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ERP system for large scale business vs small & mid-scale business

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ABSTRACT

Enterprise resource planning (ERP) System is being used from last 15 to 20 years and this research paper attempts to identify and explore the main issues affecting on large scale businesses as well as small and medium scale businesses regarding implementation of ERP System in enterprises. In this paper manufacturing companies are ranging in size from million dollar to over billion dollars as per their annual turnover. Basically, this research paper highlights the main issues where the different methods or solutions are to be applied according to organization scale. Except this also the benefits get differed by company size as small and medium companies gets some limitations compared with large companies. Large companies get financial improvement and economically better results whereas this smaller and mid-size organizations get better results in Production as well Logistics and manufacturing sectors.

Keyword— Implementation, Enterprise Resource Planning, Small & Mid-size enterprises, Organizational size, large scale Enterprise, Comparison techniques.

1. INTRODUCTION

From our childhood we had seen juggler – a showman seen in fun fare. That juggler always attracts crowds towards him by using his simplest skill with much more perfection. Like sometimes he juggles basic things ball, fruits etc. And keeps them in air shuffling them hand to hand high. And sometimes he used more dangerous things like knives, chainsaws etc. Even in our real life for a successful business one need to manage many things and must make balance and perfect coordination between them. e.g., in an organization there's Production Planning, Inventory Management, Order Management, Shipment and Procurement, Employee management & so on this all are nothing but our jugglers' balls which cannot be dropped. To maintain balance between all them & tracking each one in entire organization some tool is must. And hence the ERP System comes in picture.

To remain Competitive in market & to get all the benefits of integration nowadays enterprises implement the ERP System or in process to implement the Enterprise Resource planning System. To improve their productivity organizations have been realized the necessity of ERP System in Small & mid-scale businesses as well. In a 2019 Survey of distributors & manufacturers 67% described their Implementations as successful or very successful. The ERP Market remains in phase where it is expected to grow & exceed \$49.5 billion by 2024. In survey of IT decision-makers 53% said ERP was an investment priority in addition to CRM.

2. RESEARCH ISSUE / FRAMEWORK

Besides all underlined issues in this paper there may be other issues which need to explore. There is a scope to investigate more about ERP by taking consideration different types of industries & by comparison using other factors too. For this project I choose to use some methodologies & case studies in a step wise approach.

To get detailed information of each business scale I used case study approach & at last the comparison between each main scale of organization helps to get broader perspective. It is not case that how it is difficult or easy to install ERP system in companies, as many of large companies already using ERP system but many SMEs wants to implement the ERP system and for this, they need to fit in ERP package to achieve this they either change their process to fit I the package or customize their system to fit their process.

3. CASE STUDY

For the case study, get reference from initially done interviews of organizations including some consulting firms & manufacturing companies. And the size of this organizations ranges from \$30 M annual turnover to some of \$35 billion. Due to pandemic, it is

almost impossible to conduct fresh interviews with this firms so, by taking reference & with detailed study of earlier interviews things takes place. The primary objective of this case study was to get detailed comparison of ERP businesses and their implementations, how it works there etc. For the case study following some questions helped –

- (a) What difficulties faced during installation of ERP System & What solution applied to overcome that?
- (b) Which implementation strategies do they applied?
- (c) How much it costs to implement ERP system & for SMEs how gets managed?
- (d) How much customization or change in process of organization required during implementation of ERP system?
- (e) What thing motivates you to implement ERP in your organizations?
- (f) After implementation and usage how much, it is beneficial to your organization? etc.
- (g) This all are the expected questions listed and from the reference research as well earlier interviews tried to find answers.

4. COMPARATIVE ANALYSIS - SURVEY, RESULT

The comparative Analysis study was based on organizational scales and for this analysis we basically taken organizations in categories like:

- Micro scale (Start-ups) Businesses
- Small Scale Businesses
- Medium Scale Businesses
- Large Scale Businesses
- Multinational Businesses etc.
- By doing detailed comparison with all above the exact result achieved.

4.1 ERP for Large Scale Businesses

ERP System is more beneficiary and widely used in Large Organizations compared to SMEs. ERP Implementation varies in developing and developed countries based on some factors like IT maturity, Government regulations, some geographical and economic factors. In developing countries, the major issue is lack of resources as well size & lack of business process management skills reaps the usage of ERP Solution.

