Issues and Challenges of ERP Implementation in Malaysian SMES

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Abstract

Enterprise Resource Planning (ERP) has been embarked in companies to integrate available data and create better solutions. Although, miscellaneous outputs worked out while system has been performing, expected benefits did not expose by high investment especially in small and medium-sized enterprises (SMEs). This empirical study analyses the significant failure factors of ERP implementation within organizational and managerial plus technological issues' classification through data collection which is based on a combination of questionnaire and interview method from 62 respondents in 37 SMEs who have failed ERP experience in Malaysia, however the questionnaire has been sent to more than 300 SMEs through Malaysia. The research identifies issues and challenges of ERP implementation regarding considered critical failure factors while the paper extracting those factors with a higher degree of importance for implementation in SMEs amid classification to derive success running from failure factors in further implementation.

Keywords Enterprise resource planning (ERP) implementation, small and medium-sized enterprises (SMEs), Malaysia, failure factors, issues and challenges

Paper type: Conceptual Paper

1. Introduction

Some firms have implemented ERP as a strong strategy to increase their competitive advantage. Although a wide range of literatures has mentioned about failure factors of ERP implementation through enterprises (Capaldo& Rippa, 2009), Enterprise Resource Planning (ERP) system could facilitate a harmony of data supply for internal and external business processes in companies (Beheshti, 2006). Hence, Enterprises have a tendency to find the challenges of organizational implementation rather than technical ones (El Amrani et al., 2006; Capaldo& Rippa, 2009). Covering the failure factors are vital to prevent the worsening of the system. Some studies (Capaldo& Rippa, 2009) have justified that the failing of ERP system implementation is not entirely related to technical difficulties, but also managerial and organizational issues, which might create problems concerning the implementation. Based on a wide range of studies on the challenges of ERP implementation, it has been revealed that there is a lack of researches to categorize and measure issues which are identified altogether. Here, all issues and challenges are grouped and just measured by degree of importance.

In order to adjust systems, small and mid-sized enterprises (SMEs) are willing to install ERP software to possess tremendous coordination in business processes (Francoise et al., 2009). In the wake of economic growth in Malaysia, Malaysian SMEs is growing in numbers (Bank Negara Malaysia, 2009). Although plenty of SMEs are interested in ERP installation, some failed in this system. This study investigates the percentage of importance degree in issues and challenges of ERP implementation in SMEs in Malaysia. The next section reviews literatures referring to ERP system implementation, and also categories of critical factors in this system. Furthermore, the ranking of failure factors and also the degree of importance are considered as a result within this study. In addition, the paper discloses the discussions, limitations of study and future research ideas.

2. Literature Review

In recent years in Malaysia, the progress of economy, to a great extent, is fast among the countries in South East Asia. Malaysia expanded their investment predominately on the techniques used during the 1997 economic crisis, the “corporate-wide integration, corporate

restructuring, and technological innovation policies" that was encouraged by the Malaysian government throughout the public and private sectors (Ministry Of Finance, 2009). Organizational and technological innovations of multinational companies play the two main roles in Malaysian import and export success along with economic growth. They could make plenty of growth shares in Malaysia.

Information and communication technology (ICT) growth is achieving a higher order. SMEs are upgrading and adopting IT system, in order to economic growth and improving IT infrastructure. In Asia-Pacific region, ERP software vendors are experiencing global expansion by concentrating and targeting on SMEs in developing countries (Huang& Palvia, 2001). Competitive environment and globalization caused the implementation of ERP by SMEs and adoption of a wide range of information technology to rival under new conditions (Maldonado, 2009). Although ERP systems are implemented in large enterprise, SMEs are motivated to run ERP on enterprise level (Adam & O' Doherty, 2000). Indeed, ERP implementation in SMEs is not so different from large enterprise. SMEs tries to implement ERP to raise the performance of departments throughout the enterprise by providing real-time information, having best practices during business processes, and updating obsolete technical platforms (Adam & O' Doherty, 2000; Thong, 1999).

