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doctoral dissertations, 1945-2015**

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Abstract

Purpose – Several scholars have recently highlighted the narrowness of accounting research regarding it as a threat to scholarly developments in the field. The objective of this study was to chart progress in management accounting research using a sample of doctoral dissertations published in Finland. In particular, the study examines the range and diversity of research strategic choices in Finnish dissertations over time, including the topics and methodological and theoretical approaches chosen. We also briefly compare findings over time and with other progress studies.

Design/methodology/approach – A longitudinal historical investigation was selected. All of the 80 management accounting doctoral dissertations published in Finnish business schools and departments during 1945-2015 were analysed.

Findings – The findings reveal that an expansion of doctoral education has led to an increasing diversity of research strategic choices in Finland. Different issues have been of interest at different times, so it has been possible to cover a wide range of cost, management accounting, and other topics, and to use different methodological and theoretical approaches over time. Consequently, management accounting has become a rich and multifaceted field of scientific research.

Research limitations/implications – While our analysis is limited to doctoral research in Finland, the results should be relevant in advancing our understanding of the development of management accounting research.

Practical implications – Overall, the findings support the view that there have been, and continue to be, many ways to conduct innovative research in the field of management accounting.

Social implications – Dissertation research in this field has been extensive and vital enough to educate new generations of academics, guarantee continuity of the subject as an academic discipline, and make management accounting a significant academic field of research today.

Originality/value – The paper contributes to current research on management accounting change via analysis of a sample of doctoral dissertations.

Keywords – Accounting change, Accounting history, Management Accounting, Research methodology, Theoretical approaches.

1. Introduction

Several scholars have recently highlighted the narrowness of accounting research regarding it as a threat to scholarly developments in the field (Lukka, 2010; Malmi, 2010; Merchant, 2010; Modell, 2010; Scapens and Bromwich, 2010a,b). A key concern has been that research conducted using theoretical and methodological approaches that are too narrow might lead to uniform publications with marginal contributions (Lukka, 2010, 110). Merchant (2010, 116) suggested that overemphasis on so-called mainstream research could close the door on many potentially important research undertakings that use paradigms other than mainstream ones at great cost to business schools themselves, academia in general and society. The multi-paradigm approach welcoming a broad range of research of all kinds while pursuing creative and innovative ideas has been viewed as a more desirable alternative (Lukka, 2010, 113; Scapens and Bromwich, 2010b, 284). The aim of this study is to chart progress in management accounting research using a sample of doctoral dissertations published in Finland. In particular, the study examines the range and diversity of research strategic choices in Finnish dissertations over time, including the topics and methodological and theoretical approaches chosen. We also briefly compare findings over time and with other progress studies.

As management accounting research has been viewed as doing well in Europe, where the idea of multi-paradigm accounting research "is appreciated, or at least tolerated" (Lukka, 2010; 113), it is of interest to add knowledge regarding progress in management accounting research in Finland as an example of an European country. Following Näsi and Näsi (1985), Kihn and Näsi (2010) and Zachariassen and Arlbjørn (2010), we focus on doctoral dissertations, as this perspective adds knowledge regarding research and doctoral training, for which research designs are carefully considered and new theories and methods are introduced by doctoral students on the basis of their course work (Shields, 1997, 20). As the doctoral students are the future scholars and lecturers in the management accounting field, their dissertations also reflect future research interests in this field. Since the first Finnish management accounting doctoral dissertation on management accounting was published already as early as in 1945, we can now analyse the first seven decades of such research using a sample of 80 dissertations, all of which have been published as books.

This study contributes to literature by revealing that the expansion of doctoral education has led to an increasing diversity of research strategic choices in Finland. Because the number of Finnish dissertations in this field has grown, our findings will help in assessing to what extent and how the expansion of doctoral research has led to an extension of research strategic choices (i.e., topics and methodological and theoretical approaches). Besides providing empirical evidence for a sample of Finnish doctoral dissertations, our results should also further our understanding of progress in management accounting research.

The remainder of the paper is organized as follows. Section 2 reviews previous literature on the development of management accounting research. Section 3 introduces the classifications used in the empirical analysis. Section 4 describes the data and research methods. Section 5 presents the data analysed with regard to research topics and methodological and theoretical approaches. Section 6 presents a synthesis of the key results and Section 7 concludes.

2. Literature review

As the field of management accounting has changed (Scapens, 2006, 329) and expanded (Hesford et al. 2007, 3), there has been a growing interest in progress in management accounting research. To date, the development of management accounting research has been examined in many ways using different timeframes and scopes (Zawawi and Hoque, 2010, 505). First, a large body of literature analyses particular developments, such as the development of cost management (Young and Selto, 1991), management control (Otley et al., 1995), performance measurement (Ittner and Larcker, 1998) and management accounting innovations (Zawawi and Hoque, 2010). Second, others have focused on certain geographic areas or countries (Chapters 18-20 Management Accounting around the world in Chapman et al. (Eds.), 2007; Hopwood and Schreuder, 1984; Scapens, 2006). In line with our study, the third stream of research has described and compared the development of management accounting research adding knowledge regarding what has been studied and how. These studies have presented findings from the past decades as follows:

First, the studies by Scapens (2006), Hesford et al. (2007), Shields (1997), Lindquist and Smith (2009), and Scapens and Bromwich (2001 and 2010b) have addressed the progress of management accounting research from the perspective of certain Anglo-American countries and/or journals. Scapens (2006) analysed changes in management accounting research and

practice in the UK during a 35-year period beginning in the early 1970s. At the start of this period, following work by US researchers, UK management accounting research was primarily concerned with sophisticated quantitative models for management decision-making, especially decision-making under uncertainty. These models provided normative solutions to such management accounting problems that the researchers believed were faced by management accounting practitioners and business decision-makers. The research was grounded in neoclassical economic decision models and conducted with the aid of mathematical techniques (Scapens, 2006, 330).

