Sustainability of Strategic Information Systems in Emergent vs. Prescriptive Strategic Management

Amin Hosseinion-Far, Leeds Beckett University, Leeds, UK
Victor Chang, Leeds Beckett University, Leeds, UK

ABSTRACT

Since the introduction of the ‘Strategic Information Systems’ (SIS) concept by Wiseman in 1985, there have been numerous efforts in incorporation of such systems by businesses for the very main reason of gaining competitive advantage. Considering the broad categorization of Strategic Management into emergent and prescriptive types, integration of SIS into business processes seems to be dissimilar in these two categories. This paper initially outlines the phases in the two types of strategic management approaches. It then intends to produce a framework for integration of SIS in each of the two methods. Lastly, the sustainability of SIS in emergent and prescriptive strategic management is compared. Our points of views on the Modern SIS have been presented.

Keywords: Emergent Strategic Management, IT Systems, Prescriptive Strategic Management, Strategic Information Systems (SIS), Systems’ Sustainability

1. INTRODUCTION

According to Wiseman one of the first instances of the use of Strategic Information Systems (SIS) was by the American Airlines where it started operating reservation systems (1985). Although this might not be the paramount case, but is the one reported and published first in the contexts of strategic management and computing. Since then, emergence of new-fangled information technologies and the rapid pace of new technologies’ appearances have had a great push towards incorporation of IT systems in organizations. Advances in knowledge management and representation, artificial intelligence, data warehousing and big data schemes are some instances of these developments. Today, many industries and businesses will be fragile without the use of information systems and technologies. Nonetheless, the techniques of integrating information systems at the strategic level of a corporation should correspond to the vision, mission and the

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purpose of that business (Issa-Salwe et al., 2010). Strategic approaches introduced by Mintzberg (1994) and Porter (1996) are in two different settings. The vision, mission and purpose, layout and attributes of these two management techniques are often unalike. The phases in each of these two strategic management categories are also dissimilar. Therefore assimilation of an SIS in business process which is following not the same approaches to strategic management will be likewise different. Once the SIS is embedded into the business processes, then there will be a question that for how long this SIS will give the business a competitive advantage. Gaining a Sustainable Competitive Advantage (SCA) through use of SIS would require a longitudinal study on a variety of case studies. However this might not be possible in emergent strategic management by which the company’s strategy is set for a shorter period of time.

2. STRATEGIC INFORMATION SYSTEMS

Strategic Information Systems are the information systems that assist the policy makers and strategic to align the business initiatives and bring opportunities to the business (McNurlin et al., 2005). The term was initially introduced by Wiseman (1985), however, further discussions and thoughts have been established ever since. Turban et al. introduce number of priorities for use of an IS for strategic alignment of a business:

1. Innovative applications
2. Competitive weapons
3. Changes in processes
4. Links with business partners
5. Cost reductions
6. Relationships with suppliers and customers
7. New products
8. Competitive intelligence (Turban, 2006)

Looking into Turban’s factors, we would notice that each of the above mentioned priorities can be mapped in at least one of phases of both emergent and prescriptive strategic management framework. The priorities can also be mapped against other models and frameworks for SIS sustainability.

3. EMERGENT STRATEGIC MANAGEMENT

In the emergent strategy, the objectives and some of the elements of the strategy are developed as the strategy goes ahead (Mintzberg, 1994) (Figure1). Usually such strategies are set for shorter periods of time compared to prescriptive strategic management approach. Such strategies are considered for volatile environments where full examination and establishment of the vision, mission and purpose cannot be accomplished (Mintzberg, 1994; Robinson, 2012). A good example of this can be Virgin Group which has adopted embryonic activities by entering different industries. In the UK alone the company now provides services and products through Virgin Atlantic, Virgin Cola, Virgin Mobile, Virgin Train, Virgin Money, etc. This approach intends to benefit the corporation by making money through a variety of operations and services. Although the company has suffered in certain industries due to challenges in the environment (Thompson, 1999), however has thrived in other sectors in the same period.
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