The classification of Malaysian SMEs was categorized into three levels, which are (1) Microenterprise, (2) Small enterprise, and (3) Medium enterprise. In Malaysia, two key factors are used to define SMEs, which are (1) Annual Sale Turnover and (2) Number of Full-Time Employees (The IMD, 2009). A study which was done by Bank Negara Malaysia has reported that the present number of SMEs in Malaysia is 349,617 (Bank Negara Malaysia, 2009).

The future growth trends of the software market of Malaysian mid-market ERP was investigated by Frost & Sullivan (2004). The number of SMEs which are looking to adopt IT system is more than 10,000 in Malaysia. The SMEs has been attempting to compete in customer service globally .The ERP vendors offer ERP systems at lower cost and customizable to mid-market (Frost & Sullivan, 2004). In Malaysia, the government has a master plan from the year 2006 to 2020 to develop technology infrastructure for industries (MITI, 2007).

To facilitate IT adoption through Malaysian SMEs as explained above, various obstacles

present problems to implement the ERP system in SMEs. Time and cost are two significant investments required for the implementation of this system (Palanisamy, 2008). Inflexibility, long periods of implementation, and promoting overly hierarchical structures is foremost criticisms in ERP systems implementation according to Davenport's (2000) view point.

Failing ERP implementation happened in some large organizations such as Volkswagen AG, Hershey Foods, Nike, and Hewlett-Packard during 2000 to 2004. Lindquist (2008) has explained that the cost of Hewlett-Packard's ERP implementation project was $160 million in order backlogs and also lost revenue. It is rational to consider that since large companies like Hewlett-Packard had cost overruns and required more time consumed planning, so SMEs need to carry more difficulties in terms of time and budget. In fact, the ERP implementation is not the right solution for some enterprises desiring to run this system. The results in many cases showed misfortune in the implementation for them (Wood & Caldas, 2001). Understanding the issues and challenges in this journey can help reduce the failed implementation cases (Palanisamy, 2008).

Yongyi and Ying (2005) named ERP failures in two kinds. First is namely total failure, and the second is partial failure. Total failure is related to a project that has either never been initiated or launched in actual fact, or it has been commenced but was immediately discarded, and, consequently not accomplished. The next one, which is partial failure, is that at first the project implementation is successfully launched and after a while, due to various reasons fails. In order to the sort of failure that resulted in regards of not being a sustainable information system, various SMEs' system failure is also considered as partial.

In developing countries like Malaysia, the numerous concerns have been faced within an ERP implementation containing the human shortage along with lack of financial resource support in the first step (Wright & Wright, 2002). Bullen (1995) had declared that a wide range of studies is available about the failure factors for ERP implementation through the success factors since 1979, where the factor is not causing of success; this is failure ground in specific circumstances.

In this development, SMEs are encouraged to expand their business and IT adoption, but some of them face failures. In Malaysia, Noudoostbeni et al. (2009) had highlighted many failure

factors which caused to break down small and medium sized companies as well. Those factors are categorized as the failure factors in this study as well. Some Factors are depicted as the main reasons for ERP failures, which are poor technology planning, user involvement and training, overruns of budget and schedule, and adequate skills availability (Sumner, 1999; Umble & Umble, 2002; Wright & Wright, 2002).

To understand the issues and challenges of ERP implementation, in this research, the failure factors have been categorized. Failure factors are categorized and modified into 21 categories, where each category has included various related failure factors. The categories are classified as shown in the Table 1.

There are various failure factors in each of category which will be measured in this investigation. A wide range of authors such as Noudoostbeni et al in 2009, Francoise et al in 2009, and Ligus in 2004 discussed about the difficulties and failure factors of ERP implementation.

In the wake of the problems and failure factors, companies preferred to outsource their data handling and in getting high quality business processes. Challenges for organizations are cause for outsourcing as well (Bingi et al., 1999).

With success factors, companies can avoid failed implementation. Understanding failure factors in companies need to discover success factors besides (Jing & Qiu, 2007). This study derived some failure factors from the success factors. In this study, the failure factors are grouped into two classifications that are organizational and managerial issues, and technological issues.

