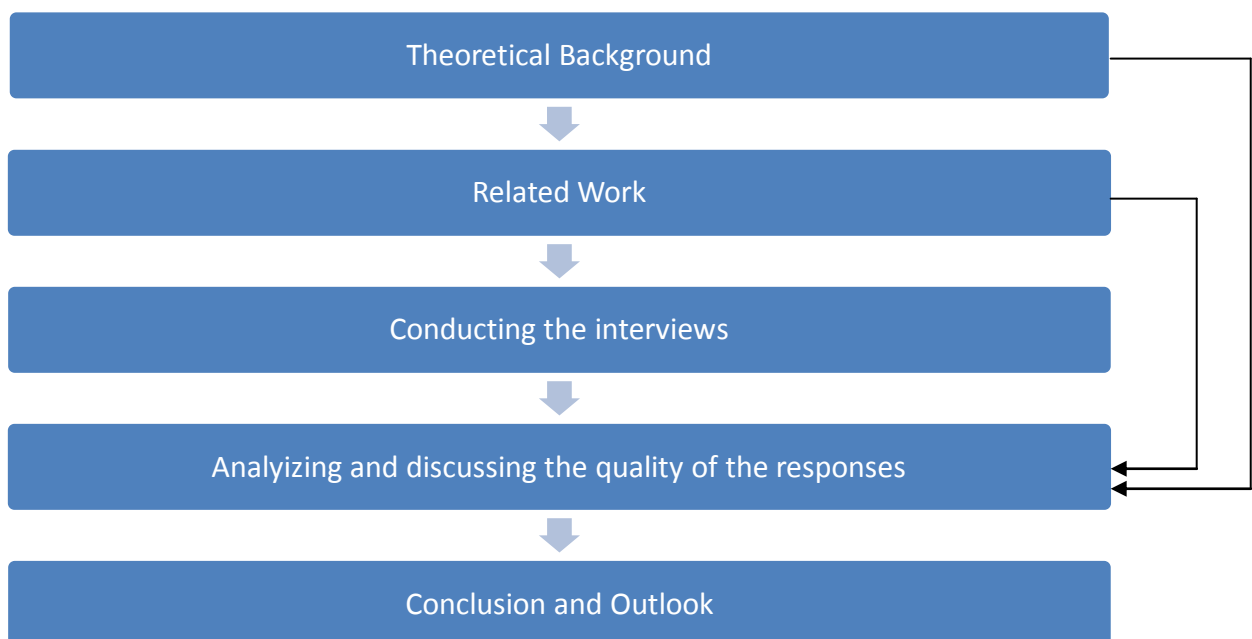


Figure 1: Elements of this thesis

more precise. Moreover, a heterogeneous number of producers and users impede an appropriate comparison between these two groups. It is obvious that interviewing only three producers cannot cause several different insights such as seven knowledge software users. The reason for this lies in the fact that the knowledge software market in Germany has just a small market presence. In addition to that, the term "expert" is not clearly defined. Therefore, during the surveys, there was also the situation that I was rerouted to employees, who are familiar with the topic, but cannot be characterized as experts. For instance, relating to the question of financial success with knowledge software, interviewees could not respond in an adequate level.

It would have been also helpful to receive perceptions from different sized companies. The sample comprises only medium- and large-sized companies. The problem here is that small firms often do not provide information whether they use or not use knowledge management. Additionally, it is more difficult with small firms to get into contact with them. Relating to the theoretical background, small companies do not see the need of knowledge management software. In this connection, it would have been interesting to find out why small firms do not participate in knowledge products.

6. Conclusion and Outlook

The main aim of this thesis was to constitute and analyze the fundamental requirements of knowledge management software to enhance the management and employee situation. This is compounded with the observation of the software producer level. In order to get a deeper insight into knowledge management usage and production, interviews with experts of chosen companies help to get information and opinions.

From the theory it is known that knowledge management should help to develop, retain, identify and distribute knowledge in a company. KMS can be implemented in knowledge software to reach these goals. The interviews with the experts showed that most of the users were satisfied with the software functions and that they do not regret implementing knowledge software because many company domains benefit from the usage. In general, the organization within a firm gets more efficient, the management has the opportunity to oversee the business processes and store knowledge for upcoming similar projects. Employees profit enormously through the public knowledge, especially young or new

workers have it easier to adjust to their new role. Fourth, customers of the company can benefit due to a quicker and more efficient processing. The most important prerequisite for achieving this goal is that requirements of employees should not be ignored. In this connection, the main employee requirements concerning theoretical background and the interview partners are user-friendliness, reliability, security and efficiency. If this is not the case, the user satisfaction will decrease. As a result, knowledge software would no longer be used in an adequate way. This had fatal consequences for the company because potential high implementation costs would not yield a profit in the long run. On this occasion, management and the IT area need to make sure that knowledge software is regarded as useful and beneficial by employees. If this is not the case, companies need to cooperate with software producers in order to find a solution. Knowledge software providers stated in the interviews that they offer further services apart from the software engineering. Here, it is possible to inform them about change requests or software issues. The maintenance is also an offered service. Software producers have concentrated knowledge in their area of expertise and reengineer their software versions constantly to remain competitive. For this reason, users can apply to the providers in order to have to gain sustainable profits.

It was also relevant to examine differences between user and producer statements. It was noticeable that coordination among each other was only mentioned in very few cases. However, this is a critical success factor. Taking all evidence into consideration, one can easily say that a sustainable and success-promising handling with knowledge in a company depends on several key factors, including the right components, useful tools, appropriate requirements and the involvement of the management, employees and the cooperate environment.

In the future, it may be expected that a higher number of models will be developed concerning this matter. Due to the consisting research gap on the side of software producers, it can be assumed that scientific evidences will result in the future. Moreover, the topic data security has just been mentioned a few times, thus demonstrating that there is a gap between theory and practice. Regarding this aspect, knowledge software providers should focus further efforts concerning security of internal knowledge. Even more important is the fact that communication between producers and users of knowledge management software will increase in the in the very next future. With regard to the interviews, too few experts referred to the software producers for working together with them on new

requirements or innovative software products. For these reasons, knowledge management software will be subject of interest in the future, when more and more companies want to acquire knowledge software.