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Factors Affecting ERP Implementations in the HIV Free Project Center Region Cameroon. Clerks and Consultants perspective

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Abstract

Enterprise Resource Planning (ERP) systems are becoming popular among business organizations globally as well as locally. The main reason is that the corporate benefits gained through such implementations. However, in the event of such a project failing, the company has to incur a huge loss. Therefore, identifying the issues involved with the ERP implementation is of paramount importance. This paper aims to identify factors affecting the successful implementation of ERP projects, find out the level of practice of each factor in HIV FREE project and recommend best practices to minimize the ERP project failures. The findings of this research are based on a questionnaire survey performed among 20 data clerks and 5 ERP consultants selected through judgmental sampling method. There are 3 factors each for clerks and consultant perspectives where the level of practice is poor, they are; product selection procedure, project planning, client commitment, competency of consultants and communication of support requirements during the pre-implementation stage. Except for above, level of practice of rest of the factors is good. Set of guidelines has been suggested to overcome the poorly practiced implementation factors in order to follow in future ERP implementations for both clerks and consultants.

Keywords: ERP implementation, Success factors, Clerks perspective, Consultant perspective.

Introduction

An Enterprise Resource Planning (ERP) system is an integrated software solution, typically offered by a vendor as a package that supports the seamless integration of all the information flowing through a company, such as financial, accounting, human resources, supply chain and customer information (Davenport, 1998). Gunasegaram (2007) defines the key.

elements of an ERP system as: one large real-time database which reduces data redundancy and improves accuracy; integrated business process that cut across business functions such as supply chain management; and seamless transitions between business transactions.

In response to the growing global competition, many companies all over the world have embarked upon ERP implementation. The ERP system market is one of the fastest growing markets in the software industry (Willis and Willis-Brown, 2002). Current major ERP vendors are SAP and Oracle; these two vendors occupy 42% and 25% of the market respectively (AMR Research, 2007). MS Dynamics has a market share of 7% while IFS has only 1% from the ERP market (AMR Research, 2007). Many researches have described that there is a noticeable difference between ERP projects and software projects (Bingi et al., 1999; Majed, 2003). Most software projects are focused on developing a standalone software system. But an ERP project is composed of software projects as well as business processes. Nowadays, ERP systems are becoming a trend in Cameroon as well in the HIV FREE Projects within the CBCHS tend to invest heavily on ERP systems seeking for the benefits promised to gain corporate excellence.

In general, ERP systems, if implemented properly, provide enormous benefits to organizations. However, not all ERP implementations deliver the promised enterprise improvements. There are many situations where ERP implementation has become a failure. There have been many difficult and costly implementations of ERP systems that have adversely affected many organizations. According to Gunasegaram (2007) the companies that have failed in ERP implementations include FoxMeyer Drug, Dell

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Computer, Applied Materials and Dow Chemical. According to the evaluation of Standish Group International, 90% of SAP R/3 projects run late (Scott and Vessey, 2002) and Williamson (1997) signified that 3/4 of ERP projects were considered as failures and unacceptable. In the case of FoxMeyer Drug, the project has led the company to a bankruptcy proceeding (Scott and Vessey, 2002). There may be lots of factors that might affect the success of ERP implementation. Even though many researches have been carried out in other countries, hardly any research in this nature has been done in HIV REE Project.

The objectives of this research are to identify significant factors that have an impact on ERP implementations, to find out the perception of the clerk and consultants on application of these factors and to recommend a set of guidelines to overcome the poorly practiced implementation factors in order to avoid failures in future ERP implementations.

Literature review

Factors affecting ERP implementations – as identified by different researchers

Researcher Factors affecting ERP implementations Somers and Nelson (2001) Top management support, Project team competence, Interdepartmental co-operation, Clear goals and objectives, Project management, Inter-departmental communication, Management of expectations, Project champion, Vendor support, Careful package selection, Data analysis and conversion, Dedicated resources, Steering committee, User training, Education on new business processes, Business Process Reengineering (BPR), Minimal customization, Architecture choices, Change management, Vendor partnership, Vendor tools, Use of consultants. Nah et al. (2001) ERP teamwork and composition, Top management support, Business plan and vision, Effective communication, Project management, Project champion, Appropriate business and legacy systems, change management program and culture, Business Process Reengineering (BPR) and minimum customization, Software development, testing and troubleshooting, Monitoring and evaluation of performance. Huang et al. (2004) Lack of senior manager commitment to project, Ineffective communications with users, Insufficient training of end-user, fail to get user support, Lack of effective project management methodology, attempting to build bridges to legacy applications, Conflicts between user departments, the composition of project team member, fail to redesign business process, Unclear/Misunderstanding changing requirements. Wong et al. (2005) ERP system misfit, High turnover rate of project team members, Over-reliance on heavy customization, Poor consultant effectiveness, Poor IT infrastructure, Poor knowledge transfer, Poor project management effectiveness, Poor quality of Business Process Reengineering (BPR), Poor quality of testing, Poor top management support, Too tight project schedule, Unclear concept of the nature and use of ERP system from the users' perspective, Unrealistic expectations from top management concerning the ERP System, Users' resistance to change. Upadhyay et al. (2011) Top management support, Project team competence, Project management, User training and education, External consultants, Proper package selection, Vendor's staff knowledge and support, Clear goals and objectives, User involvement and participation, Project champion, Project cost, Effective change management, Project composition and leadership, Organizational communication, Information flow management, Minimum customization.