Table 1: Category of Failure Factors in ERP Implementation

	Category	Author
1	Top management involvement and commitment	(Al-Mashari & Al-Mudimigh, 2003; Soja,2006; Velcu,2007; Finney & Corbett, 2007; Francoise et al.,2009)
2	Project management and evaluation	(Shou&Ying,2005; Gargeya & Brady, 2005; Soja,2006; Woo ,2006; Francoise et al.,2009 ;Noudoostbeni et al., 2009)
3	Project champion	(Gargeya & Brady,2005; Francoise et al.,2009)
4	Risk management	(Zafiropoulos et al.,2005)
5	Change management program	(Nah et al.,2001; Kim et al.,2005; Woo ,2006; Finney&Corbett,2007; Francoise et al.,2009)
6	Business process reengineering and minimum customization	(Somers and Nelson, 2001; Al-Mashari & Al-Mudimigh.,2003;Finney&Corbett,2007; Velcu,2007)
7	Business plan and long-run vision	(Shou&Ying,2005; Finney&Corbett,2007; Francoise et al.,2009)
8	Corporate culture	(Shou&Ying,2005; Noudoostbeni et al., 2009; Francoise et al.,2009)
9	Selection of ERP software	(Ligus, 2004; Mutt, 2010)
10	ERP team composition, competence and compensation	(Soja,2006;Noudoostbeni et al., 2009)
11	Business and IT legacy systems	(Shehab et al.,2004;Dezdar &Sulaiman,2009)
12	Software analysis, testing and troubleshooting	(Francoise et al., 2009)
13	Enterprise information management	(Shou&Ying,2005; Noudoostbeni et al., 2009)
14	Enterprise-wide communication and cooperation	(Somers & Nelson; 2001; Woo ,2006; Noudoostbeni et al., 2009)
15	Knowledge management	(Supramaniam&Kuppusamy,2009; Francoise et al.,2009)
16	Monitoring and evaluation of performance	(Shehab et al.,2004; Soja,2006; Francoise et al., 2009)
17	System quality	(Dezdar &Sulaiman,2009)
18	User training and education	(Beheshti, 2006; Ligus, 2004)
19	User involvement	(Zhang et al., 2009)
20	Use of consultant	(Supramaniam & Kuppusamy , 2009)
21	Vendor support	(Zhang et al., 2009)

Table 2: Classification of Issues and Challenges of ERP Implementation

Organizational and Managerial Issues' Classification	Technological Issues' Classification
• Top management involvement and commitment • Project management and evaluation • Project champion • Risk management • Business plan and long-run vision • Corporate culture • Selection of ERP software • ERP team composition, competence and compensation • Enterprise information management • Enterprise-wide communication and cooperation • Monitoring and evaluation of performance • User training and education • User involvement • Use of consultant • Vendor support	• Change management program • Business process reengineering and minimum customization • Selection of ERP software • Business and IT legacy systems • Software analysis, testing and troubleshooting • Knowledge management • System quality

The results of this study would clarify the higher degree of importance categories and failure factors.

In some failure cases, the ERP system failed the requirement to prepare the management's expectation for companies. The viewpoint is dissimilar for failure factors from one enterprise to another one.

3. Research Methodology

For investigation of issues and challenges of ERP implementation, it's essential to find out which enterprises have already run this system, either even failed ones. The procedure is respectively shaped from data collection, and then the sample of study, instrument development completed this research process.

3.1 Sample of Study

The rapid growth of SMEs in Malaysia resulted in our intention to target SMEs for this study. This study was restricted to all small and medium-sized companies in Malaysia which either implemented some forms of ERP or total ERP system implementation.

The sampling method of this study is non-probability due to the small targeted population, so no random sampling was done. According to population, 46 companies seemed capable to respond to the questionnaire and provide interview sessions with their managers and ERP experts. The population consists of chief executive officers (CEOs), chief information officers (CIOs), ERP experts, and managers of SMEs in any industries.

3.2 Instrument Development

In this study, the questionnaire was used to collect data. First part of the questionnaire was derived from questionnaire of a Multimedia University's PhD student's thesis (Adam, 2009) in the field of ERP implementation, which included general questions. The second part is about ERP failure factors measured by using the five Likert scale, from strongly disagree to strongly agree (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree) plus excerpts from the investigation of ERP implemented in Indian SMEs which was modified for Malaysia SMEs.