At the start of the 1980s, UK management accounting researchers started taking a serious interest in what management accounting practice is actually like, and recognized that there was a gap between management accounting theory and practice. From about that time, researchers in the UK began to first describe, and later explain, the nature of management accounting practice with the aid of mail surveys, fieldwork, and in-depth longitudinal case studies. In addition to descriptive studies of management accounting practice, the 1980s and 1990s also saw the emergence of alternative research perspectives emphasising the need to study management accounting within its broader social, political and organizational contexts. In the early 1990s, new approaches to cost management, such as activity-based costing, target costing and throughput accounting, were outlined. The importance of strategic management accounting (SMA) and the need to extend management accounting boundaries to encompass supply chains and the like were emphasised (see Bromwich and Bhimani 1989 and 1994; Scapens 2006, 330-333).

The use of the alternative approaches resulted in considerable diversity in methodological approaches in UK management accounting research. Some researchers continued to use traditional economic approaches and a positivist research methodology while others adopted interpretive and critical research traditions to understand the world or to add an element of social critique to their research agenda. Whereas the vast majority of researchers in the USA were in the first group (doing traditional economic-oriented research) and the other two groups were both very small, in the UK there were substantial numbers of researchers in all three groups by 2005 (Scapens, 2006, 332).

In another study, Hesford et al. (2007) addressed the topics, methods and source disciplines of management accounting studies published in ten Anglo-American journals during 1981-2000. Their data also suggested that this was a period of change for the field of management accounting during which new topics were investigated, new journals came into existence, and different research methods were emphasised. Their analysis revealed a clear shift over time from budgeting and organizational control to cost allocation and performance measurement and evaluation topics. Overall, approximately 70% of the articles focused on control, 20% on cost, and 10% on a range of other topics. Regarding research methods, Hesford et al. (2007) observed that analytical, survey, and experimental research methods and literature frameworks remain dominant over time, but their use slightly decreased (particularly the use of frameworks and experiments). The use of archival, case, and field research methods, by contrast, increased. Regarding source disciplines, economics (43%) was the dominant source discipline on which management accounting research relied, followed by sociology (40%) and psychology (15%). The reliance on psychology as a source discipline in management accounting decreased over time, whereas the reliance on economics and sociology increased.

Shields (1997) reviewed the state of research in management accounting as evidenced by 152 articles published by North American scholars during 1990-1997. Over half of the studies had focused on control and nearly one third on cost. His findings also suggested a slow evolution of the new topics published (e.g., activity-based costing, cost management, cost drivers, nonfinancial performance measures) at that time with less introduction of new theoretical approaches and research methods. In line with Hesford et al (2007), topics had been studied using economics, psychology, or sociology approaches or derivatives thereof (organizational behavior, production and operations management and strategic management). Regarding research methods, most studies applied analytic, survey, archival or laboratory experimentation methods. The dominant topics, theoretical approaches and research methods were hence rather similar to those identified by Hesford et al. (2007) study.

Lindquist and Smith (2009) analysed the content of articles published in the *Journal of Management Accounting Research (JMAR)* during 1989-2008. Their findings indicated a significant increase in articles on management control (53%), the most common research topic, and a decline in papers on cost accounting (24%) and other management accounting (24%) topics. Within management control, they observed an increase in research on

performance measurement and evaluation and budgeting, and a decline in research on organizational control, capital budgeting and international control. The predominant research method for these articles was analytic, followed by survey, archival, experimental and conceptual frameworks (see also Hesford et al. 2007; Shields, 1997). The research methods that experienced the greatest growth were archival, analytical and review approaches; methods that experienced the greatest decline were conceptual frameworks, field research and case studies. The most popular source discipline among *JMAR* authors was economics (see also Hesford et al. 2007; Shields, 1997), followed by production and operations management (POM), psychology, sociology and history. Economics and sociology were the source disciplines that experienced the greatest increase (see also Hesford et al., 2007), while the other source disciplines decreased. These findings suggest that management accounting research published in the USA has continued along a rather traditional route and extended previous work.

In their studies, Scapens and Bromwich (2001 and 2010b) described and compared the range and diversity of articles published in *Management Accounting Research (MAR)* in terms of subjects, topics, research settings, methods and theories during 1990-2009. While there was no major shift in the topics studied during this time, some changes were identified. There was an increase in the number of papers studying management accounting and control systems, various "cutting- edge" techniques (e.g., managing intellectual capital and tangibles, knowledge management, balanced scorecards, benchmarking, lean accounting and world-class manufacturing) and new topics (e.g., inter-organizational management control, governance and risk management). A slight decline was identified in papers dealing with cost accounting and some traditional management accounting topics (e.g., capital budgeting; budgeting, standard costing and variance analysis and management accounting practices) was identified. With regard to research methods, Scapens and Bromwich (2010b) observed an increase in the use of case studies and analytic mathematical studies, and a decline in the use of other field studies, surveys and historical analyses. Interest in so-called applied theories¹ and economics was high during the 1990s, but declined during the 2000s, when institutional and contingency theories became most common. Overall, their findings indicated considerable diversity in topics, research methods and disciplines.

¹ According to Scapens and Bromwich (2010b, 181) "applied" theories refer to papers examining "various aspects of management accounting techniques, systems and practices without being grounded in an explicit, or even a clearly discernable implicit, theoretical framework."

Second, a stream of prior studies has analysed the development of management accounting research in the Scandinavian and Nordic countries. Jönsson and Mouritsen (2005) provided a background to the development of academic accounting in Scandinavian and Nordic countries. According to their review, it was in newly founded business schools (Copenhagen, Helsinki and Stockholm at the beginning of the 20th century, and later Gothenburg and Bergen) rather than universities that business became established as an education and much later as a research area. The development of business schools was a particular phenomenon in Scandinavian countries, and made their relationship with practice a strong one. Consequently, researchers have been interested in collaborating with organizations, and research has often been case-study-based with frequent concerns about relevance and business-orientation (Jönsson and Mouritsen, 2005, 7-9).