Significant factors affecting the implementation of ERP systems

A number of researches have been carried out in different countries to identify critical success factors of an ERP implementation. The above theories summarize the factors identified by different researchers.

From the above, it is clear that different authors have identified different factors in different contexts. However, it is important to note that all the researchers have identified the top management commitment as one of the important factors.

ERP implementation stages

Researchers (Ehie and Madsen, 2005; Yu, 2005; Gunasekaran, 2007) have divided ERP implementation process into different stages depending on various packages and research contexts.

According to Yu (2005) there are three main stages in an ERP implementation; i.e. pre-implementation, implementation (also known as during implementation) and post-implementation. Further these stages can be divided in to sub stages for various purposes such as ease of planning, execution, etc.

Methods

Before the start of the ERP SYSTEM in the HIV FREE Project, work was being done manually in the project. Data collection on human resource, reporting of objectives and many other information was being generated manually by project staff and some contracted facility workers. Information regarding finance was also being reported through the use of manual vouchers by the finance clerks and the accountants. This was done so mainly to facilitate reporting and reconciliation with the head office in order to avoid delays with reconciliation and sow down activities in the implementation and meeting of project objectives.

The implementation of the ERP started in the HIV FREE Center region project in the whole of the CBCHS called Data Manager (DAMA). This system was developed due to the bulky work nature and the cumbersome data staff had to report on monthly and at times weekly basis both to top managers and the funding partners manually. Management then looked into the situation and came up the electronic reporting system which will facilitate data collection and reporting using limited time and less effort.

The Center region was fortunate enough to be the first to pilot the implementation of these wonderful idea and it started off well on a good footing with the hiring of consultants and technicians to facilitate its implementation.

Trainings and mentorship

Staff were contracted and trained on the implementation of ERP. At least 1 to 15 staff were trained and send to both high volume and low volume facilities to facilitate and train the other personnel of the site on the importance and need of ERP at the site. They underwent a two weeks intensive training on data collection, data entering and reporting, data cleaning, and data backup for better understanding of how the system works and for the clerks to get acquainted to the system and be user friendly with it. The training was led by experienced contracted consultants and well-trained IT technicians.

After the two weeks intensive training, the clerks were then giving their working tools which comprises of their laptops, flashes, hard dives etc. to commence implementation in their various working stations. At their various station, the were expected to key in information on clients as they come in the sites and stop all work that was previous done manually at that site.

There was continues follow up and supervision by the consultants to ensure that the ERP implementation at the various stations is going on well and the challenges been encountered are systematically handled and resolved.

Results

After the six months' pilot period of the ERP, the facilities noticed a great improvement with their reporting. They noticed that less time was now being spent on reporting generation since it was being generated automatically through this system, retrieving of client's information became faster and easier from the system, data discrepancies reduced compared to the previous ways of generating data manually which had lots of errors. Both the management and staff were very happy and satisfied with the giving results they were witnessing and finally, decision making using this system is now very easy and less strenuous to management.

Discussions

This section discusses clerks and consultant perspectives of ERP implementation factors. In addition, it presents the possible causes for the factors for poor level of practice and suggests guidelines to improve the same. The clerks think that the system needs to be updated frequently and made flexible for them to be able to make some adjustments where necessary. Meanwhile, the consultants think that they should be the only ones to pass by and make the major changes when necessary. The clerks where able to use the ERP system

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effectively in inputting the different information that was needed by the managers within the six months' pilot period in some low volume facilities and almost hit their targets in sites with high volume. It was noticed that very few big high-volume sites had some challenges with the effective implementations at their sites. The aim of this work was not to show the effectiveness of ERP but to come out with the factors affecting its implementation. The studies carried out by Somers and Nelson (2001) and Wong et al. (2005) have also revealed that product selection procedure was poor in their contexts as well. The issue is some clerks start to learn about ERP concept only when they start to seek ERP systems for their organizations. In this scenario it seems that consultants are right as they have involved in a number of ERP implementations and they have an overall idea. Therefore, product selection process will be a learning exercise for most of the clerks and they learn through mistakes as it's a new topic for them. This might be the reason for the poor rating given by the consultants. According to Upadhyay et al. (2011), proper package selection has been identified as one of the crucial factors after the study carried out among 98 Micro, Small and Medium-scale Enterprises in India. Therefore, companies should be more careful in selecting the most suitable ERP package for their business. Consequences of selecting an inappropriate package will be disastrous.

Conclusion

Among the nine factors identified through literature and domain expert's views, there are 2 factors each for clerks and consultant perspectives that they have identified as poor. They are project planning, client's commitment to visit health facilities (by consultants) competency of consultants (by clerks) and communication of support requirements during the pre-implementation stage (by both parties). Except for above, level of practice of rest of the factors is good according to both clerks and consultants. Therefore, this is a positive sign as far as HIV FREE ERP implementations are concerned.

Further research may focus on finding out level of practice of identified factors with respect to different industries as well as different ERP products. In addition to that a study can be carried out to compare product features and find out product specific issues in terms of functional and technical features. Moreover, it would be more useful for the stakeholders if one could rank factors according to the significance of each factor use of AHP analysis.

In this research, attention was paid only for micro factors (organizational factors). But the literature shows that macro factors (regional, government, economy and economic growth, etc) also have an impact on ERP implementations.

This research was done using questionnaires, in other words research has used deductive approach. It is possible to extend this research by conducting in-depth interviews for both clerks and consultants as an exploratory study.

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