A business issue in business intelligence

Business, E-Commerce

A business issue in Business Intelligence PROBLEM/ISSUE: Majority of business organizations around the world presently make use of business intelligence systems to improve their business performance. In fact, business intelligence presents an excellent support for corporate management. However, the use of ineffective or unstructured data for business analysis minimizes the quality of decision. In this scenario, Six Sigma can be used to ensure quality of data and decision making. In addition, many organizations use Six Sigma to measure the quality that strives for near perfection. Actually, Six Sigma is a controlled and data-driven method used for removing defects (which drive towards six established standard deviations between the mean and the adjacent specification bound) in any business process varying from transactional to manufacturing and from service to product development. Additionally, the statistical expression of Six Sigma demonstrates quantitatively how a business process (i. e. business intelligence) is working and offering results. However, to attain Six Sigma, a business process (i. e. business intelligence) should not create more than 3. 4 defects for one million opportunities. A Six Sigma chance is after that the whole quantity of probability for a defect (ISIXSIGMA; Morwick). As discussed above, unstructured and semi-structured data sources include data and information which is significant and critical to the business areas/departments. As well, this data is used in decision making. In this scenario, application of Six Sigma can help organizations improve this business process. However, the key issue is whether our business is ready to implement Six Sigma standards. In addition, the investment and management issues regarding Six Sigma implementation for BI system are

also a key concern. DOCUMENTATION AND ANALYSIS: According to Dayal, Castellanos and Simitsis, business intelligence offers several tools for gathering, incorporating, analyzing, and processing huge collection of data and information to enhance business decision making capabilities. However, issues regarding unstructured and semi-structured data in BI systems are one main bottleneck in the enhanced systems working and performance. Given that the business intelligence systems play a significant role in decision making and the growth of an organization heavily depends on a business intelligence system. In this scenario, the use of unstructured and semi-structured data in BI causes lack of accuracy, as a result, the power of decision making reduces (Dayal, Castellanos and Simitsis; Blumberg and Atre; Negash; Wise). In addition, the business intelligence is totally based on data and data collection techniques. In this scenario, the implementation of Six Sigma can play a significant role for improving the quality of this critical process. Basically, the Six Sigma involves two sub-methodologies: DMADV and DMAIC. DMAIC methodology is further divided into sub processes such as describe, analyze, measure, control and improve. It is an improvement system, which is aimed at determining and ensuring the quality of existing process. The Six-Sigma-DMADV process is also divided into sub processes, such as measure, define, design, analyze and confirm. It is an improvement system, which is aimed at implementing new processes to achieve Six Sigma quality levels. However, both the Six-Sigma processes are executed by Six-Sigma Green Belts and Six Sigma Black-Belts, as well as are supervised by Six Sigma Master Black Belts. In addition, numerous frameworks and standards are available for applying Six Sigma quality management

methodology. Moreover, Six Sigma advisors all through the globe possess high level skills and knowledge required for establishment of Six Sigma quality, based on the corresponding change management viewpoints, as well as applications and tools. Hence, an organization can implement Six Sigma methodology to improve the quality of BI system. Additionally, the quality of business intelligence processes will improve the quality of decision making. Thus, the application of Six Sigma will offer a great deal of potential for improvement of business decision support (ISIXSIGMA; Morwick).

RECOMMENDATIONS: The implementation of Six-Sigma standards and quality management support at an organization for improving the process of BI and decision making requires us to make use of homogenous and structured data, which can offer a great deal of support for decision making. Though, many different applications of business intelligence and analytics may not observe the value of incorporating unstructured data as fraction of their corporate intelligence decision support structure (ISIXSIGMA; Morwick). The adoption of Six-Sigma standards for improving the quality of BI system will require appropriate staff training and certifications regarding Six-Sigma. In this scenario, organization must design training programs for their workers. For instance, Motorola and General Electric have developed certification programs for Six Sigma accomplishment, confirming individuals' authority of the Six Sigma techniques at the applicable skill stage (ISIXSIGMA; Morwick). For the successful implementation of Six Sigma, an organization must develop an appropriate strategy. In this scenario, the top management should hire dedicated personnel to direct this process, as well as to advise others who are working to create processes essential for the

improved BI system (ISIXSIGMA; Morwick). Culture is one of the major determinants of success of a business. Culture can play a significant role in implementing Six Sigma methodology successfully and effectively. For this purpose, an organization should build a formal process improvement plan and strictly follow it (ISIXSIGMA; Morwick). Just kicking-off a Six-Sigma plan for our business does not ensure acceptable outcomes. Though, a business is able to augment its probability for success without prejudice evaluating whether the essential factors for achievement at present are existing in the business. After that, our business will be able to initiate spending time preparing a well-thought-out operational plan for Six-Sigma standards application (ISIXSIGMA; Morwick).

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