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Enterprise Resource Planning (ERP) in Security and Planning System

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The Enterprise Resource Planning (ERP) system is an enterprise information system designed to Integrate and optimize the business processes and transactions in a corporation. In the 1990's information technology and business process have combined to provide organizations a competitive advantage. Enterprise Resource Planning (ERP) systems were particularly considered examples representing such development. Existing ERP technology is not yet capable of handling the complexity of the whole supply chain. More supplier relationship management functionalities need to be integrated. statistical report from Harzing's Publish or Perish software. This report will also seek to address the issues and trends, including future trends of the ERP System Life Cycle (SLC) into six major and sub phases.

Key words: Enterprises resource planning, Business process and transactions.

An ERP system enables an organization to integrate all the primary business processes in order to enhance efficiency and maintain a competitive position. However, without successful implementation of the system, the projected benefits of improved productivity and competitive advantage would not be forthcoming. In its basic definition, ERP is an enterprise-wide information system that integrates and controls all the business processes in the entire organization. The Enterprise Resource Planning (ERP) system is an enterprise information system designed to integrate and optimize the business processes and transactions in a corporation. The ERP is an industry-driven concept and systems, and is universally accepted by businesses and organizational industries as a practical solution to achieve an integrated enterprise information system solution. ERP systems have become vital strategic tools in today's competitive business environment. The ERP system facilitates the smooth flow of common functional information and practices across the entire organization. In addition, it improves the performance of the supply chain and reduces the cycle times. However, without top management support, having appropriate business plan and vision, re-engineering business process, effective project management, user involvement and education and/or training, organizations cannot embrace the full benefits of such complex system and the risk of failure might be at a high level.

Enterprise Resource Planning, a business integration approach, has been widely deployed in various kinds of organizations since it was first defined by the Gartner Group in 1990 as the next generation of Manufacturing Business System and Manufacturing Resource Planning software. Today, ERP is considered to be "the price of entry for running a business" (Kumar and van Hillegersberg, 2000).

An ERP system is an integrated,

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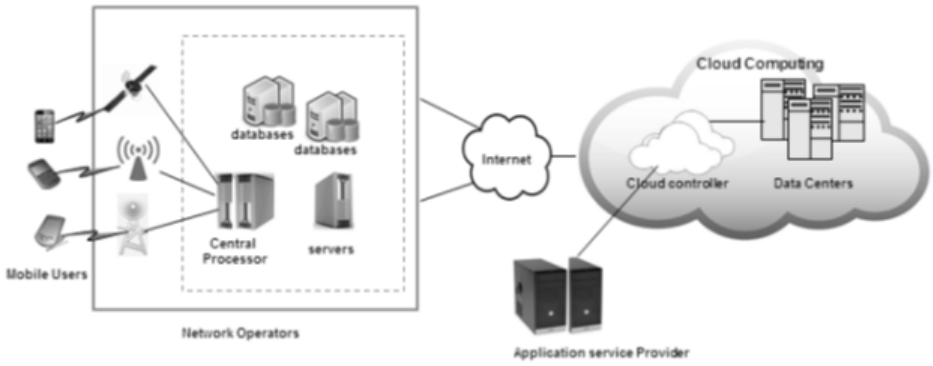
configurable, and tailorable information system which plans and manages all the resources and their use in the enterprise, and streamlines and incorporates the business processes within and across the functional or technical boundaries in the organization. With ERP, an enterprise can automate its fundamental business applications, reduce the complexity and the cost of the collaboration, force the enterprise itself to take part in the Business Process Reengineering (BPR) to optimize its operations, and finally result in a successful business.

Research methodology

A systematic literature review was conducted on relevant journal papers, conference papers, and books on culture, ERP implementation, technology management, and information system management particularly focusing on key themes such as culture, and ERP implementation. These themes were used as key words is searching for related journal articles, conference papers and books from electronic online repositories. The review first examined literature on ERP implementation in various cultures, the focus being to discover the culture factors that affect the ERP implementation.

ERP Technology Overview

ERP systems have evolved extensively over the years. Initially, such systems were used for simple functions such as accounting and human resources planning. With the advent of Web technologies, companies such as Oracle, SAP, and Baan began developing a suite of applications for ERP systems. The emerging technologies such as Web service and eXtensible Markup Language (XML) have had a major impact on ERP systems. In this section, we discuss the various components of ERP systems. We start with a discussion of its architecture and various business components in the next section including financial management, human resource management, production lifecycle management, customer relationship management, and manufacturing management. In the "EDI, XML, and Information Exchange" section, we discuss exchange infrastructure, the cornerstone of ERP systems. In this section, we also discuss the two technologies for exchanging electronic documents among different entities: EDI and XML. Finally, emerging Web services and their relationship to ERP systems are discussed in the final section, "Web Services."



Baan Security using DEM

In Baan (bought by SSA) security architecture (Valente, 1999), we can easily determine if the solution is based on the RBAC model. Baan security solution uses a tool called Dynamic Enterprise Modeler (DEM) to assist the security configuration of Baan. DEM is used to model business processes or functions of an organization and define the roles. Within the architecture of Baan's security solution, there are four concepts: User Employee, Role, and Process.

User

Baan user is the profile including all of an employee's personal information.

Employee

The person who works in the organization.

Role

Defined to indicate the position and the assignments of the employee. All employees must be assigned to a role, and roles will be assigned to the business processes.

Process

Once a process is modeled in Baan ERP, roles will be attached to that process.

Role-Based Access Control

Many of the current systems are based on Role- Based Access Control (RBAC), although they may have different settings of either enhancements (Kern et al., 2002) or simplifications. This model defines roles and grants certain access rights. According to Sandhu et al. (1996), an RBAC model consistsof the following components:

Permissions

Permission is the access to one or more objects in the system. The permission has different meanings in different environment. If in a database system, the permission refers to the rights such as select, update, delete, or insert a record. If an accounting application, it may be the rights such as account creation/deletion, credit/debit, and transfer (Sandhu et al., 1996).

Roles: A role is a named job function within the organization. A role may be hierarchical. For example, an engineer role is also an employee role.

Users: A user is a person who may be assigned one or more roles.

Constraints

In the system where there is only one single administrator, the constraints may be meaningless. If the administration is decentralized, meaning there are several administrators, the constraints will be used by the senior administrator to restrict the junior administrator's right to grant/ deny the permissions.

CONCLUSION

This tentative reflexion suggests that cultural impact on ERP system adoption and use cannot be ignored. As the use of ERP system expands globally, there is need for further research into cultural aspects and implications of ERP system. A greater understanding of the various dimensions of culture, as applied to ERP system and the people who use it, will to more globally acceptable ERP system products and better choices for ERP system. Therefore, there is a need of examine ERP implementation different culturally contexts. It is essential to be aware of the implications of cultural assumptions embedded in ERP software and those reflected in various country organizations settings. Such awareness can assist in assessing ERP suitability, in devising mechanisms to mitigate the impact of cultural misfit, and in increasing value from relatively expensive ERP investments.

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