Managerial Tools and Techniques for Decision Making

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INTRODUCTION

The main aim of this chapter is to explain what considered as managerial tools and techniques for decision making in the area of management accounting and how they developed and evolved over the time. This chapter is intended to help us document the innovation, evolution and the adoption of a variety of relatively new management accounting techniques and practices in organisations. The chapter also looks at primary tasks/services performed by managerial techniques and tools to capture a wider range of techniques/tools that contribute to the conduction of managerial tasks/services but may not be listed as managerial tools in the literature. In doing so, the article first reviews the introduction of management accounting techniques of the past few decades in the literature and then investigates their implementations in practice. Exploring the levels of organizational satisfactions with adopted management accounting innovations in practice, the article finally discusses the level of associations between the adoption of management accounting innovations and organisational satisfaction

BACKGROUND

There is no universal consensus on what techniques constitute management accounting practice and innovations (Cadez & Guilding, 2008). It is argued that many management accounting techniques are drawn from other disciplines such as engineering and economics (Miller, 1998; Miller, Kurunmäkii, & O'Leary, 2008). According to Miller, et al. (2008), practices such as standard costing, discounted cash flow (DCF), break-even analysis, and much more have been drawn from disciplines other than accounting and then adapted, and constituted as the core of accounting. Contributing to our understanding of what techniques constitute management accounting practices and innovations, this chapter reviews the most prevalent management accounting changes introduced in the literature over the past 70 years. It then examines the adoption and diffusion of latest management accounting innovations in organisations. And finally, the chapter discusses the levels of association between organizational satisfactions and adopted management accounting innovations in practice.

MANAGEMENT ACCOUNTING INNOVATIONS

We may refer to relatively new managerial techniques (introduced over the past three decades) as 'innovation' in this chapter. Rogers (2003) defines innovation as an idea, practice, or object that is perceived as new by an individual or another unit of adoption. Further, he suggests that if the individual has no perceived knowledge about an idea and sees it as new, it is an innovation. Likewise, Damanpour and Gopalakrishnan (1998) define innovation as the adoption of an idea or behaviour new to the organisation. The common criterion in any definition of innovation is newness. According to Rogers (2003), newness in an innovation might be expressed not only in terms of new knowledge, but also in terms of

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the first persuasion, or decision to adopt. Wolfe (1994) explains the diffusion of innovation as a way the new ideas are accepted (or not) by those to whom they are relevant. Rogers (2003) extends this definition to consider diffusion as a process by which an innovation is communicated through certain channels among the members of a social system. In line with above definitions, we may refer to the process of the evolution and the adoption of relatively newer managerial techniques as 'diffusion' in this chapter.

LITERATURE REVIEW

Johnson and Kaplan (1987, p.12) claim that most of current managerial techniques have been developed during the nineteenth century and the first quarter of the twentieth century. They list the most popular techniques and practices developed by 1925 as follows: cost accounts for labour, material, and overhead; budgets for cash, income, and capital; flexible budgets, sales forecasts, standard costs, variance analysis, transfer prices, and divisional performance measures. According to Chandler (1977), management accounting systems (MAS) first appeared in the United States during the nineteenth century. Johnson & Kaplan (1987) reported that before World War I, the Du Pont Company was using almost all of the management accounting procedures for planning and controlling purposes, known until the 1980s. As with the USA, according to Fleischman & Tyson (2006), the use of cost accounting information was first used in a managerial and purposeful fashion in the New England textile industry in the UK during the 1800s. Similar to other countries such as United States, Canada and Great Britain, trade associations in several industries in France were using uniform costing systems from the end of the nineteenth century to the 1940s (Lemarchand, 2002). Bourguignon, Malleret & Nørreklit (2004) report that 'tableau de bord' as a performance measurement technique that focuses on both financial and non-financial information was used in France during the first half of the twentieth century.

One of important management accounting innovations that was developed in the first half of the 20th century was called Grenzplankostenrechnung (GPK). GPK is a German management accounting technique, developed in the late 1940s and 1950s, proposed to provide reliable and accurate information on products and services' costs. GPK has also been referred to as Marginal Planned Cost Accounting, Flexible Analytic, Cost Planning and Accounting, and Flexible Margin Costing (Friedl, 2005; Sharman, 2003). Georges Perrin method (GPM) is another old management accounting technique created (in French) by Georges Perrin (1891–1958), who believed GPM could meet the emerging needs for cost calculations for the periods after World War Two (Alcouffe, Berland, & Levant, 2008).

However, the growing scope and speed of technological changes and global competitions in 1980s, has resulted in higher demand for more accurate and advanced managerial techniques to provide organisations with more accurate information for the purpose of planning and control decisions (D Askarany & Yazdifar, 2012; D Askarany, Yazdifar, & Askary, 2010; R. S. Kaplan, 1984). That is why Kaplan (1994) suggests that the 1980s and 1990s have seen a revolution in terms of innovations in management accounting theory and procedures. Echoing this observation, Björnenak & Olson (1999) suggest that during the 1980s and 1990s there has been a rich supply of management accounting innovations in the literature.

According to Askarany (2012) and Hagerty (1997)9), the major developments of managerial techniques and practices since the 1950s can be listed as follows:

- **The 1950s:** Discounted cash flows, Total quality management, Cusum charts and Optimum transfer pricing.
- **The 1960s:** Computer technology, Opportunity cost budgeting, Zero-based budgeting, Decision trees, Critical path

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