The questionnaire was validated by reviewing with ERP specialists and academic setting. All experts in this study agreed on the appropriateness, clarity of the items and contents. The study has shown the transparency amid comprehensive ways to respond to the questionnaire, and all respondents agreed that the questionnaire of the study has the clarity and adequate content of the items. Besides, in assuring its applicability and clarity the linguist of the questionnaire was pretested on a small group of SMEs excessively. Consequently, the reliability of the questionnaire was measured using statistical tools. The Statistical Package for the Social Sciences Version 17.0 (SPSS) was utilized to measurer liability which has done 0.87 based on Cronbach's Alpha formula as well.

3.3 Data Collection

The procedure of data collection commenced with contacting small and medium–sized

enterprises to ask whether they have had an ERP implemented in their companies in January 2011. The companies are chosen from the SMEs list and checked on the websites in advance.

The researcher has also sent emails to several companies in many types of industries to make a list of those small and medium companies that have implemented either ERP or even some forms of ERP system.

After confirming the list of suitable SMEs for data collection, the researcher contacted the companies to conduct a structured interview or request to send the survey questionnaire via email to the managers or ERP experts who are working or collaborating with the enterprises. In addition, there are some small and medium-sized companies in Malaysia planning to run ERP. A questionnaire was sometimes sent to many people within a company, because in a few companies more than one person is responsible for ERP implementation. However, the questionnaire sent to 46 companies ended up with 62 respondents from 37 companies.

4. Data Analysis and Results

This study uses a qualitative to quantitative method for data analysis, and is also based on a cross-sectional survey. The collected data will undergo a procedure to analyze data. Important statistical methods are used to analyze the data in this research.

For measuring failure factors, statistical tools are required. The Statistical Package for the Social Sciences Version 17.0 (SPSS) was utilized to analyze those data. The test used for analyzing these questions is the student's t-test. The success factors were tested with T-test that produces their mean values. Next, comparing the mean values and then choosing the higher degree factors as important factors of ERP implementation in Malaysian SMEs is done. In addition, the categories of failure factors are considered to be analyzed.

In the remaining part of this section, we are going to illustrate the general information and brief demographics in this study and some tables to clarify the failure factors in reference to literature review.

Following the research result, the majority of respondents' work experience is more than 20 years as shown in detail in table 3. The analysis of data shows that 51.6% of respondents have

working experience of more than 20 years, 33.9% between 10 to 20 years, and 14.5% less than 10 years.

Table 3: Working Experience

Working Experience	Number of respondents	Percentage
Working Experience is more than 20 years	32	51.6
Working Experience is between 10 to 20 years	21	33.9
Working Experience is less than 10 years	9	14.5
Total	62	100

Furthermore, 43 % of respondents have IT background while the rest of them are from non-IT background. The company size considered in this survey included 74.2 % medium sized and also 25.8% small sized enterprises.

The industrial classified company is ranked the highest, which attended to this survey and used ERP system in Malaysia more than other industries comprised of Retail Stories, Banks, Manufacturing, Engineering and Construction, Hotel, Tourism and Hospitalities, Computer Service and Software, Telecommunication, Utilities. In this study, the stage of ERP system's implementation in companies that shared this information is as shown below in table 4.

Table 4: Year of ERP Implementation

Year of ERP Implementation	Number	Percentages
Implementation is in progress	7	11.3
Implementation was completed less than a year ago	10	16.3
Implementation was completed between 1 to 3 years ago	8	12.9
Implementation was completed between 3 to 5 years ago	14	22.5
Implementation was completed more than 5 years ago	12	19.3
Implemented but scrapped	11	17.7
Total	62	100

In addition, components such as financial management and accounting, production planning, sales and distribution or logistics, asset management, customer relationship management, material and inventory management, quality management, human resource and

payroll are installed more in SMEs. Furthermore, the largest ERP application users included the manufacturing, utilities, technology, high tech, and also government linked SMEs in Malaysia. According to the relationship between ERP and strategy for ERP implementation, the SMEs in Malaysia answered the survey questionnaire as shown below in table 5.

