

# Innovation of Management Accounting Practices and Techniques

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## INTRODUCTION

This article 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. 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

The main focus of this article is on management accounting practices and techniques rather than managerial tools. There is no universal consensus with respect to what techniques constitute management accounting practice and innovations (Cadez & Guilding, 2008). It is argued that many management accounting techniques 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 article 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 article 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 article. Rogers (2003) defines an innovation as an idea, practice, or object that is perceived as new by an individual or other 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 the first persuasion, or decision to adopt. Wolfe (1994) explains diffusion of an 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 article.

## LITERATURE REVIEW

Johnson and Kaplan (1987) claim that most of current managerial techniques have been developed during the nineteenth century and the first quarter of the twentieth

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century (p. 12). 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 and 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 and 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, and Nørreklit (2004) report that 'tableau de bord' as a performance measurement technique which focuses on both financial and non-financial information was used in France during the first half of twentieth century.

One of important management accounting innovations which was developed in the first half of the 20<sup>th</sup> 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 (Askarany & Yazdifar, 2012; Askarany, Yazdifar, & Askary, 2010; 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), Hagerty (1997) and Smith (1999), the major developments of managerial techniques and practices since the 1950s can be listed as follows:

- **1950s:** Discounted cash flows, Total quality management, Cusum charts and Optimum transfer pricing.
- **1960s:** Computer technology, Opportunity cost budgeting, Zero-based budgeting, Decision trees, Critical path scheduling, and Management by objectives. We can refer to computerized or electronic spreadsheets for business accounting as an important tool developed in the 1960s (Mattessich, 1961). However, electronic spreadsheets made their first appearance for personal computers in 1979 in the form of VisiCalc, as an application to help with accounting tasks (Baker & Sugden, 2007, p. 1). Fleischman and Tyson (2006) further consider the 1950s and 1960s as the advent of responsibility accounting with an emphasis on cost control via standard costs.
- **1970s:** Information economics and agency theory, Just-in-time scheduling, Strategic business units, Experience curves, portfolio management, Materials resource planning, Diversification, Matrix organisation and Product repositioning. VisiCalc Spreadsheet can be considered as an important tool developed in the 1970s (Baker & Sugden, 2007; Power, 2004).

Fleischman & Tyson (2006) argue that Johnson and Kaplan were badly misguided in claiming that nearly most of current management accounting techniques and practices have been developed before 1925. They emphasize that Johnson and Kaplan failed to appreciate the value and the importance of new developments that had occurred after 1925 and before 1970s. Fleischman

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