Näsi and Rohde (2007) analysed how management accounting as an academic subject in the Nordic countries of Denmark, Finland, Norway and Sweden has been influenced by developments in other countries. Between the two World Wars, measures taken to develop cost accounting in the Nordic countries were rooted in the German tradition. After the World War Two, cost accounting grew into management accounting under the influence of US literature and experiences. Ideas even travelled between the Nordic countries as academics gave presentations and their articles were published in journals in their neighboring countries. At the beginning, management accounting research involved conceptual analysis, offering normative guidance and calculation models. Since the 1980s, a large body of research can be characterized as work seeking to interpret the various tasks and roles of management accounting and accountants in their social and organizational contexts by means of a hermeneutic, interpretive approach (see Näsi and Rohde, 2007, 1112-1113; Näsi and Näsi, 1997 and 2013). The 1980s and 1990s were hence also periods of change in the Nordic countries.

Kihn and Näsi (2010) described and analysed the topics and methodological approaches of 42 doctoral dissertations on management accounting published in Finland during 1990-2009. Kihn and Näsi found significantly higher interest in other topic areas (49%), including management accounting innovations, and a slightly higher interest in cost accounting (14%) than Hesford et al. (2007) did, but a lower emphasis on control (37%). A dramatic shift was

seen in research on control, which had shifted from budgeting and capital budgeting to performance measurement and evaluation (see also Hesford et al., 2007; Lindqvist and Smith, 2009), and to organizational and international control. With regard to methodological approaches, the results suggested that empirical and primarily descriptive (rather than normative) approaches were extremely popular in the 1990s and 2000s. Case studies – consisting mostly of action-oriented and constructive case studies to a lesser extent – formed the mainstream approach (see also Järvenpää and Pellinen, 2005; Näsi and Rohde, 2007; Näsi and Näsi, 1997 and 2013). Action-oriented research was most popular in the 2000s, but nomothetic and constructive research also increased slightly. While constructive research was used for the first time, as a new approach, and concept analytic approach was used to some extent in all studies, concept and decision- analytic approaches were no longer used as primary approaches.

In conclusion, there has been a growing interest in research strategic progress in management accounting research internationally (Hesford et al. 2007; Lindqvist and Smith, 2009; Scapens and Bromwich, 2001 and 2010b; Shields, 1997; Zawawi and Hoque, 2010) and in Scandinavian and Nordic countries (Jönsson and Mouritsen, 2005; Näsi and Rohde, 2007) including Finland (Näsi and Näsi, 1997 and 2013; Kihn and Näsi, 2010). While most of the studies analysed developments over a period of approximately 10-20 years, Scapens (2006), Jönsson and Mouritsen (2005), Näsi and Rohde (2007) covered longer periods of time in their studies. Determination of the progress made in Finland over a long period of time to date necessitates further research that is addressed next.

3. Classifying management accounting research

3.1 Classifying management accounting research topics

In this study, we use a classification of management accounting research topics that is based on management accounting doctrine (Atkinson, Kaplan, Matsumur and Young, 2007; Bhimani, Horngren, Datar and Rajan, 2015) and research (Hesford et al., 2007; Shields, 1997). First, we distinguish between cost accounting and management control in classifying management accounting research topics. *Cost accounting* refers to both traditional cost

allocations and activity-based costing, cost variances, the use of cost information for decision-making (Hesford et al., 2007) and strategic costing such as attribute costing, life-cycle costing, quality costing, target costing and value-chain costing (Cadez and Guilding, 2008).

Management control includes operating budgeting, capital budgeting and investments, performance measurement and evaluation and organizational control (see Hesford et al., 2007, 7 for further sub-categories). Following Hesford et al. (2007), budgeting research consists of studies on budget targets, budget participation and budget-related dysfunctional behaviours. Capital budgeting and investments research investigates investment decisions and their follow-up. Performance measurement and evaluation involves the study of financial and nonfinancial performance measurement and incentive systems, as well as their consequences for organizational behaviour and performance. Organizational control studies are conducted on management and organizational control systems. (Hesford et al., 2007).

In addition to cost accounting and management control, we have a third category in our classification: *other management accounting topics*. This includes decision-making, profitability and pricing (including transfer pricing), accounting information systems (AIS), management accounting history and change and SMA. AIS here is understood to cover research on information and communication technologies and computerized and electronic accounting information systems such as the management information systems, decision support systems and enterprise resource planning (ERP) systems. Research on management accounting history and change includes historical developments and change processes in the field of management accounting. The focus of research can be, for example, on economic, technical, behavioral, social or political aspects of change.

SMA includes management accounting related to strategy development and monitoring (Simmonds, 1981), strategic decisions (Wilson, 1990; Hoque, 2001) and SMA techniques (Hoque, 2001). While SMA techniques are found in all three of our main categories (i.e., cost accounting, management control and other management accounting topics), we include the following SMA techniques in the category other management accounting topics: benchmarking analysis, competitor and customer accounting, total quality management, value

chain analysis (Hoque 2001, viii-ix), open book accounting, supply chain management and the theory of constraints, (Kihn and Näsi, 2010, 46).²

3.2 *Classifying methodological approaches*

While various two-fold classifications or dichotomies exist for methodological approaches in research (quantitative and qualitative; theoretical and empirical; descriptive and normative; subjective and objective), we apply a unique classification system for which different versions have been introduced to management and accounting research, first in Finland by Neilimo and Näsi (1980), and subsequently in international publications by Kasanen et al. (1993), Lukka et al. (1984) and Näsi and Näsi (2013). The clear advantages of this classification system are its scientific and philosophical foundations and its classification of scientific research into just five different approaches: conceptual, nomothetic, decision-oriented, action-oriented and constructive. The basic underlying difference between these approaches is the division between the Galileian and Aristotelian philosophies of science. The first refers to a ‘causal explanation’ manner of doing research, and the latter to an ‘understanding’ way. Figure 1 summarizes the main characteristics of each approach.

[Place Figure 1 about here]

The conceptual (*or concept analytical*) approach appears first in Fig. 1. It follows Aristotelian tradition and is used in philosophy. This approach employs reasoning and argumentation. Although all methodological approaches may use conceptual analysis to some extent, the conceptual approach aims to develop new concepts and conceptual systems – consisting of mental and linguistic systems – through conceptual analysis and synthesis (Näsi, 1980, Neilimo and Näsi, 1980).

