



The interplay between cost accounting knowledge and presentation formats in cost-based decision-making

Eddy Cardinaels *

Tilburg University, Department of Accountancy, P.O. Box 90153, 5000 LE Tilburg, The Netherlands

Abstract

Most studies on cost-based decision-making examine the profit impact of cost reports that rely on different methods to allocate costs. In practice, firms' cost reports often employ the same cost allocation method with subtle variations in the way that the cost data are presented. This paper examines experimentally the profit impact of a cost report's presentation format in relation to a decision maker's level of cost accounting knowledge. Using a customer profitability report prepared using activity-based costing and presented in either a tabular or a graphical format, participants analyze a complex pricing and resource allocation task that affects firm profitability. The results suggest a strong relation between presentation format and cost accounting knowledge. Specifically, decision makers with a low level of cost accounting knowledge attain higher profits when they use a graphical format in comparison to a tabular format. More surprisingly, graphs (versus tables) have an adverse effect on profits for users with a high level of cost knowledge. This result has broad implications: in order to facilitate the decisions of a variety of users of accounting data (e.g. managers, external investors, etc.), firms may need to adapt the presentation format of their accounting data to the level of accounting sophistication of the users.

© 2007 Elsevier Ltd. All rights reserved.

Introduction

The performance effects of different types of cost reports (variable versus absorption costing, volume-based versus activity-based costing) in relation to a number of contextual variables is the key focus of several previous studies on cost-

based decision-making (e.g. Briers, Chow, Hwang, & Luckett, 1999; Drake, Haka, & Ravenscroft, 1999; Gupta & King, 1997; Waller, Shapiro, & Sevcik, 1999). This paper presents the results of an experiment conducted to study how different representations of identical underlying cost data affect cost-based decision-making and firm profitability. Specifically, I find unique evidence suggesting that the profit impact of tabular versus graphical representations of activity-based costing

* Tel.: +31 13 4668231; fax: +31 13 4668001.
E-mail address: e.cardinaels@uvt.nl

(ABC) data is dependent upon the accounting sophistication of the user, i.e. his or her level of cost accounting knowledge.

Studying the joint effects of presentation format and a decision maker's level of accounting knowledge is important for several reasons. First, different managers clearly have different levels of accounting knowledge (Dearman & Shields, 2001; Stone, Hunton, & Wier, 2000). Firms' information systems provide managers with reports that range from traditional tabular formats to graphical displays (So & Smith, 2002; Sullivan, 1988). Many managers use elaborate cost reports for their daily decisions. Others encourage the use of "easy-to-understand" graphs (Mooney, Rogers, & Wright, 2000; Remus, 1987; Yates, 1985) in the belief that a graphical representation (versus a tabular format) makes cost data accessible to all members of the firm, irrespective of their level of accounting knowledge. In spite of evidence of differential managerial knowledge, however, the extant literature does not indicate how managerial decision-making and, in turn, firm profits are affected (Sprinkle, 2003) when information is presented in different report formats to decision makers with different levels of accounting knowledge (Haynes & Kachelmeier, 1998; Libby, 1981).

Second, recent studies in accounting only address the separate effects of expertise and report format (Sprinkle, 2003), though such studies find that both affect cost-based decision-making. For instance, Dearman and Shields (2001) show that the level of a manager's cost accounting knowledge is linked with the ability to correct for volume-based cost bias, and Bucheit (2003) shows that investment decisions change when cost reports explicitly contain the cost of capacity (compared to reports that do not). There is also some evidence that suggests the interaction of the two variables. For instance, Vera-Muñoz, Kinney, and Bonner (2001) show that the impact of alternative task representations depends upon the decision maker's expertise. However, they employ only tabular reports based on either historical earnings or historical cash flows. Thus, the impact of tabular versus graphical representation of identical data in relation to a decision maker's knowledge is an open question.

Finally, although there is a strong belief that decision makers should benefit from graphical representation (Harvey & Bolger, 1996), research that compares the relative impact of graphical versus tabular formats remains inconclusive (Vessey, 1991). In an attempt to resolve the controversy, a few studies suggest looking at individual differences among the users of information (Amer, 1991; Chandra & Krovi, 1999; Ganzach, 1993). The current study sheds light on this debate by testing whether accounting knowledge as a managerial characteristic helps to explain when certain report formats are associated with stronger performance than others in a cost-based decision task.

To investigate these joint considerations, I conduct an experiment with presentation format as the between subjects factor. I measure a participant's level of accounting knowledge, in addition to some common control variables, using research instruments suggested in prior studies (Bonner & Lewis, 1990; Cloyd, 1997; Dearman & Shields, 2005). I create a complex task in which the participant's realized profit depends upon both price and resource allocation decisions for a heterogeneous set of customers. All participants receive ABC-driven customer profitability data, presented in either a tabular or a graphical format (multicolored bar charts and trend charts). I measure profit performance objectively as the difference between a participant's realized profit and the maximum profit that could be achieved in performing the task.

After controlling for differences in ability and work experience, I find evidence of an effect reversal across knowledge levels: decision makers with a low level of cost accounting knowledge perform better with a graphical ABC format, and decision makers with a high level of cost knowledge obtain superior profits with a tabular ABC format. Further evidence indicates that graphical formats tend to reduce task complexity for a low-knowledge decision maker, whereas tables support the information search of a more knowledgeable user. This result provides important theoretical and practical insights, suggesting that (1) cost accounting knowledge is a crucial managerial characteristic that should be taken into account when a firm presents cost reports to a decision maker, and (2) managerial cost accounting knowledge and data representation

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات