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Crucial Use of DBMS in E-Management

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Abstract— *The face of business activities has changed significantly over the recent years with new and more effective methods of production being utilized to boost the profitability of the businesses. However, information management systems has been approved as one of the most successful ways of managing business activities and ensuring that they create competitive advantage over the other competitors in the market. On that regard, strategic utilization of information systems in business management is instrumental in foreseeing the success of commercial activities. Thus, the core purpose of this paper is to provide a discussion platform for addressing the various aspects of strategic use of information to ensure that business activities that are conducted through networks and the internet are substantially successful. It should be noted that strategic use of information systems is typically how to define, manage, organize, and provide ways of extracting and modifying incoming data by different users in business activities. The aim of this paper is to present the role and strategic use of information systems in e-management; elements and related issues.*

Keywords— Information Systems, E-Management, Database Management System DBMS.

I. THE ROLE OF DBMS IN E-MANAGEMENT

To begin with, strategic information management primarily depends on effective establishment of good business data base systems. A database management system (DBMS) is a fundamental platform from which computer systems in various organizations depend in conducting different tasks (Figure1). Because of that, business database management systems are designed to provide security functionalities of the different business data to guarantee integrity, accessibility, and consequently, availability of the stored information. Hence, business database security refers to all the collective measures that are deployed in Information Technology to secure and protect a database system or consequently the provision of database management criteria with capabilities of preventing illegitimate uses of the database systems, attacks, and malicious threats. Also, database security system is designed to offer tools, a multitude of processes, and methodologies that provide security practices on the database platform and environment (Vrechopoulos, 2010) Strategic information management systems in e-management is a planned and well-designed Information Technology protocol that is maintained and managed by database administrators and other security professionals who bear the expertise of enforcing security at all levels and aspects of the database system and to ensure that all business activities that are carried out through networks are secure and successful. The essential components of the database systems that addressed in the systems security include; the database server, the stored data, database management system, and other database workflow applications. Far from that, securing data is a complete task that requires highest security scope understanding. The primary security goals that should be addressed in the implementation of the database management security system include; confidentiality, integrity, and availability (Smith, 2010).

II. STRATEGIC USE OF INFORMATION

It is also worth to highlight that strategic use of information in running business activities across the internet and in e-commerce platforms has changed the face of business because it has created new face of reliability. Consequently, the technique has created a strong archive and back up that can be used for data recovery purposes in case of disasters. Moreover, the method is considered to be a relatively cheap because it does not require additional costs of marinating the hardware once the underlying business data has been stored. In addition to that, strategic business has also changed the aspect business in the sense that e-management is substantially a type of business strategy that depends on sharing computing resources across networks instead of developing personal devices or local servers that are mandated with the task of handling

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different applications and business activities (Petticrew, Ian& Alan, 2001).

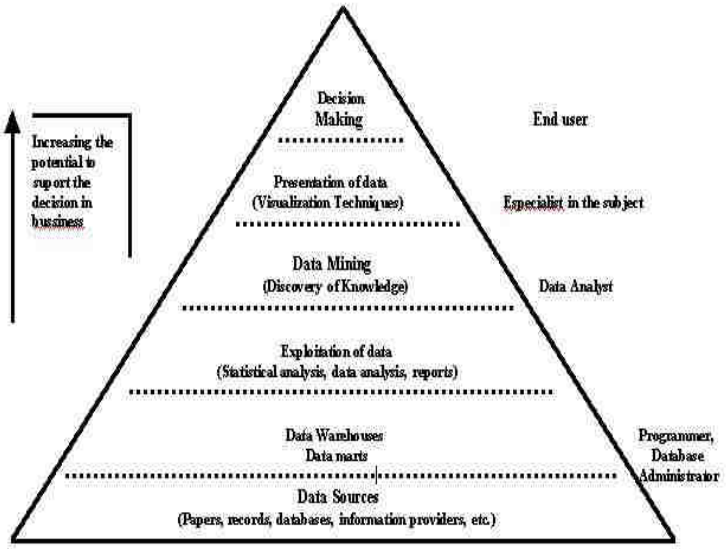

Fig. 1: The Role of DBMS in E-Management

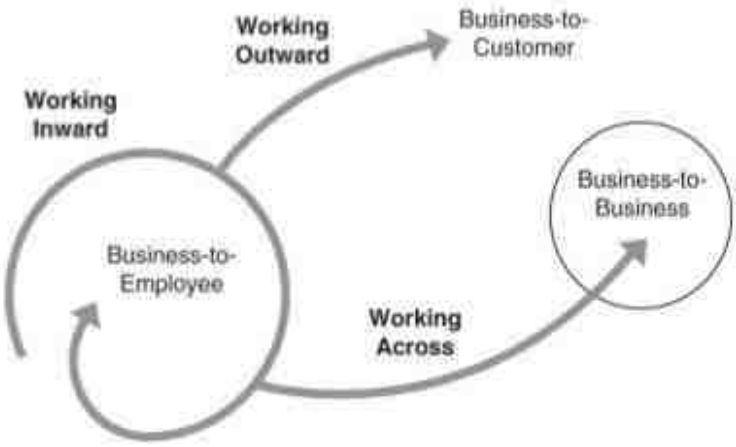

Fig. 2: Strategic Use of Information Systems

III. SECURITY AND DATA RECOVERY

The core purpose of information systems in business activities is to make business activities efficient. Authentication security protocol ensures that access to the underlying business database system is granted to the legitimate and authorized users only. On the other hand, auditing security protocol in strategic information management systems is designed to offer accountability in circumstances where the users are accessing restricted information. Finally, security authorization protocol ensures that different database users are allowed to access the information that they are authorized to access.

