

Factors effecting erp implementation in smes management essay



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Information systems gained popularity as these automate all management related function that an organisation needed. Large organisations implement ERP information systems that integrate all data and processes together. With increase in popularity of SMEs (Small and Medium Enterprises) and their collaboration with large enterprises, SMEs needed an ERP system which at first can automate all of their business functions and secondly they can work with large enterprises. However their successful implementation in SMEs remains an issue. As SMEs are short of resources and financially weak so they need to install an ERP system successfully so that they can avoid chances of failure. For this reason this research has been conducted to critically analyse success factors of ERP adoption. Case studies will be selected and analysis has been made on them to find out the successful elements of their implementation. At last in conclusion a general frame work will be made to help SMEs to implement ERP system successfully.

Background:

Today the whole world has become a global village in which organisations are competing with each other to improve their productivity and generate profits. This is not generalised to only large organisations as it has been observed from last decade that small and medium size organisations are also taking part in this race (Chen, 2001). Organisations are moving fast to adopt a package that can help their management and functional needs. They require an Enterprise package that can fulfil their demands. ERP is the solution for the enterprises, in current case for small and medium size organisations.

Enterprise Resource Planning (ERP) gained its popularity in 1990 as an integrated application. Its functionality is to integrate different functions together and provide a common database to users and departments, with many advantages more specific to reduced inventory and improved profits. ERP evolution starts in earlier 70s when manufacturing companies were using MPS (Master Production Schedule) technique. Function of this technique was to specify the end or finished product that is required in planning period. This type of technique only did the production and scheduling of final product. Whereas manufacturing organisations required not only final product planning but they also needed planning and scheduling of raw materials associated with that final product. Therefore firms obtained MRP (Material Requirement planning) that can differentiate between final product, its parts and raw material. This technique performed production planning and inventory control in the manufacturing process. Basic functionality of this system was planning and scheduling of manufacturing process.

This technique became popular and in 1980s MRP systems were expanded and MRP II was introduced, it was not only production planning technique but it also integrated primary functions like (production, finance and marketing etc) into planning process. Because of this technique popularity and effectiveness in planning and production process organisations tend to move to this technique. In 1990s MRP II was further expanded into ERP (Enterprise Resource Planning). The main difference between ERP and MRP II is that ERP plans and schedule supplier resources by keeping customer service in mind (Chen, 2001 and Gupta, 2000).

The purpose of the research is to identify success factors of ERP adoption in SMEs. Researches done in this area were deficient of some of the key points. From last couple of years research has been conducted to critically identify success factors of implementing ERP in SMEs. (Kale et al, 2010) did study in identifying success factors of Indian SMEs and their research was based on both qualitative and quantitative. (Snider et al, 2009) studied on five Canadian SMEs but some of their critical success factors lack cultural issues. (El Sawah et al, 2008) and (Woo, 2007) both did research in SMEs, in which they covered only one country and further they intended to enhance their research by taking more SMEs of different countries. (Woo, 2007) explained in study that if cultural differences were given then considered success factors can be same to case studies in China and case studies of Western organisation. (Doom et al, 2010) used Belgian SMEs to research success factors. (Muscatello et al. 2003) did their research on four US manufacturing companies but the companies they choose were linked to large organisations and had annual revenues more than SMEs. (Loh and Koh, 2004) carried out their research in UK and their target was SMEs, they conducted interviews and distributed questionnaires. Their research is found to be more competent as compared to others but still they did not cover demographic issues. (Yusuf et al, 2004) conducted their research on Rolls Royce and found out answers of few success factors.

From above studies it is obvious that most of the work has been done in large organisation and little researches were carried out on SMEs. Although, those studies considered SMEs for the research but covered only one region

and were short of justification that how success factors of some specific part of world could be implemented in rest of the world.

Key issues in successful implementation of ERP

Key issues are the problems that arise during the implementation process. There are lot of problems that can affect ERP implementation process in SMEs which are detailed as below (Chen, 2001).

Cost is one of the main issues that can fail ERP implementation. As ERP package requires huge finances and companies fail to successfully implement ERP package so they find it difficult to continue with their project.

To choose right ERP package is another issue that SMEs have to take into account before implementation. Hershey Food Corp accounts SAP for their failure so choosing right ERP package is a big issue.

ERP in SMEs requires some time complex customization because it focuses mostly on corporate giants. So customization is another big issue that can effect ERP implementation.

Another main issue is analysis, which projects are failure and which are successful. Project failure and success all depends on judgment and analysis. Fox Meyer as mentioned below, states that their ERP systems did not fulfil their functionality and they marked that project as failure. It is explained in detail in literature review section. Likewise some enterprises termed their project failure because of cost.

Project can be termed as success if they meet these criteria.

It should be delivered on time

It should meet project cost

The project should deliver the functionality which that organisation wants.

Research aim and objectives

The main aim of this study is to propose a frame work for effective implementation of ERP in SMEs. This requires in depth study of literature review and case studies to critically evaluate success factors. The research will be based on the following research question:

What are the key issues and problems being faced in the successful implementation of the ERP in small and medium enterprises (SMEs)?

To what extent the ERP software contributes to the success factors in SME's?

In order to answer the above stated research questions the following stages will have to be achieved:

To review and carry out in depth analysis of literature review while focal point will be ERP adoption.

Critically analyse and identify success factors from different case studies.

Match and analyse success factors of literature review with the case studies

Develop a frame work of success factors which can help in implementing ERP successfully for Small and medium size organisations regardless of their region and cultural issues.

SMEs case studies will be taken who have generally less level of employees.

Case studies will be taken from different regions so that more in depth analysis will be done and cultural and demographic issues will be covered in that. This point is explained in much more detail in method of analysis section.