Table5: Relationship between ERP and Company Strategies

Relationship between ERP and Company Strategy	**Number**	**Percentage**
ERP led to strategy	9	14.5
Strategy led to ERP	21	34
ERP and strategy influenced each other	26	42
The two processes are largely unconnected	6	9.5
Total	62	100

SMEs are encouraged to adopt this system in order to strategize the investment's view point in the wake of increasing return on investment. Financial, operational, technological and also strategic motivations are significant in ERP system implementation in Malaysian SMEs. In other words, to fulfill the requirements for improving financial, operational, technological, and also strategic system, companies are encouraged to put into practice the ERP system as well.
To find the critical failure factors ERP system in enterprises, the survey selected a wide range of failure factors that are generated from various resources. The factors are categorized into 21 different categories as mentioned in Table 1.

In categories of failure factors, various factors are engaged and some of them are not as shiny as the others. In this survey, the considered categories comprised of diverse factors, and the numbers are also not the same in any of them. Hence, the ranking of the category's mean degree would probably create discussions. Exceptionally, the studies attempt to normalize the questionnaire to produce real results. In ranking the categories, the mean degree of importance is merely done to locate its priority.

As shown in Table 6, each category used an acronym as indicated in the following texts. Furthermore, in this table, the ranks of the 21 categories by their mean values are shown. In order to categorize failure factors, readers might understand the organized modification with priority

degree.

Table 6. Failure Factors by Degree of Importance in ERP Implementation

Rank	Organizational and Managerial issues	Technological issues	Categories of Failure Factors	Symbol	Mean
1	•		Risk Management	RM	3.46
2	•		Use of Consultant	UC	3.39
3	•		Vendor Support	VS	3.31
4	•		Project Management and Evaluation	PME	3.24
5	•		Enterprise-wide communication and cooperation	ECC	3.18
6	•		Top Management Involvement and Commitment	TMIC	3.12
7		•	System Quality	SQ	3.07
8		•	Knowledge Management	KM	2.98
9			Corporate Culture	CC	2.96
10	•		Enterprise Information management	EIM	2.91
11	•		Monitoring and Evaluation of Performance	MEP	2.86
12		•	Selection of ERP Software	SERPS	2.84
13		•	Change Management Program	CMP	2.78
14	•		Project Champion	PC	2.73
15		•	Software Analysis, Testing, Troubleshooting	SATT	2.69
16	•		ERP Team Composition, Competence, Compensation	ERPTCC C	2.61
17	•		User Training and Education	UTE	2.58
18		•	Business Process Reengineering and Minimum Customization	BPRMC	2.54
19	•		User Involvement	UI	2.49
20		•	Business and IT Legacy systems	BITLS	2.46
21	•		Business Plan and Long-run Vision	BPLV	2.33

It is noticed that Risk Management, Use of Consultant, Vendor Support, Project

Management and Evaluation, Enterprise-wide communication and cooperation have the highest three rankings in comparison with the other failure factor categories within SMEs in Malaysia. In all categories, it was found whole possible reasons which are important to SMEs and are modified for developing countries.

Table 7. Ranking of Failure Factor Categories in ERP Implementation in Malaysian SMEs

Rank	Organizational and Managerial issues	Technological issues	Category	TOP Failure Factor	Mean
1	•		PME	Unrealistic expectations of the benefits and the ROI (return of investment)	4.19
2	•		VS	Minimal support from the vendors after implementation	4.13
3	•		RM	Poor risk management	4.08
4		•	SQ	Data transfer errors	4.02
5	•		PME	Poor project management	3.97
6	•		TMIC	Lack of top management participation	3.91
7	•		UC	Poor consultant selection and relationship	3.84
8	•		ECC	Lack of communication between team members and consultants	3.77
9	•		EIM	Poor documentation of the system, especially for design and controls	3.69
10		•	KM	Lack of ERP knowledge	3.66
11		•	SERPS	Poor package selection	3.58
12		•	CMP	User resistance to the new system	3.51
13	•		CC	Inflexible organizational structure, process and personnel	3.43
14	•		UTE	Lack of education on new business process	3.4
15	•		ERPTCCC	Lack of team composition in various departments	3.37
16	•		EIM	Improper reporting structure	3.33
17		•	SATT	Lack of functionalities in the software for creating reports at the time	3.29
18	•		ERPTCCC	Unbalanced team	3.22
19		•	BPRMC	Too many customization	3.19

The first 19 effective variables in the failure of ERP implementation in SMEs in Malaysia

are in Table 7 in order of importance. In this table, all the factors which have a high degree of importance in ERP implementation in Malaysian SMEs are mentioned.

