An Actor-Network Analysis of a Case of Development and Implementation of IT Strategy

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ABSTRACT

Increasingly, many organisations are highly dependent on support from Information Technology (IT). Even though Carr has controversially argued that IT does not matter, there seems to be prima facie evidence that even the most ambitious business vision still needs IT to enable it. As such, there has been much focus and emphasis on technologies, and less attention on non-technical components in the development and implementation of IT strategy. This study is focused on the connection between the technical and non-technical, including the relationships between actors in the development and implementation of IT strategy. This article describes how Actor-Network Theory (ANT) was employed to investigate the impact of non-technical factors on the development and implementation of IT strategy in an organisation. ANT was used as it can provide a useful perspective on the importance of relationships between both human and non-human actors. Another example: design and implementation of a B-B web portal, is offered for comparison.

Keywords: Actor Network Theory, Development, Implementation, IT Strategy, Technical, Non-Technical

INTRODUCTION

IT strategy serves as the ‘road map’ to guide an organisation on technology issues over a period of time. To this end, IT strategy allows all parts of the organisation to gain a shared understanding of priorities and goals for the time period as defined by the strategy. A definition of IT strategy by itself cannot influence development of this strategy as both the development and implementation
stages encompass components including Technology, People and Process. Technology is what people make of the definition—how they internalise it—this matters as it shapes the development and implementation processes.

Technical and non-technical factors are crucial in the various phases of IT strategy development and implementation, and provide opportunities for those in positions of power in the organisation to exercise the most explicit influence. Salzman (1998) emphasises that the outcome of IT strategy is as a result of a continual process from development to implementation, of many actors’ influence on IT strategy. In spite of the importance associated with IT, some experts such as Carr (2003) have controversially challenged its use. In his article “IT Doesn’t Matter”, Carr (2003, 2004) argues about whether IT actually mattered in an organisation’s performance and competitiveness. The uses, techniques, power and presence of IT have increased tremendously over the years (Andreu & Ciborra, 1998), and Kling (1980) addresses how, on the one hand, computing has affected social structures while, on the other hand, the underlying social structures influence computing processes. Kling provides a very helpful scheme to examine theories accounting for people’s resistance to the introduction and implementation of technologies and identified six distinct theoretical perspectives, namely: rational, structural, human relations, interactionist, organisational politics and class politics. According to Walsham & Waema (1994), both the development and implementation stages are critical in an effective IT strategy. They base their argument on the end product of development and implementation of IT strategy, which to them, determines to a certain extent what level of service the organisation offers to its clients through the application of technology services.

Even though work has been done in the area of IT strategy both in the academic and professional domains, it is considered that many problems still exist in the development and implementation phases. Some of the work include that of Walsham and Waema (1994), Allen (1995), Wyatt (2001), Mack (2002), Papp & Fox (2002) and Barton (2002). Even the most ambitious business vision still needs an IT strategy to enable it (Benamati & Lederer, 1999), and what is more important is that the connection between IT strategy and business strategy must be understood. IT strategy is only a means to an end, and to achieve its goals and objectives, it needs to be implemented (Ward & Peppard, 2002). According to Gottschalk (1999), implementation is important for four reasons: opportunities can be lost, efforts could be duplicated resulting in technology incompatibilities and a waste of resources, the extent to which the IT strategy achieves its goals and objectives is determined by the implementation, lack of implementation leaves the organisation dissatisfied with and reluctant to continue strategy development, and lack of implementa-
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