Companies who have successfully implemented ERP application will be considered.

Literature review

According to (Snider et al, 2009) ERP uses common online database whose functionality is to share common database among users and enterprise functions. ERP is an integrated information system that is composed of information system and managerial thinking. One of its core purposes is to integrate all the dependent and independent information systems together and optimise systems performance.

ERP system comprises of a database which is online and shared, an application with an integrated interface which means different interfaces are incorporated into one interface. (AL Mashari et al, 2003).

ERP achieved its level of popularity in large manufacturing enterprises in 1990s. Large enterprises implemented it to automate their functions and to integrate all processes and data together. On the other hand as SMEs were getting popularity so after implementing ERP systems in large organisations ERP vendors now moved towards SMEs. There are many factors that can

encourage SMEs to accept ERP systems. Poston and Grabski (2001) believed there are certain factors that motivate SMEs to adopt ERP systems:

It can reduce cost as computer systems increases the efficiency process

It can make decision making process accurate.

(Oliver and Romm, 2000) suggested these reasons for ERP adoption in SMEs:

Data and processes integration

Avoid critical business risk

Improvement of ongoing business operations.

ERP adoption in SMEs is a challenging task especially when cultural issues arise. Cultural issues can occur at organisational values, means it can impact organisational structure and management or at individual value where it can impact how job works and how employees will conduct themselves if they belong to certain culture. (Straub et al., 2001). Developing countries face many problems when they use western technologies from developed countries. ERP encapsulates best business reusable practices in it. For this reason it became a demanding technology that it can use (Sawah et al, 2008) outlined cultural issue to be an important factor responsible for high demand of ERP in SMEs.

With these motivational factors that attract SMEs to adopt ERP there is terrible side of this adoption as well where many ERP enterprises fail to adopt ERP systems. Below mentioned are cases of large enterprises but

small and medium size enterprises can learn lesson from them by not to adopt that type of implementation. Fox Meyer Drug, a multi billion pharmaceutical company which files for bankruptcy and they blamed ERP system for their down fall. In its case, problems in ordering system leaded as system generated excessive orders more than demand which lead company to down fall. Renowned companies like Dell scrap their mega expensive project as they found system inflexible for their business. These are not only two examples of ERP failures but many other companies like Hershey, Boeing, Dow chemical etc faced same situation (Chen, 2001). In all these companies ERP systems leaded to failure and this was due to not having proper planning before installation. Above mentioned companies are all large organisations whereas in case of small and medium size organisations, these can not bear the cost of ERP systems failure. This leads this research to critically analyse and find out the success factors in ERP adoption so that SMEs can avoid these failures.

Difference Between SMES and Large enterprises:

Significant amount of differences can be noticed between large and SME organisations. SMEs have informal structure and culture, their top management are found to be involved in day to day activities (Mintzberg et al., 2003,) while large organisations have structured departments and processes and their top management is not involved in daily activities (Buonanno et al, 2005). At the same time SMEs have limited resources in terms of research & development, finance, human resource with limited clients and operates only in small scale (Kale et al, 2010). Due to these limited resources they find it difficult to implement projects that can be <https://assignbuster.com/factors-effecting-erp-implementation-in-smes-management-essay/>

reengineered (Mc Adam, 2002). Besides these limited resources they are generating profit very well and for this reason many multinational companies in recent years collaborated with SMEs which have ERP systems installed in them. This collaboration made SMEs to adopt ERP package so that they can operate in parallel with these organisations (Rao, 2000). The major factor which can affect SMEs more as compared to large organisation is the cost as their limited resources don't allow them to bear high cost of implementation. This is one of the main reasons that SMEs do not want implementation to be unsuccessful. Large organisation can somehow bear the cost as large number of stakeholders bank credits etc but SMEs do not have enough resources. (Mabert et al, 2003). This research is conducted so that it can help SMEs to implement ERP successfully.

Proposed research method

Most of the researches conducted are in large organisations and only few of them were for SMEs. Out of these researches some used only one case study while some used different case studies and their research method remained different as well because they used questionnaires and interviews to find out success factors.

After brain storming and critically analysing previous literature review I decided to use the case study approach. For this reason I decided to identify critical success factors in SME while using multiple case studies. (Stuart et al, 2002) suggested that using case study is the best approach when previous research does not find to be inline with new context while taking multiple case studies can provide even more in depth analysis and portray clear picture of critical analysis(Snider et al, 2009).

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In case of our research qualitative analysis will be used. First thorough literature review will be studied by means of online journals, electronic books etc. It will help to find previous critical success factors of ERP adoption in SMEs. To give practical edge to research eight different case studies will be searched and from them critically analysis will be done to find out success factors of successfully implementing ERP project. These case studies are selected with relevance to the project title and literature review. They will provide in depth analysis of ERP adoption success factors. With the help of literature review and case studies a framework will be formed of successfully implementing ERP project.

Method of analysis

For this research case study analysis will be used. Data will be collected from previous research that has been done in this sector and also from small and medium size enterprises that have implemented their ERP application successfully. Case studies will be collected from different parts of the world so that no demographic issues can affect our final framework of success full factors. Then final analysis will be done in between success factors of United Kingdom and rest of the world case studies to observe how much variation is there if different regions are selected. This will be the final analysis and framework of the critical success factors.

Research Limitations:

This study is limited to small and medium size organisations and in some cases some arguments can be taken from the large organization in order to clarify them. This research is self explanatory as it focuses in ERP adoption system of SMEs. In addition to this study concludes with the framework of <https://assignbuster.com/factors-effecting-erp-implementation-in-smes-management-essay/>

ERP critical success factors which if SMEs follows can lead their implementation to success.

A provisional Timetable

Gantt Chart