The survey showed Unrealistic expectations of the benefits and the ROI (return of investment) in Project Management and Evaluation , Minimal support from the vendors after implementing in Vendor Support , Poor risk management in Risk Management, Data transfer errors in System Quality, Poor project management in Project Management and Evaluation , Lack of top management participation in Top Management Involvement and Commitment, Poor consultant selection and relationship in Use of Consultant category in their respective order.

The results are compared with other developing countries in Asia such as India, South Korea, and Singapore. According to the results, the failure factors are close however the priority is different. In many cases, the developing countries especially in Asia have seen some factors related to consultant and vendor support, project management, involvement of top management, risk management, and also system quality as crucial in order to handle an ERP system in enterprises, particularly in SMEs.

5. Discussion

The challenges of failing ERP implementation carried different factors and adaptations with regards to multinational companies or SMEs. Even though there are various points of view from users and managements during system implementation and adoption in different countries (Yen& Sheu, 2004), some factors are playing the bigger roles to maintain the system and prevent failure.

Accordingly, the results of this study on the failure factors are divided into three levels of priority degree in evaluating the mean value. The levels are in the order of highest (mean value from 3.9 to more), higher (mean value from 3.5 to 3.9), and high (mean value from 3 to 3.5) degree.

Factors such as unrealistic expectations of the benefits and the ROI (return of investment), minimal support from the vendors after implementing, poor risk management, data transfer errors, poor project management, and lack of top management participation are in the

highest ranking group of failure factors of ERP implementation in Malaysian SMEs.

The investment and expectation of budget through ERP project are not properly estimated due to underestimating the project management at its planning and control phase. Project management and Evaluation category appears as a crucial one both to prevent failing and maintain success.

The vendors of this system are either local system provider or operating worldwide. The small companies normally install a few modules while medium-sized enterprises intended to expand their business by organizing systems to serve internal and external benefits. When vendors do not provide support after implementation or skip some steps during implementation, the system might go downhill. The risk management can keep away systems that could put the budget of companies in overrun situation. Data transfer error factor came from not conforming to system due to the quality of the system installed among the enterprises. When the big bang strategy was selected for implementation, the quality of system needs to be monitored merely since the nature of ERP system is integrated.

In some cases, the lack of top management participation is the other weakness of project implementation. In fact, decision making and shaping the way of implementation is based on the viewpoint of top management. In the wake of this factor, changes during planning would be reduced, which is why participation and commitment of top management is so vital.

Into the bargain, the highest ranking group comprised of poor consultant selections and relationship, lack of communication between team members and consultants, poor documentation of the system, especially for design and controls, lack of ERP knowledge, poor package selection, and user resistance to the new system respectively.

Various firms of this investigation complained of poor consultant selection and of not having good relationships with them. Any company, during the running of the system, would have faced some difficulties in technical and organizational categories, hence the consultants need to assist to solve the problems and put the system on a better path to succeed, otherwise the system will not be handled properly and incur additional expenses. During the communication and also cooperation between teams of ERP implementation project that are related to

consultants in exchanging opinions on enterprise level, various statements have failed due to being selected in the wrong way.

The results suggest that poor documentation is able to create a complex system. The knowledge of ERP is fertilized during the setup in planning. In specific, the wrong selection of software for companies affects the outcome directly. Various medium-sized enterprises which are bankrupt have complained of this factor. The consultant should consider the requirements of the companies with a bird's eye view and select the software which is suited to the needs. The qualification of post implementation of this system is totally related to it. The user resistance to the new system in change management program category is derived from how to match the system and knowledge of this system with the users. The outcome is rooted in the strategy of implementation and selected software.

