CAN SHARING KNOWLEDGE as an ORGANIZATION CULTURE ACCELERATE ENTERPRISE RESOURCE PLANNING IMPLEMENTATION? (Case Study East Java Manufacturer)

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ABSTRACT
ERP system is a technology to coordinate and integrate information system in a company and inter-companies on business processes area. It is used by word class manufactures to increase their performance. From many research results, there were found that ERP implementation can improve enterprise performance quickly but some of them say's the enterprise was fail. ERP system is a complex and expensive system, so in implementation is needed a tool which is capable to change company organization culture. To accelerate implementation of ERP, many research found organization culture for accelerate sharing knowledge have impact to accelerate implementation ERP with components i.e. key user affectivity team, commitment of top management, end user competency, vendor knowledge and consultant experience is needed. According to a survey which was conducted by means of interviews and questionnaires to 43 manufacturing industry practitioners in this research, it is found that in the preparation for an enterprise to implement ERP, knowledge sharing as an organization culture is a requirement from end user satisfaction and vendor & consultant experience are significant, even without the effective key users. Commitment top management directly impact to effective key user and end user satisfaction. An effective team of key users is able to give end user satisfaction.
Key words: ERP implementation, management commitment, knowledge sharing, key user, end user satisfaction.

1. INTRODUCTION

Businesses today face a stark reality: anticipate, respond, and react to the growing demands of the marketplace, or perish. In a fiercely competitive environment, business strategy not only determines success, it governs business survival. Now, more than ever, effective business strategy centers on aggressive, efficient use of information technology. An enterprise resource planning (ERP) system is a packaged business software system that enables a company to manage the efficient and effective use of resources (materials, human resources, finance, production system, planning, sales distribution, purchasing etc.) by providing a total, integrated solution for the organization's information-processing needs. It supports a process-oriented view of the business as well as business processes standardized across the Enterprise (Nah, et al., 2001). Enterprise resource planning (ERP) systems as "configurable information systems packages that integrate information and information-based processes within and across-functional areas in an organization" define by Zhang et al., (2008). McAdam and Galloway (2005) define ERP as: "an integrated, multi-dimensional system for all functions, based on a business model for planning, control, and global (resource) optimization of the entire supply chain, by using state-of-the-art IS/IT technology that supplies value added services to all internal and external parties". It means ERP is a suite of applications modules that can link back office operation to front office operations as well as internal and external supply chain. ERP software conjoins functional areas and business process in an integrated environment that provides a broad scope of applicability for organizations (Verville and Halingten, 2002).

ERP packages touch many aspects of a company's internal and external operations. Consequently, successful deployment and use of ERP systems are critical to organizational performance and survival. Potential benefits include drastic declines in inventory, breakthrough reductions in working capital, abundant information about customer wants and needs, along with the ability to view and manage the extended enterprise of suppliers, alliances and customers as an integrated whole (Chen, 2001). In the manufacturing sector, ERP

implementation has reduced inventories anywhere from 15 to 35 per cent (Gupta, 2000). Among the most important attributes of ERP (Shehab et al., 2004) are its abilities to: automate and integrate business processes across organizational functions and locations, enable implementation of all variations of best business practices with a view towards enhancing productivity, share common data and practices across the entire enterprise in order to reduce errors and produce and access information in a real-time environment to facilitate rapid and better decisions and cost reductions. Gargeya and Brady (2005) Identify benefit of ERP systems are tangible benefits and intangible benefits. Tangible benefits ERP systems are inventory reduction, personnel reduction, productivity improvements, order management improvements, financial cycle improvements, information technology cost reduction, procurement cost reduction, cash management improvement Revenue/profit increase, transportation/logistics cost reduction, maintenance reductions, on-time delivery improvements. There are intangible benefits ERP systems: information visibility, new/improved processes, customer responsiveness, cost reductions, integration, cost reduction, standardization, flexibility, globalization, supply/demand chain, business performance and dismantling inefficient legacy systems. Implementing ERP systems successfully calls for strong leadership, a clear implementation plan, and a constant watch on the budget. From a project managers point of view, the most important consideration is a clear implementation plan and a strategy to implement that plan. The plan and strategy, however, should evolve through systematic consideration of the company's requirements and its ability to manage changes that would be required under the new situation. Nah et al. (2001), based on a study of earlier papers (most of which were normative/prescriptive in nature), identified 11 factors that were critical to ERP implementation success. The 11 factors noted by them are: ERP teamwork and composition; change management program and culture; top management support; business plan and vision; business process re-engineering and minimum customization, effective communication; project management; software development,

