Chapter 49

Adoption of Information Technology Governance in the Electronics Manufacturing Sector in Malaysia

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ABSTRACT

Past studies and surveys of top management in business and information technology (IT) have shown the importance of strong IT governance in delivering results to the business. This research investigates the extent to which empirical results from past studies is applicable to the electronics manufacturing sector in Malaysia. Empirical evidence from 33 organisations in this sector indicates that having the right decision owners making appropriate decision types lead to better IT governance performance. Organisations with growth as their primary goal demonstrate marginally higher IT governance performance, contrary to expected outcomes. The research also shows that awareness of industry IT governance frameworks is not related to IT governance performance. We conclude that adoption of IT governance is on track, though familiarity with technicalities of the available frameworks should be improved.

INTRODUCTION

Overview

Governance, in general terms, can be understood as the act or process of governing, specifically on the authoritative direction or control. The term "IT

governance" as it is known today surfaced in the early 1990s with Loh and Venkatraman (1992) and Henderson and Venkatraman (1993) using the term to describe the mechanisms to ensure attainment of necessary IT capabilities.

In this paper, the terms IS and IT are used interchangeably. The definition of IT governance in this context is based upon the following:

1. Van Grembergen (2002) terms IT governance as the role of Board, executive management and IT management to achieve alignment of business and IT strategies through control over formulation and implementation of IT strategy.
2. IT Governance Institute (2003) defines IT governance as "the responsibility of the board of directors and executive management" and "is an integral part of enterprise governance and consists of the leadership and organisational structures and processes that ensure that the organisation's IT sustains and extends the organisation's strategies and objectives" (p. 10).
3. IT governance is "specifying the decision rights and accountability framework to encourage desirable behaviour in the use of IT" (Weill & Ross, 2004, p. 8).

Research Context

Various studies and surveys of top management from business and IT have shown the importance of strong IT governance in delivering results to the business. Of significant importance is the study of IT governance in 256 companies in 23 countries conducted by Weill and Ross (2004). The study provided empirical evidence that strong IT governance leads to more successful business outcomes. This research intends to validate the empirical evidence in the context of electronics manufacturing sector in Malaysia. The motivating factors behind such a research context will be discussed shortly.

Malaysian Industry Development Authority reported that the electronics industry (in combination with electrical industry) achieved a 10.8% increase in sales value to RM195.7 billion. The production index of the industry expanded by 8.7%. Specifically for the electronics industry, the production of semiconductors and other electronic components expanded by 10.4% in tandem with the growing global semiconductor market (Malaysian Industrial Development Authority, 2006).

In addition to the economic significance of this sector to the national economy, there are two other factors behind the choice of research context. Firstly, distinguishing from financial sector where IT governance implementation is often mandated by statutory requirements, such initiatives in the electronics manufacturing sector are likely to be voluntary and driven by business benefits.

Secondly, the use of technology, including IT, is pervasive as the industry moves up the value chain after more than three decades since the first foreign investment started operation locally. The maturity of IT usage means the focus has shifted from basic infrastructure initiatives towards effective use of IT, hence more likely to have emphasis on elements of IT governance.

Problem Statement

With the motivating factors described above, this research was carried out in late 2006 to validate the empirical results from Weill and Ross (2004) in the organisational context of electronics manufacturing sector in Malaysia. Specifically, the research questions are:

1. What is the as-is IT governance level?
2. Why do organisations implement IT governance?
3. How successful has IT governance contributed to the intended outcomes?
4. What are the factors affecting IT governance performance?

The research intends to explore the as-is situation of structure, awareness and performance of IT governance, understand the motivation of IT governance initiatives and assess the alignment of IT governance with business strategies.

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