The investigation is going to picture that the high ranking level of failure factors in issues and challenges of ERP implementation with inflexible organizational structure which is causing of the culture of indefeasible within the organization. System users and also managers would be required to comprehend the integration of ERP system and operation in the enterprise. Although training provides higher degree capability, the lack of education in the new business process will certify failed implementation. Coordination between departments in an organization is harmonized between the teams of ERP system. Where lack of this knowledge happened, this composition does not possess successful results. The harmony between departments brings about how to report on information management of the company, and not to have the right reporting structure in system shapes malfunction. Along with creating a report, software operation in the company should work simultaneously. After coordination of the department and report, we can address the balance between them. Creating a balanced team in a company for system implementation can reduce complexity. This problem of unbalanced team apparently comes from not merging the group of staffs. Although this is common in multinational companies this is decreased in local enterprises, in order to their culture, language, and loyalty.

On a closer look at failure factors, reengineering process during business of some enterprises failed due to too many customizations. Actually, the staffs are not able to handle various customizations and a number of vendors or consultants tend to modify the systems

exceedingly that do not need to be performed.

In addition, the results of statistics on the mean degree value would narrow down our discussion to issues' classification, which included an organizational and managerial view together with technological ones. In order to the categories within the classifications, the organizational and managerial classification carries more failure factors. Hence, the study supposes that this classification is more critical for enterprises, in particular Malaysian SMEs.

Technological classification holds some failure factors such as data transfer errors, lack of ERP knowledge, user resistance to the new system, and lack of functionalities in the software for creating reports at the time. The rest of other failure factors are in organizational and managerial classification. Steep growth of IT industry in developing countries in Asia made companies to meet more demands on ERP system adoption. Hiring system has brought reluctant challenges in enterprises. Other developing Asian countries such as India, South Korea, and Singapore are found to have failure factors which are nearly the same as in Malaysia.

The failure factors are apparently close together even though the priority is different. In many cases throughout the developing countries, especially in Asia, some factors related to consultant and vendor support, project management, involvement of top management, risk management and also system quality are seen as crucial to handle the ERP system in enterprises, specifically in SMEs.

6. Limitations and Future Research

Despite ERP system is vastly implemented in various companies of any size, study of this system still faces various limitations.

The potential limitation of this study was related to data gathering. In fact, data gathered for this study was through a combination of interviews and questionnaire. The study depends on managers' and executives' point of view in responding to the questionnaire.

Consequently, it was tough to confirm an appointment for interviews or acceptance to respond to the questionnaire. On the other hand, this study was related to SMEs, and the majority of small enterprises either did not implement ERP in the wake of high cost, or were not even

informed of ERP exactly. Thus, finding small enterprises to gather data was another limitation of data gathering in this survey.

This investigation is done to find failure factors of ERP implementation, so finding small and medium sized enterprises to collaborate in this sort of studies was totally time consuming. Some companies which failed in this system refused to respond to the questionnaire or be interviewed.

Furthermore, the research study has vast potential when considering other dimensions that concentrates on diverse sectors of study related to the service sectors in SMEs. Overall, in specifying the sectors of study, we can deeply explore the pros and cons of ERP system implementation in enterprises and create a guideline for a smooth path to deliver the benefits for enterprises as well.

7. Conclusions

Enterprises are seriously concerned about the problems and difficulties of ERP system adoption and implementation. The paper argued in terms of both organizational and technical problems to find the most probable ones. Although the failure factors were measured in various studies conducted in developing countries as highlighted in literature review, in this investigation all the factors were categorized into 21 categories. The ranking of failure factors by specifying them in classified categories would have carried reasonable viewpoints for companies that are prepared to adopt ERP system.

The practical research output has shown that almost a majority of difficulties in handling this system is based on managerial and organizational issues classification rather than technical ones. The corrected cooperation, along with accurate leadership, might slide down the failure rates.

The results addressed the issue of how to assist the enterprises to put their decision into the proper path where SMEs can achieve the investment before and during the process of system implementation and to gain competitive advantages. Fitting the appropriate performance might bring the successful implementation with considering the enterprise size plus accurate resources.

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