The nomothetic research methodology comes second in Fig. 1. It follows the Galileian tradition; hence, its ideals are close to those of the natural sciences. The nomothetic approach is positivist-empirical and emphasises the need for large samples of data. Causality,

² This classification system of research topics can be seen in the first column of Table 1.

explanation and verification are emphasised, as well as testing hypotheses and finding evidence. The key characteristics include discovering invariances, generalizations, patterns, recurrences and compliance with laws (Neilimo and Näsi, 1980; Näsi, 1980), or at least tendencies. In many disciplines, a nomothetic approach is deemed traditional.

The *decision-oriented* (or decision-analytical) approach comes third in Fig. 1. It is likewise rooted in positivism, but it has more specific goals than the nomothetic approach. It usually seeks normative rules to help management run a company, most commonly by building different mathematical decision-making models. Focus is in explicit problem solving using logic and maintaining close relations with management science and operations research (Näsi, 1980; Neilimo and Näsi, 1980).

In Fig. 1, the *action-oriented* (or action-analytical) approach comes fourth, being relatively new but currently applied in many subcategories of business research. The action-oriented approach involves pursuing a better understanding of human action for a single case or a few cases. In other words, it follows the Aristotelian tradition of research (Neilimo and Näsi, 1980). It includes, for example, action research, clinical methods, comparative analysis, historical research and practical syllogisms (Näsi, 1980, 8-9). The human core of an organization is emphasised in an attempt to produce not just understanding but also conceptual systems, frameworks and languages. Based on the Lillis and Mundy (2005) classification, our categorization of action-oriented studies includes single and multiple case studies and cross-sectional field studies to the extent that they include action-oriented elements.³ Empirical intervention and the role of theory vary in action-oriented research. The theoretical contribution may be theory discovery, illustration, refinement, or testing (Jönsson and Lukka, 2006).

The *constructive approach* (Fig. 1) represents qualitative case studies and can be seen as a subcategory of the action-oriented approach. Owing to its strong interventionist nature (Jönsson and Lukka, 2006) compared to all other types of case- and field studies (Lukka,

³ Cross-sectional field studies can also address more complex questions than surveys (Lillis and Mundy, 2005). However, although action-oriented elements may appear in some cross-sectional field studies, others may apply a positivist epistemology.

2005), we have good reason to see constructive research as an approach of its own.⁴ Furthermore, unlike the other approaches, the aim in constructive management accounting research is to solve firm-specific managerial problems by constructing innovative solutions, models, diagrams, plans and organizations. An essential part of the constructive approach is the connection of a practically relevant problem and its solution to accumulated theoretical knowledge. The novelty and the actual functioning of the solution must also be demonstrated (Kasanen et al., 1993).

3.3 Classifying the theoretical approaches of management accounting research

Different theoretical approaches are used, for example, in quantitative and qualitative management accounting research, and in mainstream, interpretative and critical research (see Hoque, 2006; Ryan, Scapens and Theobald, 2002). In this study, we distinguish 17 theoretical approaches for management accounting based on work by Ryan et al. (2002) and Hoque (2006) (see Appendix 1). They have provided several examples of theoretical approaches classified according to the mainstream, interpretive and critical research traditions of accounting.

According to Ryan et al. (2002, 68-93), management accounting *mainstream research* approaches can be classified into economics-based normative research and positive economic approaches or theories of management accounting. To the extent that behavioural, organizational (e.g., contingency research) and strategic research extend the discipline base of management accounting research but do not represent a shift in methodology, they can also be classified as mainstream approaches (Ryan et al. 2002). According to Hoque (2006, iii-iv), rational choice theory, human relations theory, contingency theory, agency theory, transaction cost economics theory, strategic choice and management control systems represent positivistic perspectives (see Appendix 1 for definitions).

⁴ Debates on the practical relevance of business and accounting research and the gaps between research and practice (Hopwood, 2007) has lifted the term *interventionist research* into focus. Jönsson and Lukka (2006) used interventionist research as an umbrella term to cover alternative forms of research, such as action research, action science, clinical research, the constructive research approach, design science and "rational modeling".

Interpretive research involves about understanding and making sense of the social world and includes work investigating the social nature of accounting practices (Hopper and Powell, 1985; Ryan et al., 2002, 42). As Appendix 1 shows, interpretive research uses, among other perspectives, a wide range of behavioural, organizational, social and political approaches, including legitimacy theory, institutional theory, stakeholder theory and actor network theory, and also interprets changes in management accounting systems (Hoque, 2006, v).

Critical accounting researchers investigates conflicts and inequalities in society as well as potential radical change. Critical management accounting research originated from the work by radical social theorists. The studies by Giddens and Latour have critical and interpretive elements (Ryan et al., 2002, 42-43, 87-90). According to Hoque (2006, vi), examples of critical perspectives include the theories of labor process and power (see Appendix 1).

4. Data and research methods

In this longitudinal historical investigation, we attempt to synthesize a comprehensive account of the development of Finnish dissertation research on management accounting from the first management accounting dissertation published by Kaitala in 1945 up to 2015. The selection and collection of dissertations and analyses involved three steps.

First, the nine Finnish business schools and departments with doctoral programs in accounting were identified.⁵ Second, all of the dissertations defended at those departments from 1945 to 2015 were identified. The names of the authors and the bibliographic details for their dissertations were collected from library databases, university and departmental-level web-pages and prior studies by Näsi and Näsi (1985), Näsi, Laine, Mäkinen and Näsi (1993) and

⁵ They are (in alphabetical order): Helsinki School of Economics (HSE, now part of Aalto University); Lappeenranta University of Technology (LUT); the Swedish School of Economics (Hanken); Turku School of Economics (TSE, now part of the University of Turku); the Universities of Jyväskylä, Oulu, Tampere and Vaasa; and Åbo Akademi University (ÅA). The Helsinki School of Economics was founded in 1911, the Swedish-language universities Åbo Akademi and Hanken in 1927, the Turku School of Economics in 1950 and the others in the 1960s or later. In addition, following Näsi and Näsi (1985) and Näsi et al (1993), one doctoral dissertation from the University of Helsinki (by Kaitala, published in 1945) was included.

Kihn and Näsi (2010). If no information was found, or information could not be found up to 2015, it was obtained from representatives of the institutions in question.

