THE ROAD OF ERP SUCCESS: A FRAMEWORK MODEL FOR SUCCESSFUL ERP IMPLEMENTATION

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ABSTRACT

To compete with nowadays business is to implement technology and align it into their business strategy. One of technology that commonly implement is Enterprise Resource Planning (ERP). This research will examined what are critical success factor of ERP and the impact of their business outcomes. A framework model for ERP Implementation success is constructs from several research or previous study in Implementation ERP. This study will extends in the research field of successful implementation ERP and implication factor for business practice to have more knowledge in term of implementation ERP and their business strategy.

Keywords: implementation, ERP, framework model

ABSTRAK

Untuk bersaing dengan saat ini adalah usaha untuk menerapkan teknologi dan menyelaraskannya ke dalam strategi bisnis mereka. Salah satu teknologi yang biasanya menerapkan adalah Enterprise Resource Planning (ERP). Penelitian ini akan memeriksa apakah faktor penting keberhasilan ERP dan dampak dari hasil bisnis mereka. Kerangka model untuk pelaksanaan ERP sukses adalah konstruksi dari beberapa penelitian atau studi sebelumnya dalam pelaksanaan ERP. Studi ini akan membentang di bidang penelitian sukses implementasi ERP dan implikasi faktor untuk praktek bisnis yang memiliki pengetahuan lebih dalam jangka implementasi ERP dan strategi bisnis mereka.

Kata kunci: implementasi, ERP, model framework

INTRODUCTION

In today's business, technology cannot be separated from business activity. Technology became an important part in a business strategy. Technology is expected to make a process of the business become more efficient and effective. But sometimes the implementation of technology turning into a nightmare of every company. One of these technologies is Enterprise Resource Planning (ERP).

ERP is a collection of software that has been integrated into one package for an organization's business processes to become more effective and efficient. ERP covers to manufacturing, supply chain, sales, financial, human resources, budgeting, and customer service activity. According to Turban, Leidner, McLean, & Wetherbe (2005), ERP or enterprise systems control all major business processes with single software architecture in real time. It is comprised of a set of applications that automate routine back-end operations such as financial management, inventory management, scheduling, order fulfillment, cost control, accounts payable and receivable, It includes front-end operations such as POS, Field Sales, Service. It also increases efficiency, improves quality, productivity, and profitability.

There's no shortage of headlines or analyst reports citing ERP implementation debacles and a chilling industry implementation failure rate. Analyst firm Gartner estimates that 55 percent to 75% of all projects fail to meet their objectives (ERP software implementation failure analysis and causes).

Previous Research in ERP Implementation

Implementation of ERP is a complex process, deals with many conditions and factors that will be influence every aspect of implementation. These conditions can have positive and also negative outcome to the implementation. The results of some recent study that related with ERP implementation success factors have been described following this review.

According to Bhatti (2005), implementing an Enterprise Resource Planning (ERP) system project is a difficult and high cost proposition as it places tremendous demands on organization's time and resources. Based on a survey of 53 organizations in Australia, the results suggest that a 65 item instrument that measures seven dimensions of ERP implementation is well-validated. Bhatti (2005) also suggested several factor that influenced for the success of ERP: project management, process redesign, user training, technological infrastructure, change management, risk management, top management support, communication, team work, user involvement, use of consultant, clear goals and objectives. And for the success outcome, there are two measure, project outcome and business outcome.

In other research, Nah, Lau, & Kuang (2001) investigated success factors for ERP implementation by conducting a literature review. According to their research, there are several factors that influence success factor of ERP implementation. These factors are teamwork, change management, top management support, plan and vision, business process management and development, project management, monitoring, effective communication, software development and testing, the role of the project champion and appropriate business and IT legacy systems.

Zabjek, Kovacic, & Stemberger (2009) also pointed several factor that critical for ERP Implementation. These factors are top management support, clear goals and objective, project team organization and competence, user training and education, business process engineering, change management, communication, user involvement and participation, legacy system management, consulting services, project management, sponsorship, system, technological, and minimal customization. These factors have a positive impact on successful ERP implementation and should be

treated as very important in ERP systems implementation projects. The results also support the importance of top management perception: if they consider business process management as a basis of business change, this contributes to a strong and positive influence on successful ERP implementation.