testing, and trouble shooting; monitoring and evaluation of performance; project champion; and appropriate business and information technology legacy systems.

Umble and Umble (2003) expressed their views on 14 success factors (definition of business goals, establishment an executive management planning committee, thinking of implementation as research and development, use of cross-functional teams, stocking implementation teams with the best and smartest workers, alignment of everyone's interest by giving mid-level management hands-on responsibility, constant communication with teams and end users, excellent project management, choice of partners, extensive education and training, management with data, measurement of the right things, establishment of aggressive achievable schedules, and no fear for change) and nine failure factors (top management failure, poor project management, lack of education and training, people do not want new system to succeed, unrealistic expectations about implementation, inaccurate data, attempt to automate existing redundant or non-value-added processes, mismatch between the business and ERP system selected, and technical difficulties can lead to implementation) in ERP implementation. It appears that the work of Umbel and Umbel (2003), though normative/prescriptive for failure and success of ERP implementations, is not based on a systematic analysis of ERP implementations in different organizations. Enterprise resource planning (ERP) is a tool that helps companies cut costs and improve efficiency by integrating business processes and sharing common resources across an organization. ERP systems institutionalize the sharing of resources by requiring the consolidation of diverse and decentralized computing platforms, data models, and functional processes in order to improve operational efficiency. Successful ERP implementation requires organizational groups to break down barriers to knowledge sharing. ERP systems integrate business processes across functions and units, there by creating a divergence in the required knowledge of organizational members. Organizational members must understand more than just the piece of the whole that they have traditionally been required to know

and must understand where and how their function fits in the entire process. This research explores how differing dimensions of culture influence knowledge sharing on ERP implementation project teams (key user, top management, vendor/consultant and end user). The study contributes to the body of information systems knowledge in several ways.

Key user must to know Top management objective with ERP system. Vendor and Consultant understanding the business process in organization when a key user or end user explains their department business process. Organizational culture influences member's attitudes towards knowledge sharing and because knowledge sharing is critical to successful ERP implementation, it is important to understand the relationship between organizational culture and knowledge sharing and develop theory that contributes to successful ERP implementation. This research explores how dimensions of culture influence knowledge sharing as a tool to accelerate ERP implementation. They are key user teams, vendor and consultant, top management and end user in organization to implementation ERP.

2. THEORETICAL BACKGROUND

ERP implementation process, there are two main types of user: key-user and end-user. Key users are selected from operating departments and generally familiar with business processes and having domain knowledge of their areas. They will be the developers of the requirements for the ultimate system. In addition, key users will specialize in parts of the ERP system and act as trainers, help-desk resources, educators, advisors, and change agents for end users. In contrast to key users, end users are the ultimate users of the ERP system. They have only very specific knowledge of the parts of the system they need for their work.

ERP implementation teams should be composed of top management who are chosen for their people or worker has skills past accomplishments, reputation, and flexibility. These people should be entrusted with critical decision making responsibility. Management should constantly communicate with the team, but should also enable empowered, rapid decision making. The implementation team is important because it is responsible for creating the initial, detailed project plan or overall schedule for the entire project, assigning responsibilities for various activities and determining due dates. The team also makes sure that all necessary resources will be available as needed (Tarigan et al., 2009; Umble and Umble, 2003).