The second task was to identify dissertations in the field of management accounting according to either the title or a more detailed investigation. This search yielded 80 management accounting dissertations published during 1945-2015.⁶ This implies an average of approximately one doctoral dissertation per year. However, the actual distribution over time is less even. Although the first Finnish management accounting dissertation was published in the 1940s, doctoral education first started to grow in the 1970s, and again in the 1990s and 2000s. Only 13 dissertations were published during the first 35 years (1945-1969), and 67 thereafter (1970-2015). This growth in research can probably be attributed to the greater perceived importance of management accounting in modern business, as well as to changes in higher education. More emphasis has been placed on doctoral level education in Finland, more public and private research funding has been available, and supervision and collaboration between national and international academic communities has increased. The share of female scholars has also increased. While the first woman defended her doctoral thesis in 1990, women now account for 30% of such theses, and during the past ten years, over half (58%) of the dissertations were defended by women. Internationalisation of doctoral education is clearly evident: more than two-thirds of the dissertations have been written in English (rather than in Finnish or Swedish), and nearly one third have been published as collections of international journal articles or essays.⁷

Third, we read, analysed, discussed and classified the topics studied and the methodological and theoretical approaches employed in the 80 dissertations and compared the dissertations published in different decades. This was done using the classification systems presented in

⁶ Dissertations on management accounting published during 1945-2015 were from the following nine business schools and departments: Aalto University, 18 (22,5 %); University of Turku, 16 (20 %); University of Tampere 10, (12,5 %); University of Vaasa, 8 (10 %); University of Oulu, 7 (8,75 %); Lappeenranta University of Technology, 4 (5 %); Swedish School of Economics, 5 (6,25 %); Åbo Akademi, 6 (7,5 %) and University of Jyväskylä, 5 (6,25 %). In addition, the 1945 dissertation of Kaitala from the University of Helsinki was included.

⁷ If a dissertation consisted of at least two articles published, or accepted for publication, in a peer-reviewed journal, we called it a collection of articles. If a dissertation consisted of essays and fewer than two articles published or accepted for publication, we call it as a collection of essays.

Section 3 and Appendix 1. The categories and classifications for each paper are based on our understanding and interpretations, and are inevitably subjective to some extent. However, we believe that our analysis and synthesis offer a clear indication of the range and diversity of Finnish doctoral research. Appendix 2 summarizes the dissertations by author name, university, year and type of publication, dissertation title and topic area, methodological approach and theoretical approach.

5. Description and analysis of the dissertations

5.1 Developments for research topics

Our data summarized in Table 1, shows a relatively wide range and diversity of research topics in management accounting. Approximately one tenth of the dissertations focused on cost accounting, about 44% on management control and the remainder (46%) on a range of other topics. A change in emphasis from cost accounting and management control topics to other research topics has gradually widened the field of management accounting since the 1970s. Overall, the most popular research topics have been strategic management accounting (21.3%), organizational control (16.3%) and capital budgeting and investments (12.5%), as seen in the final column of Table 1. The first two of these have been especially popular during the last two decades.

[Place Table 1 about here]

Cost accounting was the first research topic to be addressed and capital budgeting and investments the second. The eight dissertations on cost accounting were published in the 1940s, 1950s, 1990s, 2000s and 2010s. The first two were on traditional cost accounting, the next four on activity-based costing and the latest two on quality costing. Capital budgeting and investments have remained quite popular topics since the 1950s. Dissertations have been published on performance measurement and evaluation since the late 1960s, and on organizational control since the 1970s. Other research topics have been in vogue at certain times. Decision-making studies with mathematical modeling, for example, were published in the 1970s but not thereafter; profitability and pricing studies were published in the 1970s and 1990s and budgeting studies in the 1980s and 1990s.

These results indicate that the expansion of doctoral research has led to an extension of research topics. Some of the topics have been of almost continuous interest, whereas others have been popular during specific time periods. The range of research topics and the field of management accounting are much wider now than during the first decades of doctoral education in Finland.

5.2 Developments for methodological approaches

Table 2 summarizes the primary methodological approaches applied in the 80 dissertations. The overall results presented in the final column of Table 2 show that 55% of the dissertations used an action-oriented approach, 22.5 % a nomothetic approach and the remaining 22.5% one of the other three approaches. Thus, the vast majority of the dissertations were empirical in nature and utilized either an action-oriented approach or a nomothetic approach, or to a lesser extent, a constructive approach. One-third of the dissertations were primarily positivistic (nomothetic or decision-analytical) and more than two thirds were conducted using alternative methodologies (action-oriented or constructive approaches based on hermeneutics and understanding).

[Place Table 2 about here]

The most popular methodological approaches have changed over time. The first dissertations formed the foundation for a new scientific discipline and were hence concept analytical in nature, developing new concepts and conceptual systems. Positivistic dissertations were initially decision analytical in the 1970s but have been nomothetic since the 1980s. Scholarly interest in empirical research has clearly increased since the 1980s. Action-oriented case studies have been conducted since the 1970s; in the 1980s they started to become the most popular approach and have increased ever since. The interventionist constructive case research approach is still rather novel (see also Järvenpää and Pellinen, 2005): some dissertations have taken this approach during the most recent decades. Application of multiple methodological approaches has become more common since the 1990s. Almost one fifth of the dissertations can be classified as studies using multiple methodological approaches; different methodological approaches are often applied in different articles. A large proportion of these are primarily nomothetic, of which eight are combined with action-oriented methodology

(Appendix 1, fourth column). A mixed method approach has been explicitly applied in only one of the studies.

These results indicate that the expansion of doctoral research has led to extension of methodological approaches. All of the methodological approaches have been applied, although different types of methodological development have occurred during different decades. The action-oriented approach is currently much more popular than the other approaches among Finnish management accounting doctoral students.

5.3 Developments for theoretical approaches

A wide range of theoretical approaches can be identified in the Finnish doctoral dissertations (see Appendix 2, fifth column). Many theoretical approaches have been used, especially for dissertations consisting of articles and essays. Many dissertations were also cross-disciplinary. The five theoretical approaches most frequently applied were: contingency, economic, behavioural and, more recently, strategic and institutional.