Recent study from Supramaniam & Kuppusamy (2010) highlighted several factor like Top management support, Project team competence, Interdepartmental cooperation, Clear goals and objectives, Project management, Interdepartmental communication, Management of expectations, Project champion, Vendor support, Careful package selection, Data analysis and conversion, Dedicated resources, Use of steering committee, User training on software, Education on new business processes, Business process reengineering, Minimal customization, Architecture choices, Change management, Partnership with vendor, Use of vendors' tools, Use of consultants.

The definition and measurement of success are thorny matters (Markus, Axline, Petrie, & Tanis, 2000). According to them, success is defined into three phases, success in the project phase, and success in the shakedown phase, success in the onward and upward phase. More in depth measurement of success, according to Markus, Axline, Petrie, & Tanis (2000), these success metrics include indicators of human and organizational learning. It is important not just how well the ERP system itself performs (e.g. accuracy, reliability and response time), but how well people in the organization know how to use, maintain and upgrade the ERP system and how well the business improves its performance with the ERP system.

A number of success metrics can be defined for each of these phases according to Markus, Axline, Petrie, & Tanis (2000), which are: (1) success in the project phase: project cost relative to budget, project completion time relative to schedule, completed and installed system functionality relative to original project scope; (2) success in the shakedown phase: short-term changes occurring after system 'golive' in key business performance indicators such as operating labour costs, length of time before key performance indicators achieve 'normal' or expected levels, short-term impacts on the organization's adopters, suppliers and customers such as average time on hold when placing a telephone order; (3) success in the onward and upward phase: achievement of business results expected for the ERP project, such as reduced IT operating costs and reduced inventory carrying costs, ongoing improvements in business results after the expected results have been achieved, ease in adopting new ERP releases, other new ITs, improved business practices, improved decision making, etc., after the ERP system has achieved stable operations.

Towards a Successful ERP Implementation Framework

Based on previous research study related with ERP implementation, there are several similarities in term of key factors or assumptions that researchers made. Following from that, as seen in Figure 1. Figure 1 is a proposed framework model for ERP Success Implementation. The proposed framework suggested four independent variables like people, organization, external and technology. And dependent variable is ERP Success that can be measure through process outcome and business outcome. Observed Variables for Dependent Variable can be seen in Table 1 and Observed Variables for Independent Variable can be seen in Table 2.
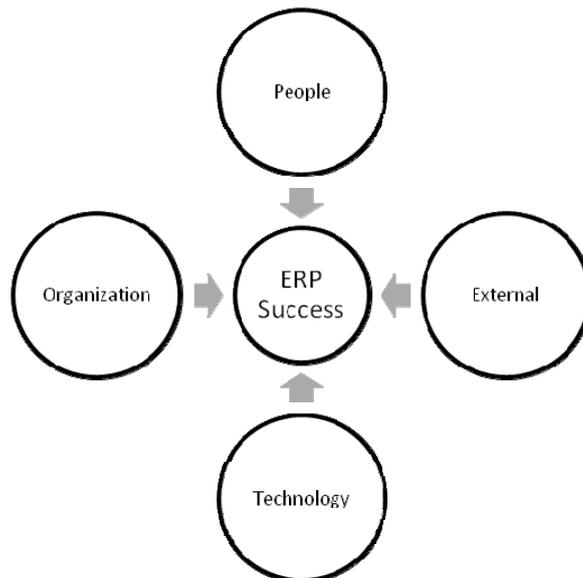
Figure 1 Proposed of framework model for ERP success implementation

Table 1 Observed variables for dependent variable

Dependent Variable	Observed Variables
ERP Success	❖ Project Success ❖ Business Success

Table 2 Observed variables for independent variable

Independent Variables	Observed Variables
People	❖ User training and education ❖ User involvement ❖ Coordination with Consultant ❖ Team work ❖ Open and honest communication inter-department
Organization	❖ CEO Leadership ❖ Top Management support ❖ Top Management awareness
External	❖ Vendor support ❖ Use of consultant ❖ Suitability of software and hardware
Technology	❖ Software customization ❖ Implementation experience ❖ Ease of use

CONCLUSION

The purpose of this study was to find some similarity through several recent studies that related with ERP Implementation. And somehow, there are similarity key factors or assumptions that researchers made. Following with that, the framework model is constructing. Researcher believes this framework can be used for tracking successful ERP Implementation. With this framework, company or top management will be easier to formulate their strategies and see what are factors that should be enhance or consider for ERP implementation while consultant or vendor building ERP products that satisfy their clients and therefore, they can make more profit. For further, this framework can be

implemented through survey in general or specific industry. This purpose to see what the different between general and specific industry. So in the future this framework can be extend to achieve more precise framework that suitable for each industry.

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