Chapter 5

Information System Strategy Development and Implementation in the Egyptian Small and Medium Construction Enterprises

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ABSTRACT

Egypt’s diversified economy has historically performed below its potential; however the Egyptian government is recognizing the importance of small to medium enterprises (SMEs). SMEs face many constraints including weak supply of skilled labor, limited access to capital and poor access to IT. This chapter provides an investigation into the Information System (IS) strategy of SMEs in Egypt using questionnaires and case studies to explore whether SMEs in Egypt follow a comprehensive IS strategy or whether IS is not viewed as an important factor in organisational success. It was evidenced that most Egyptian SMEs lack the structure needed to successfully plan an IS strategy. However it was discovered from three case studies that organisations operating with a structured hierarchy proved to be far more advanced with regard to IS strategy planning. In addition, communication between levels was more efficient; therefore alignment of IS strategy with business strategy was inevitable. It was also evidenced that top management involvement is present at the decision making stages and through implementation, and IS planning is undertaken in some way by Egyptian SMEs. However they face many problems with lack of resources and lack of expertise. This is mainly due to management not understanding the need to recruit experienced individuals.

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INTRODUCTION

Small and medium-sized enterprises (SMEs) are a vital part of any national economy. Nowadays, to survive in the global knowledge-based economy, SMEs have to improve their products, services and processes, exploiting their intellectual capital in a dynamic network of knowledge-intensive relations inside and outside their borders (Levy and Powell, 2005). The managerial challenge, then, consists of creating new knowledge management (KM) configurations – in term of technological and organisational tools – leading to organisational models sustainable from the competitive point of view (Metaxiotis, 2009). On the other hand, it is nowadays clear that advanced decision support systems (DSS) as well as business information systems (BIS) assist enterprises in automating and integrating corporate cross-functions and provide the basis for business process management integration in order to minimise costs and increase efficiency and effectiveness of enterprises (Kirytopoulos et al., 2009).

In the European Union, there is currently a debate concerning the necessity to support SMEs and enhance their competitiveness through tools fostering technological and strategic-organisational innovation. Janez Potočnik, the European Commissioner for Science and Research, stressed in Paris (15 September 2008) that SMEs are the DNA of the European economy (Metaxiotis, 2009). The figures prove this statement:

- There are 23 million SMEs in Europe... some 99% of all businesses
- They employ 100 million people... some 70% of the workforce.

However, it is agreed that many SMEs do not invest in ICTs. The 2005 e-business report shows that while many medium-sized SMEs are now catching up, small firms (up to 49 employees) remain behind. Some remain sceptical about ICT and e-business, finding many IT solutions still too expensive or untrustworthy. In general, SMEs hesitate to implement IT methodologies, mainly due to the following factors (Ergazakis et al., 2009):

- KM is being considered as an unaffordable luxury
- SMEs consider that KM cannot offer them strong advantages
- They doubt whether they can apply KM into their processes.

It has been noted that in most developing countries, SMEs have low interest in obtaining foreign technologies and are even less able to absorb and adapt these technologies to their own use (Levy and Powell, 2005). This research gives a chance to identify whether SMEs in Egypt follow a comprehensive IS strategy (ISS) or whether IS is not viewed as an important factor in organisational success. Strategic IS planning was ranked on the top of the listings of critical issues in IS management (Niederman et al., 1991). Earl (1989) stated that the planning approach should not differ too much from the organisation’s general planning style and control structure and it should also reflect the complexity and significance of the organisation’s IS and the consensus about the mission of the organisation’s IS department. Formulating an ISS is now seen as a fundamental necessity in the modern organisation, where business tasks are linked both internally and via networks (Bentley, 1998).

In this manuscript, we present an investigation whose objective is to achieve an investigation into the IS strategy of SMEs in Egypt, by exploring whether Egyptian SMEs follow the traditional IS models that are used by organisations in the Western civilisation or do they have an equally effective procedure. In Egypt, the business environment is characterised by certain organizational practices and management style deficiencies (such as authoritarian management style) and limitations of financial resources (Lynch, 2006). Therefore,