Economic approaches were used from the 1940s to beginning of the 1990s. Decision-making and capital investment theories were applied in the 1970s and 1980s. Contingency and strategic approaches have been continuously applied since the 1980s. Behavioural accounting theories were used in the 1980s and 1990s. Strategic and institutional approaches have been applied since the 1990s.

Most research topics have been investigated using multiple theoretical approaches.⁸ Capital budgeting and investments, for example, have been examined using behavioural, contingency, economic and investment theoretical approaches. Organizational control has been addressed using actor-network, contingency, decision-making, power and system theories. Strategic management accounting has mainly been researched using strategy and contingency theories as well as multiple theoretical approaches. These results indicate that the expansion of doctoral research has led to extension of theoretical approaches.

⁸ The only exceptions are studies on decision-making and on profitability and pricing.

All three research traditions and most of the theoretical approaches listed in Appendix 1 have been applied, although different types of theoretical developments have occurred during different decades. The mainstream research tradition and the theoretical approach applied in that tradition (economics, theory of the firm, decision making theory, investment theories, contingency theory, etc.) have clearly dominated the research on accounting information systems, capital budgeting and investments, organizational control and strategic management. The interpretive research tradition (with theoretical approaches such as stakeholder theory, legitimacy theory and institutional theory) has dominated the research on management accounting change, performance measurement and evaluation and strategic management accounting. The interpretive accounting research tradition was first introduced in the 1980s and has continued since becoming dominant in the 2000s. Critical accounting research is in infancy. Some theoretical approaches such as power and actor network theories have been borrowed from other social sciences but without an exception, these have been used in the interpretive rather than the critical tradition of accounting research since they have not been applied to investigation of conflicts and equalities or radical change.

6. Synthesis of research developments and discussion

The aim of this study was to chart progress in management accounting research using a sample of doctoral dissertations published in Finland. In particular, we examined the range and diversity of research strategic choices in these dissertations from 1945 to 2015. While developments for each research strategic element were analysed in the previous section, a more comprehensive picture of the various developments by decade can be presented as follows.

The advent of conceptual research on cost accounting occurred from the 1940s to the 1950s, followed by conceptual and normative research on capital budgeting and investment. All of these studies applied mainstream economic approaches and either conceptual or decision analysis as their methodological approach. In this phase, there were very few doctoral dissertations.

During the 1970s and 1980s, doctoral research in the field of management accounting started to increase. Several studies focused on capital budgeting and investments, first via decision-

analytical research methodology and later via action-oriented methodology. Several new topic areas emerged during these two decades, such as decision-making in the 1970s and budgeting in the 1980s. While the decision-analytical approach was applied only in the 1970s, the nomothetic approach was first introduced in the 1980s. The hermeneutics-based action-oriented approach, which was initially introduced as an alternative, quickly became and remains the dominant approach. In addition to the economic approach, multiple theoretical approaches (e.g., theory of the firm, decision-making theory and behavioural approach) were utilized during the 1970s and 1980s. With this increase in diversity, doctoral research began to shift from a purely theoretical basis to a theoretic-empirical direction.

During the last 25 years (1990-2015), analysis of a wide range of topics has continued and strengthened as doctoral education has continued to expand. There has been growing interest in actors and their behaviour and actions, primarily from an action-oriented approach. In addition, greater emphasis on the practical relevance of research has raised the constructive approach to a methodological alternative in its own right. Doctoral students have been most interested in the so-called other topics (cf. Hesford et al, 2007; Shields, 1997; Lindquist and Smith, 2009), followed by studies on management control and cost accounting. Strategic management accounting (cf. Nixon and Burns, 2012), organizational control and performance measurement have become the most popular topic areas during the 2000s. New theoretical approaches have been borrowed from management and behavioural research and from the other social sciences (see also Malmi and Granlund, 2009; Pihlanto, 1986). Accordingly, there has been a shift from a mainstream research focus to an emphasis on interpretive approaches. These findings indicate a wider range of innovative developments as scholars have selected new research topics and adopted novel theoretical and methodological approaches. At the same time, the dominating research strategic choices have been somewhat different from those found by Hesford et al. (2007), Shields (1997), Lindquist and Smith (2009), and Scapens and Bromwich (2001a,b).

Regarding the above mentioned developments it is noteworthy that during the seven decades, doctoral research on management accounting in Finland experienced two major surges. The first was in the 1970s, when the slowly emerging doctoral education in the field of management accounting in Finland first started to increase. This occurred as part of the

growing interest in doctoral education and in the theory of science and methodological issues for all areas of business economics (Näsi and Näsi, 1997 and 2013).

The second surge was in the 1990s and 2000s. The growth in research was related to changes in higher education – more emphasis was placed on doctoral level education in Finland, more public and private research funding was available and supervision and collaboration between national and international academic communities increased. At the same time, the phrase “publish or perish” was often repeated, referring to the internationally spread performance-based steering and management of universities. In Finland, performance- or results-based steering and management were adopted in all state organizations from 1995, including universities (which were still state institutions at that time), leading to an increase in performance objectives, including the number of doctoral degrees (Treuthardt and Näsi, 2007). In addition, there was an increasing share of female authors. Consequently, dissertation research in the field of management accounting in Finland has been extensive and vital enough to educate new generations of academics and to replace professors from the baby-boom generation, who have been moving to emeritus and emerita status. Extension of doctoral education guarantees continuity of the subject as an academic discipline, and makes management accounting a significant academic field of research today.

Finally, it is noteworthy that doctoral research has also become more international. While the early concept-analytical studies developed new concepts in Finnish, many of the later studies have been written in English. Overall, more than two-thirds of the dissertations have been written in English and nearly one-third have been published as collections of international journal articles or essays. During the past 5 years, the share of article collections has slightly increased (Appendix 2).

7. Conclusions

Several scholars have recently highlighted the narrowness of accounting research, regarding this as a threat to scholarly developments in the field (Lukka, 2010; Malmi, 2010; Merchant, 2010; Modell, 2010; Scapens and Bromwich, 2010a, b). This study has addressed the progress in management accounting research by focusing on the range and diversity of the research strategic choices in doctoral dissertations published in Finland during 1945-2015. The key

findings reveal that dissertations published in Finland have both extended existing research and taken new research directions. Hence, the expansion of doctoral education has led to an increasing diversity of research strategic choices in Finland.

