# Budgeting practices and performance in small healthcare businesses ☆

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### A B S T R A C T

We present evidence linking primary healthcare business characteristics, budgeting practices, and business performance. Based on a sample of 144 responses from a survey of members of the Australian Association of Practice Managers (AAPM), we find that factors identified by contingency-based research are useful for predicting a business's budgeting practices. Specifically, we find the adoption of written budgets to be related to size and structure, and for businesses using written budgets, the extent of use is related to business structure, strategy and perceived environmental uncertainty. Finally, we find evidence of a relationship between budgeting practice and performance. Here, we initially find a business's performance to be positively associated with the use of written budgets. More refined tests of the "fit" between business contingency factors and extent of operating budget use then provide evidence of a positive association between the extent of "fit" and performance.

## 1. Introduction

This study investigates the relationship between contextual factors identified from contingency-based research, the adoption and extent of use of budgets, and business performance within the Australian primary healthcare setting.[1] We focus on budgets because they are considered to be one of the main management control systems (MCS) in organisations, have been found to be the earliest MCS that a business adopts, and continue to receive significant attention in the research literature and in teaching material (e.g., Davila and Foster, 2005, 2007; Sandino, 2007). We select the Australian primary healthcare sector as our experimental setting both because of its importance socially and economically, and because it is likely to be comprised of businesses that vary broadly in their budgeting practices.

Contingency-based research proposes that there is no single MCS suitable for all businesses. Instead, the suitability of a particular MCS is argued to be contingent upon characteristics of a business including its size, strategy, structure, and also management's perceptions of the uncertainty of the environment within which the business operates. We begin by examining the relationship between a business's budgeting practices and these four contextual factors. In so doing, we view the development of a budgeting practice as consisting of two stages, the initial decision regarding adoption and the subsequent decision regarding extent of use. Here, the term 'adoption' reflects the decision by a business to use a formal process to project its future

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[1] Primary healthcare is the initial care of a patient as an outpatient excluding diagnostic testing; tertiary healthcare is that provided in a hospital setting.

financial performance (Davila and Foster, 2005). Alternatively, the term 'extent of use' refers to both the number of different types of budgets the business uses and the frequency of their use. In our analysis, we develop arguments for, and investigate, these two stages separately.

We then turn to consider the relationship between a business's budgeting practice and its performance. The relative "fit" of the business's MCS with its contingency factors is argued to impact on performance, with performance increasing with the degree of "fit" (Chenhall, 2003). Thus, ceterus paribus, businesses using a practice which does not "fit", whether by "over-budgeting" or "under-budgeting", are expected to experience weaker performance. We argue that not all of our sample businesses are likely to exhibit "best budgeting practice" because of the difficulties associated with identifying and implementing best practice, and the discontinuous nature of upgrades (Luft, 1997). We examine the relation between "fit" and performance using the method proposed by Ittner and Larcker (2001) and classified as a Cartesian/Contingency approach (Gerdin and Greve, 2004). Degree of "fit" is measured as the difference between the extent of budget use and that predicted by the business's contingency factors. This approach assumes that at any point, not all businesses will in fact have implemented their optimal practice.

To conduct our investigation, a written survey of 988 members of the Australian Association of Practice Managers (AAPM) was undertaken. In brief, we find that larger, more decentralised healthcare businesses are more likely to adopt written budgets. Further, for the subset of businesses that use written budgets, we find that the extent of budget use is positively associated with structure (decentralisation) and strategy (cost leadership), and negatively associated with perceived environmental uncertainty (dynamism). Finally, we document a relationship between choice of budgeting practice and performance. Here, we initially find performance to be positively associated with the use of written budgets. More refined tests then provide evidence of a positive association between the degree of "fit" and performance.

Our study makes several contributions. First, we present evidence that contingency factors do indeed provide insights into both the adoption of budgets and the extent of their use for our sample of small Australian primary healthcare businesses. Interestingly, the results suggest that size and structure capture the business's initial decision to adopt a formal budgeting practice. However, once a business has adopted a formal practice, strategy, structure, and perceived environmental uncertainty appear to be the primary determinants underlying the subsequent decision regarding the extent of budget use. We also present evidence that the "fit" of our sample business's budgeting practices is associated with performance. To our knowledge, there has been relatively little empirical evidence on this relationship documented in the literature to date.

Second, contingency-based research has predominantly been conducted in the large business sector. We extend this work by examining a small business setting. We argue that our setting has the advantage of allowing for an examination not only of the extent of budget use but also of the initial decision to adopt a budgeting practice. In con-

junction, it also provides an opportunity to examine more closely the different underlying theoretical constructs of size that the two most commonly used proxies, gross fees and full-time equivalent employees, may be capturing. Finally, from a practical perspective the healthcare sector is under continuing pressure to increase its efficiency. This study contributes by examining the contexts in which the use of budgets is associated with enhanced performance in primary healthcare. The results should be of benefit to both practitioners and those who advise practitioners on MCS design.

The remainder of this paper is structured as follows: Section 2 presents background material; Section 3 describes our experimental setting; Section 4 presents the hypotheses, Section 5 the method and Section 6 the results; and Section 7 provides a summary and conclusions.

## 2. Background

MCS have been defined as all devices and systems that businesses use "to ensure that the behaviours and decisions of their employees are consistent with the organisation's objectives and strategies" (Malmi and Brown, 2008). We focus on a business's decision regarding its budgeting practices. Budgets are considered an MCS because they can influence the behaviours and decisions of employees by translating a business's objectives into plans for action, communicating the objectives, and providing a benchmark against which to assess performance. We view budgets as both an important and appropriate focus given that they are considered to be one of the main MCS in organisations, have been found to be the earliest system adopted in start-up businesses, and continue to receive significant attention in the research literature and in teaching material (Davila and Foster, 2005, 2007; Sandino, 2007).

Within the MCS literature, the term 'budgeting' is used to refer to a broad range of topics (see Chapman et al. (2007) for a review). In this study, we define a budget as a forward looking set of numbers which projects the future financial performance of a business, and which is useful for evaluating the financial viability of the business's chosen strategy or deciding whether changes to the overall plan are required (Davila and Foster, 2005). Budgets have been identified as playing a number of roles which include making goals explicit, coding learning, facilitating co-ordination, promoting accountability, facilitating control, and contracting with external parties (Davila et al., 2009). Benefits of budgeting include increasing efficiency through planning and co-ordination, supporting both control and learning through the comparison of actual results with plans, and more globally "the ability to weave together all the disparate threads of an organisation into a comprehensive plan that serves many purposes" (Hansen and Otley, 2003).

Given these various roles and potential benefits, one might expect all businesses to adopt a formal budgeting practice. In fact, this view appears to underlie much of the empirical MCS research predominantly conducted in a large business setting, as it is often assumed that large businesses will already have formal MCS that can be readily examined (Chenhall, 2003). Here, the focus has typically