

An IT Capital Performance Indicators Study
- A Case Study Approach in High-Tech Industry

Abstract

Assessing the performance of Information Technology (IT) investments is an issue that concerns every IT manager. It is an enterprise's primary goal to integrate IT into critical business processes effectively, but the value and influence of a firm's performance is very difficult to show in financial statements and quantify using regular assessment methods. This research first reviews the existing approaches in measuring tangible and intangible IT assets and then points out the IT capital which is a new concept to integrate the existing approaches in order to tackle the measure and quantification issue. IT capital is the IT ability that an organization and an enterprise accumulate over a period of time to gain the competitive advantages for companies, including tangible and intangible benefits. This study examines the development of a set of dimensions and indicators to assess IT capital. The research approach is case study orientation. There are six live case studies we have conducted to develop and verify the set of performance indicators for IT capital. A questionnaire approach was taken to gather the scores from the IT managers to provide the validity of the indicator development.

Keywords: IT Capital, IT Assessment, Intangible Assets, Performance Indicator, Firm Performance

企業資訊科技資本衡量指標之研究－以高科技製造業為例

摘要

資訊科技投資的績效要如何評估，是所有資訊經理人關切的議題。將資訊科技有效整合到企業核心程序，是企業對於資訊科技的首要目標，但價值的產生要如何衡量、對績效形成怎樣的影響，卻很難在財務報表或其他有形的評估方式中表現出來。企業無形資產中存在著各種的智慧資本，雖然單獨以資訊科技無法帶來足夠競爭優勢，但若以資訊科技的力量來結合其他無形的資本，確能產生顯著的價值。

本研究回顧有形與無形資產的衡量方法，提出資訊科技資本的概念來整合既有方法，以評估企業資訊科技的效益。資訊科技資本是組織或公司長期累積資訊科技的能力，包含有形與無形的資產。資訊科技資本要如何衡量，是否可以分解出適當的構面，以幫助企業快速評量資訊科技資本的流量與存量呢？本研究初步建構一套衡量的構面與指標，期望透過可標準化衡量的指標，讓企業對於資訊科技的管理與維護，有更合適方便的方法。

高科技產業的環境變動迅速，對資訊科技的應用需求更形重要，如何快速掌握資訊科技的能力，是企業能夠快速運用策略的決勝關鍵。本研究訪談六家高科技產業個案公司，驗證本研究提出的資訊科技資本指標，並請資訊經理人針對指標提供適用分數，做為驗證指標發展的有效性評分。

關鍵詞：資訊科技資本、資訊科技評價、無形資產、績效指標、企業績效