Cross-functional ERP teams are a critical component of successful ERP implementation. Teams should be adequately composed team members should be experienced in variety of techniques. Teams should be made up of people from both inside and outside the organization is likely vendor/consultant. The determinants of an effective ERP team are this research indicator for key user follows: competency of team members, their credibility within the organization and their creativity, motivation and effective team leadership (Mashari and Zairi, 1999).

The overall life cycle of adoption and use of ERP systems within the ultimate user organization may be the responsibility of a special group whom are usually termed key-users; they are selected from operating departments and must be intimately familiar with business processes and have domain knowledge of their areas. They will be the developers of the requirements for the ultimate system. Key users, as a group, must help to select the appropriate vendor and act with them and any implementation contractor in completing the requirements definition and implementation phases. Phase implementation where the contractors work under the direction by the key-user project team in ERP. Consultant and key user discussing the current company processes in an effort to promote better businesses practices and better implementation result. The consultant will leave once the project is complete, but the knowledge of the project must stay within key user and end user in the organization. Indicator in variable vendor and consultant the research use i.e. domain knowledge, related experience and training (Wu & Wang, 2007).

ERP systems are transaction systems meant to provide companies with a seamless integration of data for

organizations and it appears that, this benefit is likely to be understood by company employees regardless of their position within the organization. What is less understood, at least in the minds of the end-users, is the world-class nature of the technology that was selected. A knowledge gap thus exists between key-user and end-users. A possible explanation for this gap might be the allegiance that end-users have toward the legacy systems that ERP systems are meant to replace. Because they have been using these systems for quite a while, they are perhaps intimately familiar with the technology and it would take a great deal more convincing them that any replacement technology would necessarily be superior. User satisfaction is the sum of one's feelings and attitudes toward a variety factors related to the delivery of information products and services. User satisfaction indicators are: easy to use, training and development, system understanding and satisfaction with technology (Amoako and Gyampah, 2004; Wu and Wang, 2007).

Successful implementations require strong leadership, commitment, and participation by top management. Since executive level input is critical when analyzing and rethinking existing business processes, the implementation project should have an executive management planning committee that is committed to enterprise integration, understands ERP, fully supports the costs, demands payback, and champions the project. Moreover, the project should be spearheaded by a highly-respected, executive-level project champion (Umble and Umble 2003). Lack of commitment to change management has recently been recognized as the most severe source of difficulty in ERP implementation, especially in the ERP implementation that involves fundamental organizational changes. In addition, lack of shared ERP vision, shared understanding between senior business officers and senior information system officers about an IT innovation and its contributions to organizational competitive advantage, also contributes to the most severe problems in innovation implementation. Top management is determined to provide enough financial and technological resources to ensure smooth completion of implementation. Top management commitment to resources influences organizational climate for innovation implementation in that it is a kind of higher-level management support that promotes ERP innovation implementation activities among targeted users. Top management commitment to resources, by showing top management's determination to fully support innovation implementation, encourages targeted users' acceptance of new systems within an organization. Lack of commitment to resources could lead to indifference or deliberate organizational resistance to system implementation (Dong, 2001). This research has a indicator for variable top management commitment are: clearly to explain objective ERP implementation, fully support the cost, to build a good communication with key user, and strong leadership.

3. HYPOTHESIS

A model conceptual framework for measure the affect implementation ERP by sharing knowledge have a hypothesis with variable top management commitment, key user effective, end user satisfaction and consultant/vendor experience and knowledge.

Hypothesis 1 : Top management commitment is positive related to key user effective for implementation ERP.

Hypothesis 2 : Top management commitment is positive related to end user satisfaction for implementation ERP.

Hypothesis 3 : Key user effective is positive related to end user satisfaction for implementation ERP.

Hypothesis 4 : Vendor / consultant experience and knowledge is positive related to sharing knowledge for implementation ERP.

Hypothesis 5 : Key user effective is positive related to sharing knowledge for implementation ERP.

Hypothesis 6 : End user satisfaction is positive related to sharing knowledge for implementation ERP.

