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A Transformational Model to Understand the Impact of Enterprise Systems for Business Benefits

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Abstract

Over the years many organizations have implemented an enterprise system (ES), also called enterprise resource planning (ERP) system, to streamline the flow of information and improve organizational effectiveness to produce business benefits which justify the ES investment. The effectiveness of these systems to achieve benefits is an area being proactively researched by both professionals and academia. However, most of these studies focus on ‘what ESs do’ rather than ‘how ESs do it’. The purpose of this study is to better understand how organizations derive benefits from utilization of an ES and its data. This study utilizes a transformational model of how ES data are transformed into knowledge and results to evaluate the impact of ES information on organizational functions and processes and how this can lead to business benefits. The linkage between expected outcomes, utilization of ES data in decision-making processes, and realized or unrealized benefits provides the reason for this study.

Findings reveal that the key benefits commercial firms seek from an ES include improving information flow and visibility, integration and automation of functions, cost reductions by reducing inventory, and achieving process efficiencies for both internal and external operations. The various tools and methods businesses use for transforming ES data into knowledge include the use of data warehouses and business intelligence modules that assist in extraction and manipulation of data, and reporting on particular data objects. Web portals are actively utilized to collaborate between stakeholders and access real-time information. Business tools such as KPI reporting, balanced scorecards and dashboards are used to track progress towards realizing benefits and establishing analytical decision making.

Findings emphasize that benefit realization from an ES implementation is a holistic process that not only includes the essential data and technology factors, but also includes other factors such as business strategy deployment, people and process management, and skills and competency development. Findings reveal that business organizations generally lack in producing value assessments that often lead to weak business cases and insufficient benefit models which cannot be used for benefit tracking. However, these organizations are now realizing that it is not enough to put in an ES and expect an automatic improvement. Organizations are now establishing analytical and knowledge-leveraging processes to optimize and realize business value from their ES investment.
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