ERP - ASSIGNMENT 2

Name: Kazi Jawwad A Rahim *Roll No: 28*

Q.1. How ERP and E-Commerce are related? Explain it with examples.

ANS. Electronic Commerce integrates communications, data management, and security services, to allow business applications within different organizations to automatically interchange information. Ecommerce is a multidisciplinary field that includes technical areas such as networking and telecommunications, security and storage and retrieval of multimedia information, business areas such as procurement, purchasing, production, marketing, billing and payment, and supply chain management. These business areas are also part of ERP.

e.g. If we consider any e-commerce application, Amazon. When the customer places an order, the order gets updated in the ERP and it triggers multiple functions automatically like packaging, dispatching, shipping, billing and delivery via good logistic.

Q.2. Explain the concept of Business Processing Reengineering (BPR).

ANS. "Business Reengineering is the fundamental rethinking and radical re-design of business processes to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality service and speed" by Dr Michael Hammer.

It has seven different phases-

1. Begin organizational change
2. Building the reengineering organization
3. Identifying BPR opportunities
4. Understanding the existing process
5. Reengineer the process
6. Blueprint the new business system
7. Perform the transformation

All successful BPR projects begin with the most critical requirement communication throughout the organization.

Q.3. Write short note on Data Warehousing.

ANS. Data warehouse is a collection of data to support the management decision making. It generally refers to combination of many different databases across an entire enterprise. The primary goals of a data warehouse are following-

1. Provide access to the data of an organization
2. Data consistency
3. Capacity to separate and combine data analysis and present information.
4. Inclusion of tools setup to query, 5. Publish used data.
6. Drive business reengineering.

Data is characterized as subject oriented, integrated, Non-volatile and Time variant

Major components of Data Warehouse:

1. Summarized data
2. Operational systems of record
3. Integration/ transformation programs
4. Database architecture or metadata
5. Archives

Advantages:

1. More cost-effective decision making
2. Better enterprise intelligence
3. Enhanced customer service
4. Business Reengineering
5. Information system reengineering

Challenges:

1. Complex extract, transformation and load characteristics including source vs target, data transformations, transaction-based loading.
2. Immense volume of daily data
3. Load methodology
4. Data warehouse recovery
5. Data warehouse validation
6. Data warehouse read performance including database structural design and summarization
7. Metadata management

Uses:

1.Standard reports and queries
2. Queries against summarized data
3. Data Mining
4. Interface with other data warehouses

Q.4. Explain ERP Implementation Lifecycle

ANS. There are no clear separating lines between these phases and in many cases one phase will start before the previous phase is complete. Phases of the ERP implementation are-

Pre-evaluation screening: There are hundreds of ERP vendors- of all sizes and shapes- all claiming to have the solution that is ideal for the organization. It is better to limit the number of packages that are evaluated to less than five. Getting help from external consultants and most importantly finding out what package is used by similar companies.

Package evaluation: Important points to be kept in mind while evaluating ERP software include functional fit with the company's business process, degree of integration between the various components of the ERP system, flexibility and scalability, complexity, User friendliness, quick implementation, ability to support multi-site planning and control, Technology- client/ server capabilities , database independence, security. Availability of regular updates, amount of customization required, local support infrastructure, availability of

reference sites. Total costs, including cost of license, training, implementation, maintenance, customization and hardware requirements.

Project Planning Phase: The implementation team members are selected and task allocation is done. This phase will decide when to start the project, how to do it and when project is supposed to be completed.

Gap analysis: This is arguably most crucial phase in the success of the ERP implementation. Put very simply, this is the process through which companies create a complete model of where they are now and where they want to be headed. The trick is to design a model, which both anticipates and covers any functional gaps. It has been estimated that even the best ERP package, custom tailored to companies needs meets only 80% of the functional requirements. The remaining 20% of these requirements present a problematic issue for the company's BPO. One of the most affordable, albeit painful, solutions entails altering the business to "fit' the ERP package.

Re-engineering: It is in this phase that human factors are taken into account.

Customization: The company needs to know which processes have to change in the process of implementation. SAP for instance, has pre-configured industry specific templates that can be tweaked for each individual company (Accelerated SAP or ASAP solution). Sage MAS 500 ERP system provides a set of customization tools which includes a software development kit and customizer.