While the number of dissertations was initially small and the range of research strategic choices quite narrow during the first decades, a multi-paradigm approach for a wide range of research topics and theoretical approaches has gradually emerged as doctoral education expanded and new research directions were called for as a result of the "relevance lost" debate in management accounting (Kaplan and Johnson, 1987). Taken together, these dissertations have covered all the key topics in management accounting, and applied all the methodological approaches and a variety of theoretical approaches over time. With this increase in diversity, doctoral research has shifted from a purely theoretical to a more theoretic-empirical direction, and from mainstream research to an emphasis on interpretive approaches. These findings support the expectations of Lukka (2010) regarding the healthy state of multi-paradigm management accounting research in Europe. Likewise, they support empirical results on the high diversity of European (see Hesford et al., 2007; Scapens and Bromwich, 2010b; Zawawi and Hoque, 2010), Nordic (Näsi and Rohde, 2007) and Finnish (Näsi and Näsi 1985 and 1997; Kihn and Näsi, 2010) management accounting research, although different topics and theoretical and methodological approaches have been of interest at different times in Finland (see also Näsi and Näsi, 1985; Näsi, et al. 1993; Kihn and Näsi, 2010).

While the 1980s and/or 1990s have been identified as a period of change in management accounting research in many previous studies (Scapens, 2006; Hesford et al., 2007; Shields, 1997; Näsi and Rohde, 2007), our data suggest changes in topics and theoretical and methodological approaches already since the 1970s and 1980s. Other findings of ours that are unusual in an international context include the high (over 20%) share of strategic management accounting topics and the dominating (55%) status of action-oriented case studies. The high interest in strategic management accounting topics is probably related to the availability of interdisciplinary courses and international and Finnish publications in strategy and strategic planning ever since the 1980s. The popularity of action-oriented case studies reflects the interests of many doctoral students and their supervisors, many of whom were interested in the philosophy of science and in alternative approaches.

This study is subject to certain limitations. First, given the sample size and the long period of time covered, it was not possible to provide a more in-depth analysis of every dissertation. Instead, we tried to provide as comprehensive a picture as possible of the entire body of dissertation research on management accounting in Finnish business schools throughout the period of relevance. Second, our results only relate to doctoral research and education. They are, however, likely to be linked to developments in focal areas of research in Finland, as future scholars are mostly educated in Finnish universities and business schools to date. Third, our study is limited to Finland. Nevertheless, our results should be relevant in advancing the understanding of the development of management accounting research and education at an international level. Further research could investigate to what extent and where doctoral research is eventually published in journals. Future studies could also focus on future time periods and on benchmarking against developments in other countries and other disciplines.

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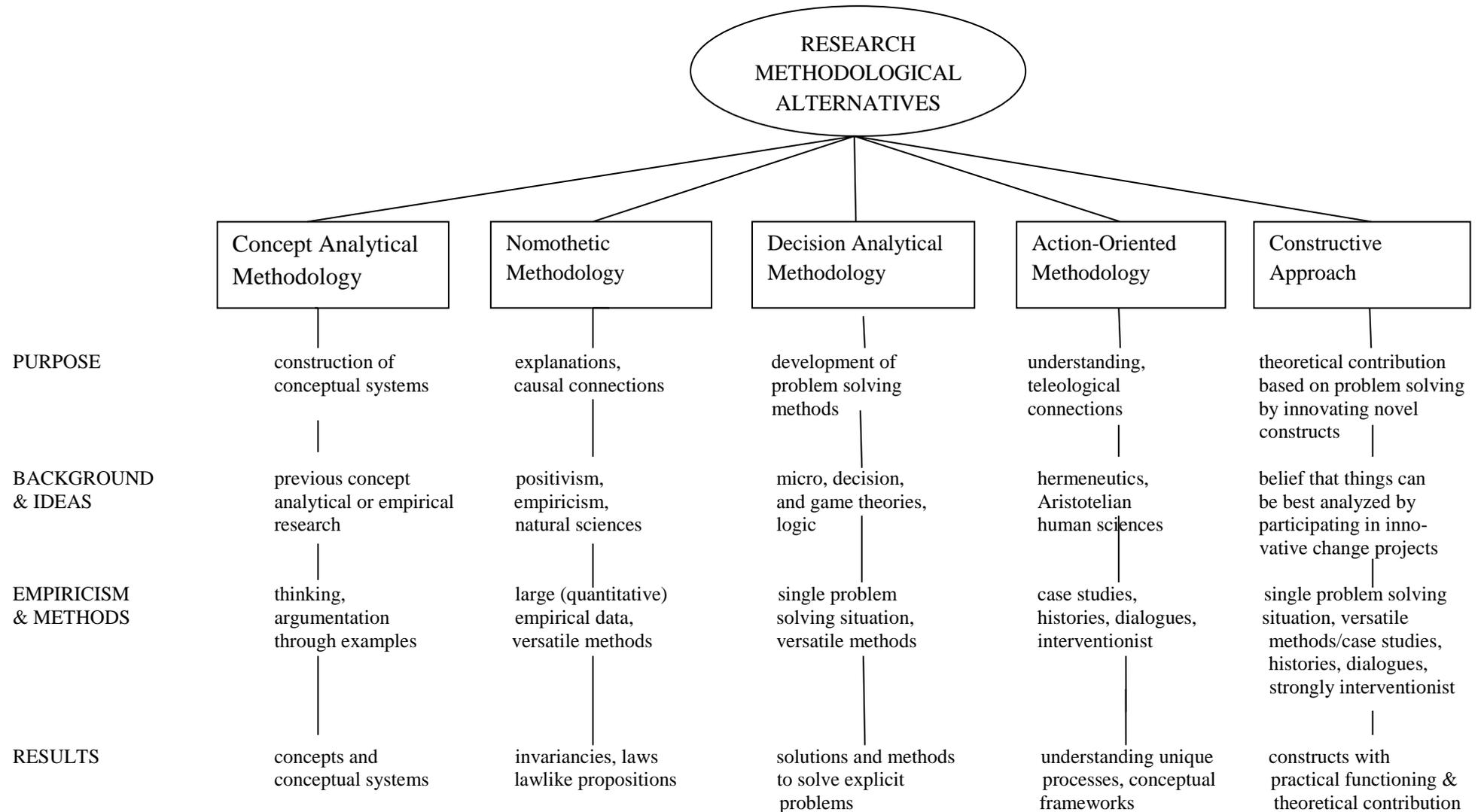


Fig. 1. The research methodological alternatives (modified from Näsi, 1980; Neilimo and Näsi, 1980, Kasanen, Lukka & Siitonen, 1993, and Kihn and Näsi, 2010).

