Management accounting and integrated information systems: A literature review

Anders Rom *, Carsten Rohde

Department of Accounting and Auditing, Copenhagen Business School, Denmark

Abstract

In order to further advance research within management accounting and integrated information systems (IIS), an understanding of what research has already been done and what research is needed is of particular importance. The purpose of this paper is to uncover, classify and interpret current research within management accounting and IIS. This is done partly to identify research gaps and propose directions for future research and partly to guide researchers and practitioners investigating and making decisions on how to better synthesise the two areas. Based on the strengths of existing frameworks covering elements of management accounting and IIS a new and more comprehensive theoretical framework is developed. This is used as a basis for classifying and presentation of the reviewed literature in structured form. The outcome of the review is an identification of research gaps and a proposal of research opportunities within different research paradigms and with the use of different methods.
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1. Introduction

That information systems are able to deliver support for management accounting is not a new idea. It is argued, on the other hand, that the first use of information systems was in relation to accounting (Brady et al., 2001, p. 18; Shields, 2001, p. 3). It was the purpose of the first information systems to automate the processes of, for example, posting transactions to journals and sorting the transactions according to the chart of accounts of the general ledger. Regardless of this, however,

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 * Corresponding author.
  E-mail addresses: ar.acc@cbs.dk (A. Rom), cr.acc@cbs.dk (C. Rohde).

research within management accounting and information systems is coming alive again with the advent of integrated information systems such as enterprise resource planning (ERP) systems. Previously, each function within an organisation had its own information system that operated separately from the information systems of the other organisational functions (Davenport, 1998). With the introduction and wide-spread adoption of so-called ERP systems in the 1990s, new potential for information systems to support management accounting have emerged.

Research on management accounting and integrated information systems (IIS) has evolved across a number of different research streams. Some research streams put heavier emphasis on the management accounting side, while other research streams put emphasis on the information systems side. Likewise, different research streams approach the topic from different perspectives. In combination this research provides a growing body of knowledge concerning the relationship between management accounting and IIS. In order to further advance research, an understanding of the extant research and opportunities for future research are of particular importance.

The purpose of this paper is to uncover, classify and interpret current research within management accounting and IIS. This is done in part to identify research gaps and propose directions for future research and in part to guide researchers and practitioners investigating and making decisions on how to better synthesise the two areas.

This paper is organised as follows. The method used for the literature review is discussed in Section 2. The theoretical framework for synthesising research within the field of interest is developed in Section 3. The literature review in Section 4 is centred on concepts and their relationships within each relationship i) the theoretical logic is discussed, ii) the research findings are reported and iii) the applied research method and paradigm are identified. Finally, in Section 5 directions for future research are suggested and conclusions are drawn in Section 6.

2. The method of the literature review

In order to identify all relevant literature within the topic of management accounting and integrated information systems the recommendations by Webster and Watson (2002) were followed. The literature search included the following steps:

1. Keyword search using the Business Source Complete database
2. Review of relevant journals (see list in Appendix A)
3. Review of relevant conferences (see list in Appendix B)
4. Review of references of publications identified in step 1, 2 and 3 (going backward)
5. Identification of publications citing the key publications (going forward)

It is the purpose of this literature review to identify theories and concepts within the research field of management accounting and information systems. Thus, saturation of the publication search was researched when new publications did not seem to add new theories or concepts (Webster and Watson, 2002). Thus, not all publications on the topic of management accounting and integrated information systems are included in the literature review.

Several methods for retrieval of relevant literature were used. The purpose of the method triangulation was to ensure that no relevant publication was missed during the literature search. The triangulation of search methods seemed to be fruitful as new publications were found during each step.

The literature review is concept-centric rather than author-centric (Webster and Watson, 2002) or paradigm-centric (Burrell and Morgan, 1979; Hopper and Powell, 1985; Puxty, 1993; Ryan