Implementation Team training: How to implement it. For the company to be self-sufficient in running the ERP system, it should have a good in-house team that can handle the various situations. Select employees with the right attitude-people who are willing to change, learn new things and not afraid of technology – and good functional knowledge.

Testing: In this phase we test real case scenarios. The system is configured and now you may come back with extreme case of system overloads, multiple users logging on at the same time with the same query, users entering invalid data, hackers trying to access restricted areas and so on. The test cases must be designed specifically to find weak links in the system and these bugs should be fixed before going live.

Going Live: This is the phase where ERP is made available to the entire organization. On the technical side the work is almost complete, data conversion is done, databases are up and running and on the functional side, the prototype is fully configured and tested and ready to go operational. Once the system is "live" the old system is removed and the new system is used for doing business.

End User Training: on how to use the system. This phase starts much before the system goes live. The participants should be given overall view of the system and how each person's action affect the entire system. In addition to these general topics, each employee is trained on the job or task that he / she is supposed to performance the system goes live.

Post implementation (O&M): Once the implementation is over the vendors and hired consultants will go. There should be enough employees who are trained to handle the problems that might crop up. There should be people within the company who have the technical prowess to make the necessary enhancements to the system as and when required. The system must be upgraded as and when new versions or new technologies are introduced. Here, the organization should think in terms of the incremental benefits of the enhancements because with any upgrade or enhancements.

Q.5. What are the limitations of ERP? List the benefits of ERP.

ANS. Limitations of ERP-

1. Policy limitation: ERP systems are not so capable in order to fit into the plan of each and every organization. in order to allow for the specific tasks, ERP systems should be customized. Not all the systems of ERP allow to depend on the system or organization the business uses, this may be against the policy in order to make such drastic changes in the particular.
2. Ongoing support: The support for the ERP systems can also be difficult to depend on. The technical response can is adopted by dealing with various minor problems. However, the major complications with the ERP system can be beyond the customer service limit available to businesses.
3. High cost: There is a very high cost of ERP software including planning, configuration, customization, implementation, testing, etc.
4. Time-consuming: The overall implementation of ERP is considered as a time-consuming task in an organization. the implementation and deployment of the overall project of ERP may take 1 to 3 years to fully function (Bizfluent, 2018).
5. Customization issues: Very less customization may not be able in order to integrate the ERP system with the processes of business and very high customization may be responsible for slow down the overall project as well as make it more difficult in order to upgrade.
6. Participation: The participation of the users is considered as very essential for the successful implementation of the ERP project. hence, the exhaustive user training, as well as a simple user interface, may also be critical. However, it is very difficult to learn ERP systems.

7. Migration: The migration of the existing data in the new system of ERP is considered as difficult to achieve. Along with this, the integration of the ERP system with other types of stand-alone system of software is also difficult. These types of activities may consume lots of time, resources, and money.

8. Decentralized organization: In the decentralized organization, it is very difficult to achieve ERP implementations with the disparate business systems and processes.

9. Evaluation: The evaluation of the process prior to its implementation in the ERP system is considered critical. If the evaluation process is not properly done as well as there is no proper availability of the experienced resources, the overall implementation process of ERP system may fail.

10. Single vendor lock-in: once there is proper implementation of the ERP system, it also becomes a single vendor lock-in for further customization, upgrades, etc. The organizations are at the discretion of the single vendor the organizations may not able to effectively negotiate the services.

11. Indirect cost: The implementation of the ERP system also includes the indirect cost such as new IT infrastructure and up-gradation of WAN links.

Benefits of ERP-

1. Information Integration
2. Reduction of Lead Time
3. Ontime Shipment
4. Reduction in Cycle Time
5. Improved Resource Utilization
6. Customer Satisfaction
7. Improved Supplier performance

Q.6. How the Gap analysis helps in selection of a specific ERP Package?

ANS. This is arguably most crucial phase in the success of the ERP implementation. Put very simply, this is the process through which companies create a complete model of where they are now and where they want to be headed. The trick is to design a model, which both anticipates and covers any functional gaps. It has been estimated that even the best ERP package, custom tailored to companies needs meets only 80% of the functional requirements. The remaining 20% of these requirements present a problematic issue for the company's BPO. One of the most affordable, albeit painful, solutions entails altering the business to "fit' the ERP package.