4. RESEARCH METHOD

This paper reports the results of a quantitative study of the impact of key user, commitment top management, vendor/consultant and end user to impact enterprise system (ES) implementation and use. Data were collected using a questionnaire survey in manufacturing East Java on Surabaya, Sidoarjo, Pasuruan, Mojokerto and Gresik area (Tarigan et al., 2009). This provided collect data for sample data research with cluster sampling and convenience sampling of 47 manufacturing firms. The research was identified at each company and has relation; this person was asked implementation ERP with top management or ERP key-users. We give out 47 questionnaires for 47 manufacturing in east java and 44 completed questionnaires were returned. One response were considered incomplete and had to be discarded. This left questionnaires 43 valid responses, a response rate of 91 % of the original sample. For the test first after sixth hypothesis and result a fit model with PLS (Partial Least Square) analysis by using software smart PLS. To measure indicator reflective with Outer model and composite reliability for block indicator. Evaluation inner model indicated by value of R^2 (R-square variable exogenous) for construct variable latent by use Q square test.

5. RESULT AND DISCUSSION

Result for inner weights is provided in Table 1, and result output PLS sharing knowledge ERP implementation model in Figure 1. Independent variable top management commitment had main effect to key user and end user because the value statistics are more 1.95 (significant at the value 5%). Hypothesis top management effect to key user and end user are positive significant related, where the top management commitment were full supported in this research.

Table 1. Inner Weight

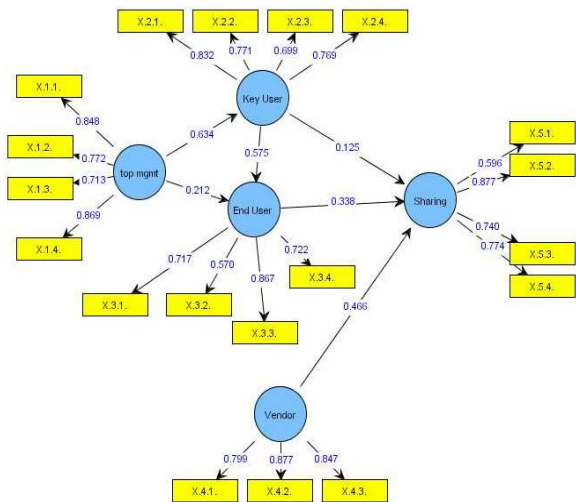|	sample estimate	mean of sub samples	Standard deviation	T-Statistic
top mgmt -> Key User	0.634	0.657	0.064	9.935
top mgmt -> End User	0.212	0.203	0.095	2.229
Key User -> End User	0.575	0.609	0.076	7.571
Key User -> Sharing	0.125	0.11	0.134	0.936
End User -> Sharing	0.338	0.361	0.139	2.433
Vendor -> Sharing	0.466	0.436	0.107	4.363

Figure 1.Sharing Knowledge ERP Implementation model

Hypothesis key user affective have positive significant to design ERP and bring the end user satisfaction on implemented enterprise resources planning. It is found that in the preparation for an enterprise to implement ERP end user satisfaction (t-statistics 2.433) and consultant/vendor experience and knowledge (t-statistics 4.363) as an organization are requirement to form knowledge sharing, even without the key user affective (t-statistics 0.936).

6. CONCLUSION

This article represents significant progress toward development of a measure of sharing knowledge in ERP environments. Top management building sharing knowledge an organization between key user affective, end user satisfaction, vendor/consultant experience and knowledge to collaborate and communication the ERP implementation successfully, building upon several previously validated instruments, reliability instruments using PLS with software java web. These research results are: top management commitment is positive related to key user effective and end user satisfaction for implementation ERP. Key user effective is positive related to end user satisfaction for implementation ERP and will not directly impact to sharing knowledge. End user satisfaction and Vendor/consultant experience and knowledge are positive related to sharing knowledge for implementation ERP successfully in case study manufacture east java.

7. REFERENCES

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