Despite the fact that these security protocols protect data from possible losses, they do not prevent unauthorized access to the operating system where information and data are stored. Hence, transparent data encryption measure is incorporated into the business database system to provide encryption to sensitive data in the database columns as they are stored in the operating system. Also, it provides secure storage as well as the management of the encryption keys that are appropriated in the security modules that are located outside the database system. Thus, other than empowering the users, strategic information management systems are also instrumental in ensuring that confidential business information remains secure (Lucas, 2006).

Despite the fact that information systems have revolutionized the face of business in various parts of the world, many security threats surround the general infrastructure of the underlying business database system. Therefore, the subject of addressing the threats and the provision of the necessary measures that can assist in handling the threats is an issue of that great importance. In fact, understanding the risks in extensive grounds

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facilitates the modification and perfection of the use of business database systems and Information Technology as a whole. The fact that strategic use of information systems in business activities depend on the internet means that crucial pieces of information can be lost while conveying these information from one business server to the others. Thus, for effective management of information that relies on network platforms, it is substantially important that the IT experts should design recovery protocols that can be used to retrieve crucial pieces of business information in case of emergency (Kraemer, Kenneth & Jason, 2002).

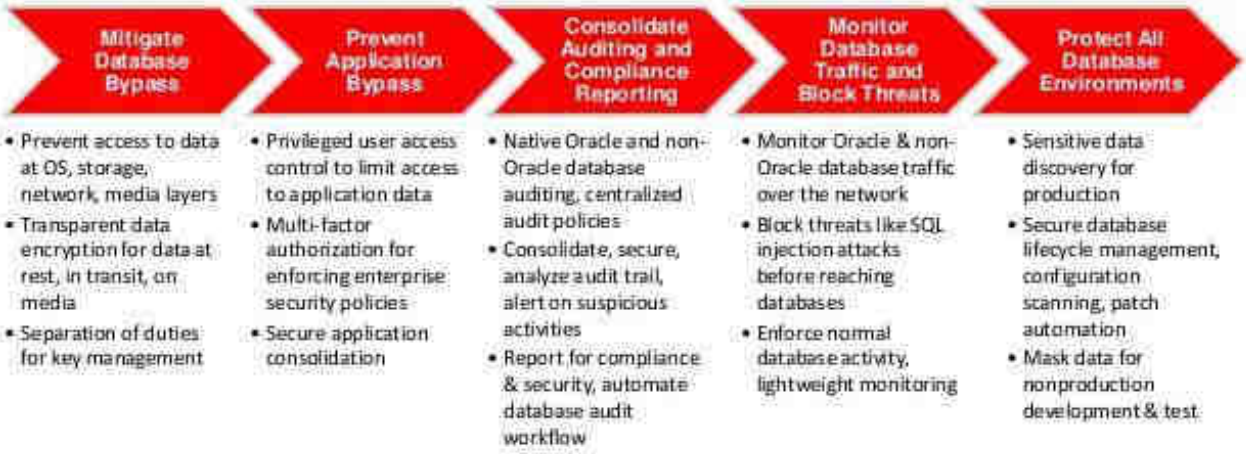

Fig. 3: Database Security Best Practices

The purpose of deploying data recovery protocol in a business database system is to guarantee recovery of data that can be lost in a database system. Consequently, a business data recovery protocol should be designed to incorporate data security policy or comprehensive information of the entire business database system. Besides, there should be full-time monitoring of the backup security data to ensure that the data that is recovered is correct. Different vendors of database systems tend to encrypt backup data to uphold precision and privacy during data recovery. In retrospect to that, organizational employees bear the legal requirement of signing confidentiality agreements and employment background checks as a fundamental formal protocol for facilitating data recovery (Lacity, 2005).

Contrary to that, business information data recovery protocol is also initiated by incorporating the proven data recovery systems in their database systems. One of the security protocols is the pre-programmed mirrored servers that are stored in the remote areas that can be accessed from critical database shut down circumstances. Alternatively, data can be stored on hard disks, tapes, and other backup files that are readily available for loading in new database servers. Data tapes containing requisite data or information should be moved to areas that are cold before they are loaded into the new servers and allowed to run. Consequently, all the data and application need to be debugged in alignment with the best database configuration that was initiated before the critical shutdown of the database system (Allen, 2011).

IV. CONCLUSION

In conclusion, effective information management in business activities is substantially a very sensitive issue. Thus, the fact that business data base systems can necessitate the underlying strategic information management system in business activities that are usually conducted across the internet means that companies should be rational in designing their business data base systems. Besides that, they should also incorporate information management man power that would deployed to foresee effective management of the underlying information that are crucial in foreseeing the success of the underlying businesses. More importantly, business information protocols should be designed in a manner that will substantially necessitate easy sharing of information from both within and outside the business.

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