

Chapter 10

Strategic Information Systems in Arab Organizations

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ABSTRACT

Organizations are increasingly dependent on information systems, and they invest dearly on systems to integrate disparate business functions, automate business processes, and support operations in order to sustain business and survive in a competition-intensive business environment. However, such systems have in many occasions failed fully or partially. The lack of “fit-to purpose” seems to be the common factor among most of the failed cases. This suggests that such systems are not selected, implemented, configured, or supported based on a proper analysis and understanding of the organization structure and hierarchy, business functions, business processes, and business environment. Evidently, the majority of organizations tend to emphasize system specifications that match their operational and tactical requirements, with little attention given to strategic requirements, culminating in issues with strategic planning and decision making. This chapter uses a survey and simple model based on the characteristics and competitiveness indicators of strategic information systems (SIS) to examine the impact of such systems on the business performance in 16 medium to large Arab organizations. The study concludes with an emphasis of the importance of SIS to help organizations achieve excellence and competitive advantage and realize business objectives and goals.

INTRODUCTION

In a highly competitive, globalized environment, the performance and sustainability of modern government and business organizations, are becoming increasingly dependent on information systems, and technology applications. There is no doubt that information systems, have a major strategic potential, due to their great influence on modern businesses, as they evidently have influenced both societies and individuals alike (Mendonca, 2004; Norita & Alhaj, 2012).

Through database management, integration and process automation, information systems are well-established as the main contributors, to help organization achieve operational excellence, produce new products, services and business models, boost relations with suppliers and customers, improve planning

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and decision making, attain competitive advantage and even ensure survival in an aggressive environment and circumstances. (Lauden & Laudon, 2008).

However, information systems and technology have never been problem-free, and the rosy picture that was engraved in the minds of management and staff alike, was shuttered as a result of facing problems, of many different types including, technical, functional and people issues. Issues and problems that have led to either partial or complete failures, excessive costs, end-users resistance or the rejection of systems among other things (Dwivedi, Ravichandran, Williams, Miller, Lal, Antony, & Kartik, 2013b; Yeo, 2002)

It is only common sense to view information systems and technology strategically, not only because of their criticality to business performance, sustainability and survival, but also due to the high investment and operating costs, as well as the long term and far reaching impact on all aspects of the business (Altaf & Khalif, 2016).

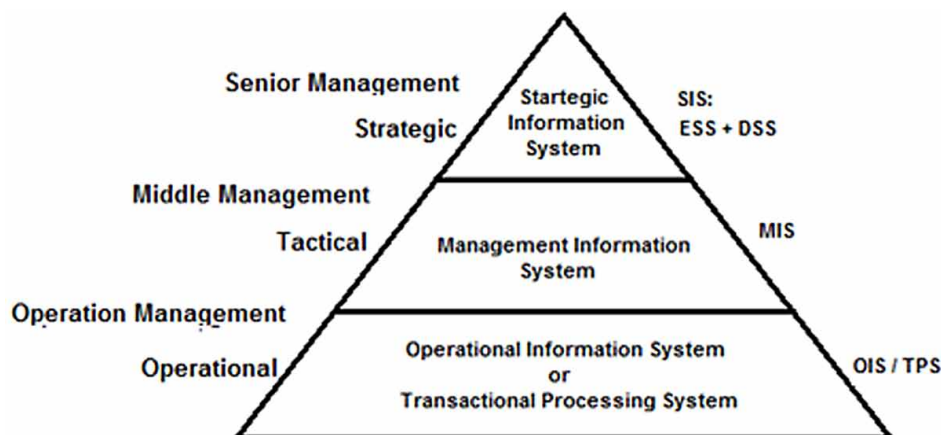
Therefore, in order to maximize the benefits and business gains from information systems, and to minimize issues, and mitigate risks associated with using such systems, strategic best practices were prescribed to guide their effective use and utilization securely. Thus, leading to the emergence of new concepts and disciplines such as; Information Systems Strategic Planning (ISSP) and Strategic Information Systems (SIS), Strategic Digital Transformation (SDT) and Strategic Artificial Intelligence (SAI) (Xu & Kaye, 2010; Shirazi & Soroor, 2007).

The main objective of this paper, is to investigate and assess –using a simple SIS model- the impact of strategic information systems, on business performance, and ability to achieve competitive advantage, in a number of medium-large organizations in the Arab regions, to pinpoint evident gaps and weaknesses, and suggest solutions for improvement (Brown et al, 1995).

The Information System Pyramid

In order to understand the main characteristics and features of a strategic information system, in a typical business organization, it is useful to review the different types of information systems, and what they are ideally suitable to support, in an organization hierarchy level. The Information System Pyramid shown in Figure 1, illustrates a conceptual mapping of the organization hierarchical levels to the matching information systems types (Kimble, n.d; Habibullah, 2016).

Figure 1. The information system pyramid
(Source: Habibullah, 2016; Laudon & Laudon, 2014)



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