One of the Researcher classified the factors into five categories: First were organizational environments, then people characteristics are a major factor, and technical problems, ERP vendor commitment as well, and cultural impact on ERP.

Nowadays Organizational culture becomes a Critical Success Factor here. It is highlighted that the researcher's study occurred in another country i.e., China, California whose culture is a way different from traditional ERP implementers. Most ERP vendors are from Europe and America and they are having their dealership business over there. The variety of cultures between some Western countries where the ERP systems are implemented & developed, and China makes culture an important key fact here. Their standard data analysis has shown that top management support system, business process reengineering tech, effective project management, suitability of software and hardware, and data accuracy has a large impact on ERP System in Various contents.

In a similar developing country like India few researchers, conducted a research paper study by the collection of research data, surveys, and interviews with the major role of large-scale organizations in the Egyptian market and identified some critical issues or factors and classified into two parts - National or Environmental and Organizational or Internal. this gives a good outcome of ERP implementation success which includes National or Environmental with Infrastructural facilities, Economic growth of the country where organization located, Manufacturing, Regional, Government regulations.

4.2 ERP for SMEs

We have been identified by analysing ten and more selective articles, Research Papers & few interviews which are as follow: ERP teamwork and composition Research, Top management support article, Business plan and vision article, Effective communication paper, Project management journal, Appropriate business and legacy system research paper, Software development, Testing and troubleshooting of ERP, Effective – decision-making system, Effective training.

In a research study by one of the researchers after reviewing 28 and more articles and few research papers, they identified ten important success factors in implementing an ERP system in Malaysian organizations which are:

Getting Support from topmost management systems, having Clear goals and objectives towards ERP, better Communication, Effective project management, Business process engineering is important, Data accuracy and integrity, Support from the vendor is important, Education and training, and User involvement.

From various research papers & surveys, we did a study to prioritize the issues which are affecting on ERP system in medium scale industry (SMEs) and some factors were majorly determined like exact and correct data of ERP, training module, and testing modules, employee retention management, never run parallel systems, conference room pilot, customization of process, and clarity in management objective, external consultant dependency, etc.

4.3 ERP Selection

The ERP selection process is primary for an organization to implement it accurately as well as to fit it in the organization-specific package. Therefore, all these teams involved in the selection process of ERP have also been analysed as per the structure, and based on the need of the firm four different types for the structure of the selection group have been identified from below:

- Here, decisions are taken participatively including several departments of the organization with those later affected by the implementation of the system chosen.

- The selection process is always centrally taken place and characterized by a strong focus on the IT organizations and small participation of other internal departments of organizations and no employment of consultants there.
- The top management system always decides with the help of external consultants and the participation of groups from within the organization is always minimal.
- The mixture of characteristics is taken from the above and other industries.

5. DATA COLLECTION

This Research Paper has involved data collection phase in which we searched many of the prime Management Information System (MIS) journals as well Many ERP System interviews including the various researchers could access this, but not limited to those that already included in this:

IEEE Journals, Information Systems Management Journal, Business Process Management Journal, Management Innovation System, Many Research Interviews, Computer Applications international journal & Information Technology journal, Production Research paper, International Journal of Computer Science and Information Security, Interview of ERP Organization 1999 (Indiana), Journal of Enterprise Info Management system.

With few changes & by adding to, the earlier journals, few research papers, articles accessed as well, and some databases were searched like Emerald, Science Direct, ProQuest, ERP data Baanboard data, etc.

6. LIMITATIONS AND CONCLUSION

Here, in this paper, the exact comparison between small to medium-sized (SMEs) and large organizations are focused. By focusing on ERP system requirements and selection process were derived based on a detailed study of many interviews & Past Research.

For example, a group is performing the selection process was discovered based on a different approach in every organization ERP system is always centrally located in the organizational or IT-departments which are related with fewer people is involved is in place in smaller organizations which are ERP Specific. How Large-Scale organizations work & How ERP Solution benefits them is highlighted. For SMEs what all factors affect them while implementation time and what needs to change is given.

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