Chapter V
Performance Measurement in the SMEs in the Information Industry

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ABSTRACT

This chapter identifies the challenges, features, and drivers of performance measurement (PM) in the SMEs in the IT industry and introduces a PM framework based on the system theory and business excellence model for SMEs. This study finds that a dynamic and flexible PM framework is more suitable to SMEs than a mechanized PM model. By examining the PM features and key success factors in SMEs in the IT industry, this study concludes that traditional PM theories and tools are not suitable for SMEs, which is supported by many recent studies on PM in SMEs.

INTRODUCTION

During the last two decades, many performance measurement (PM) theories and tools were introduced. Most of these performance measurement frameworks are developed for large organizations. Up until now, there is no consensus on whether these theories and tools apply to small- and middle-sized firms (SMEs). Some scholars (Abouzeedan & Busler 2005; Hudson, Smart & Bourne 2001; Hvolby & Thorstenson 2000) believe that PM in SMEs is quite different from that in the large enterprises. It is believed that PM in SMEs has its special characteristics and cannot be regarded simply as a small version of that in big enterprises.
The issue of PM in SMEs has been addressed by different approaches based on the features of SMEs. Hvolby et al. (2000) analyzed the use of balanced score card (BSC) and suggested that the choice of indicators for PM in SMEs has to be highly prioritized because of strongly constrained resources. They believed that the use of a very limited number of performance indicators might have some further advantages in SMEs. Hudson et al. (2001) compared different PM models. They found that SMEs always have limited resource with a dynamic, emergent strategy, which implies limitation of the existing PM models that require intensive resource and are strategically oriented. Therefore, the performance model in SMEs should be very resource effective and be dynamic and flexible enough to accommodate the strategic changes. Abouzeedan et al. (2005) used a series of failure prediction model and decision making model to discuss the issue of PM model. They found that none of the models specifically address the SMEs area. Through studying the use of quantitative and qualitative measurement in small firms, Jarvis, Curran, Kitching, and Lightfoot (2000) found that small firms pursue a range of goals rather than profit. Small business also uses a variety of measures and indicators to assess business performance. In particular, cash flow indicator was considered to be critical and the quality of inputs and outputs is often used. Besides, the use of ISO9000 certification in SMEs has been studied (Mulhaney, Sheehan, & Hughes, 2004; Rahman, 2001). All the previously mentioned studies agree that SMEs are different from big enterprises in terms of their tightly constrained resources; therefore, SMEs have not enough resource and time to conduct a PM system that is issued by large enterprises. Furthermore, there is hardly any study that was done from a holistic perspective of PM.

From another aspect, as a fast growing industry in the new economy, information technology (IT) industry has many special characteristics, which are different from the traditional industry. Hence, the performance measurement in IT industry is always a challenging issue. Cumby and Conrod (2001) mentioned that historic financial data is not enough to satisfy the performance measurement in the new economy. They stated that sustainable shareholder value is driven by non-financial factors such as customer loyalty, employee satisfaction, internal processes, and the organization’s innovation. In the new economy, financial reports are of limited use in predicting shareholder value. For the standard and poor 500, only 10% to 15% of market value is captured by traditional accounting measures (Webber, 2000). Particularly, for the high technology enterprise, multi-various performance methods, which include financial and non-financial and other performance measure methods, are indispensable. There is also some empirical research on the IT industry. For example, Wright, Smith, Jesser, and Stupeck (1999) analyzed the correlation between information technologies, process reengineering and performance measurement in the Compaq Computer Corporation using the balanced scorecard. However, in spite of many PM studying on the IT industries, the literature review shows that there is little research on the IT industry’s performance measurement from a comprehensive and holistic perspective.

In this chapter, based on a comprehensive literature review of performance measurement in SMEs, the key success factors in SMEs in the IT industry were investigated through a qualitative study. Then the features of performance measurement in IT SMEs were discussed. This chapter concludes with a proposed performance measurement framework for SMEs in the IT industry.

In this study, the following terms are used and defined for the purpose of the study:

**Small- and medium-sized firms (SMEs):**
This study agrees with the European Union (EU)'s definition that SMEs are those enterprises with employees between 10 to 250 persons and the turnover is 40 millions EUC (UN-ECE 1996).
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