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Knowledge Management Support For Enterprise Resource Planning Implementation

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Abstract

This study addresses the issues of Enterprise Resource Planning (ERP), Knowledge Management (KM) and SECI model (socialization, externalization, combination, internalization). Various research have highlighted the importance of knowledge of ERP users for successful ERP implementation, however a major obstacle from the perspective of integration or knowledge transfer cycle still exists. The main problem in ERP implementation is the difficult integration of tacit (embedded) and explicit knowledge cause most of this knowledge are embedded in ERP external parties (such as consultants, vendors, suppliers, supervisors, experts, and other working partners). The focus of this study is to propose process for transfer knowledge from external organizations into organizations based on the model of SECI. To note that this paper is not to modify the basic model of SECI, but SECI model to making as a function of mediator between the external and internal ERP system implementation in company. The authors used a systematic literature review approach, starts with literature review, problems identification, selection process, assess, synthesize and write down the ideas proposed, and then make conclusions. Finally, the output of this research is a new model (schematic and technical) of the process and transfer knowledge order to maintain and re-use assets from external knowledge obtained during the pre to post ERP implementation to be used jointly by the company.

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1. Introduction

Enterprise resource planning has been implemented by many organizations seeking for a system to integrate various business process across various functions. Much have been discussed about the challenge in implementing ERP systems. One of the issues is that ERP system implementation cycles will occur implementation transition team that resulted is loss of assets knowledge, experience, and tutor of knowledge transfer.

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Another issue is the amount of fund needed to pay trainers, consultants and other external parties. Then, there is also the gap of knowledge and understanding of ERP system itself. Furthermore, users' knowledge, experience and problems is not well documented. Most users fail to document when they encounter problems and eventually find the solutions whereas it can potentially be very useful for other users. Users sent to attend workshop do not submitted a written report on the knowledge acquired during training. Finally, and perhaps the cause of the above issues, is the fact that there have not been a structured and formal processes and mechanisms for knowledge asset management in a company implementing ERP systems.

Successful of ERP implementation is closely related to a specified group of knowledgeable employees as well as effective management of teams' knowledge during development cycle of ERP systems [1]. The main role of knowledge management in ERP implementation process is to facilitate knowledge sharing among team members of ERP system.

However, [2] revealed another problem faced by the ERP team, which is difficulty of integrating an organization's internal knowledge with external knowledge. Another crucial problem of ERP system implementation according to [1] is that employees who use modules must have a good understanding of the business process and thus they must increase their knowledge of ERP systems. This is not an easy task as the ERP system have an internal focus, however there is a great need to integrate with knowledge assets of external parties such as suppliers, consultants, and contractors.

The above issues imply that there seems to be fragmentation in the process of connecting external organizations (consultants and other external parties), which makes integration of knowledge increasingly difficult. Therefore, the needs and solutions required for knowledge integration process can be seen as a theoretical gap in existing literature on ERP implementation, especially during ERP implementation cycle.

In an effort to answer limitations related research in process of knowledge integration, the authors propose a scheme and the cycle of knowledge transfer between external to internal company and collaborate theory developed by [3] SECI model (socialization, externalization, combination, internalization). This idea is also in line with suggestions from previous studied stating that findings from current studies need to be expanded by combining respondents from consultants, users and level of executives involved in ERP system project [4].

2. Literature Review

ERP implementation is a complex process, lengthy, and expensive, usually in millions dollars [2]. Most importantly, in many cases it also requires existing business processes to be re-engineered (business process reengineering) to be adjusted with ERP modules or vice versa. Investments are for software and services such as consulting, implementation, training, and systems integration.

Companies are forced to look at a gap in every ERP implementation process as an effort to minimize failure and maximize capital expenditures. This implies the need to acquire knowledge and experience of external parties (consultants, vendors, suppliers, experts) during the process of ERP implementation. Therefore, companies must begin to change the paradigm in the direction of generating knowledge worker alias knowledgeable workers. For example, employees who work on customer billing need to know more about IT systems of production and accounting. Similarly, the IT experts need to adapt to new system with needs and enterprise systems to operate optimally.

As stated by [5], the implications of ERP systems is that the knowledge sharing process should really be able to penetrate the boundary across divisions and different mind sets about how to do the whole process. In addition, the slow acceptance response of ERP systems can also be caused by the fact that users rely on the relevant prior knowledge (what they know from old system) to try for understand the

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