Table 1

Management accounting dissertations according to the research topics analyzed (n=80).

Research topics	Decades								Total (%)
	-1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010- 2015	
<i>Cost accounting</i>	1	1				1	4	1	8 (10.0)
<i>Management control</i>									
a) Capital budgeting and investments		1		3	2	2	2		10 (12.5)
b) Budgeting					2	2			4 (5.0)
c) Performance measurement & evaluation			1				5	2	8 (10.0)
d) Organizational control				1	1		7	4	13 (16.3)
<i>Other topics</i>									
a) Decision making				3				1	4 (5.0)
b) Profitability and pricing				1		1			2 (2.5)
c) Accounting information systems				1	1		3	1	6 (7.5)
d) Management accounting history & change					1	3	3	1	8 (10.0)
e) Strategic management accounting					1	4	10	3	17 (21.3)
<i>Total (%)</i>	1 (1.3)	2 (2.5)	1 (1.3)	9 (11.3)	8 (10.0)	13 (16.3)	33 (41.3)	13 (16.3)	80 (100)

Table 2

The 80 management accounting dissertations according to the primary methodological paradigms.

Primary methodological approach	Decades								Total (%)
	-1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010-2015	
Action-oriented				2	4	9	19	10	44 (55.0)
Decision analytical		1		7					8 (10.0)
Nomothetic					3	4	10	1	18 (22.5)
Concept analytical	1	1	1		1				4 (5.0)
Constructive research							4	1	5 (6.3)
Multiple methodological approaches								1	1 (1.3)
Dissertations in total:	1 (1.3)	2 (2.5)	1 (1.3)	9 (11.3)	8 (10.0)	13 (16.3)	33 (41.3)	13 (16.3)	80 (100%)

Appendix 1. Examples of theoretical approaches to MA research

Research tradition/theoretical approach	Definition/description
<i>Mainstream research:</i>	
Economics based normative research	<ul style="list-style-type: none"> • Neoclassical economic framework: Builds on the fundamental notion that relevant costs should be identified in the context of the particular decision at hand. Is widely used to analyze decision-making contexts with profit maximizing objectives and the emergence of MA techniques in the academic literature.¹ • Information economics: Information production costs are considered in constructing decision models, and the provision of information is found to be problematic. • Principal-agent model: A normative approach to agency theory (AT) research.¹
Positive economic theories	<ul style="list-style-type: none"> • Positive theory of agency: Explains the behavior of individuals as economic agents, provides prescriptions for managerial action and explains observed accounting practices.¹
Behavioral theoretic	<ul style="list-style-type: none"> • Behavioral accounting research: Explains how the design and use of, for example, budgets can have an impact on the behavior of organizational participants, and their levels of job satisfaction, individual and organizational performance and how people affect budgets.¹ • Behavioral decision theory and cognitive psychology: Focuses on how information is processed in human decision-making – how the individual responds to various ‘cues’ and makes probabilistic judgments and uses heuristics.¹
Contingency theoretic	<ul style="list-style-type: none"> • Contingency research: seeks to identify relationships between and impacts of particular environmental, organizational and/or behavioral factors and of accounting variables. normally with cross-sectional statistical studies.¹
Strategic management accounting	<ul style="list-style-type: none"> • Focuses on the development and application of new techniques of cost and management accounting that often relate to external factors and non-financial and internally generated information.¹
Rational choice theory (RCT)	<ul style="list-style-type: none"> • A normative theory that provides an explanation of decision-making where all the costs and benefits of each alternative are considered with the objective of maximizing utility (or minimizing disutility).²
Human relations theory	<ul style="list-style-type: none"> • Places emphasis on how a variety of human aspects (such as the individual and the organization, motivation, supervisory and management leadership, group dynamics and organizational development) can affect the operation of accounting and control systems in organizations.³
Transaction cost economics (TCE)	<ul style="list-style-type: none"> • Makes predictions on firm size based on the relative magnitudes of transaction costs occurring in the switch from bureaucracy to market-based provision.⁴
Strategic choice on management	A number of eclectic theories focusing on different control systems perspectives of strategy and management control systems. ⁵

Interpretive research

Legitimacy theory	A theory that is increasingly used by accounting researchers, particularly researchers working in the area of social and environmental accounting. Legitimacy theory is derived from political economy theory, and therefore, accepts that an organization is part of a broader social system. Legitimacy theory is a positive theory as it seeks to describe or explain corporate behavior in terms of efforts made to appear legitimate, rather than prescribing how organizations should behave, which is the role of a normative theory of corporate conduct. Legitimacy theory has also been described as a system-based theory that permits us to focus on the role of information and disclosure in the relationships between organizations, the state, individuals and groups. ⁶
Institutional theory	<p>Has become popular for accounting studies that seek to understand why and how accounting becomes what it is, or is not. The three branches that have exerted the most influence are: 1) old institutional economics (OIE), 2) new institutional economics (NIE) and 3) new institutional sociology.</p> <ul style="list-style-type: none"> • OIE theory would generally consider why/how particular behaviors or structures emerge, sustain and/or change over time rather than merely what structures exist at any given point of time. A focus on the processes of change underpins most accounting studies that have recently adopted OIE theory. • NIE seeks to explain the existence or appearance of some institutions, and the non-existence or disappearance of others. Institutions, which are composed of rules, norms of behavior and the way they are enforced, provide the opportunity set in an economy that determines the kind of purposive activity embodied in organizations that will come into existence. • NIS-informed studies assume that intra-organizational structures and procedures, including accounting, are largely shaped by external factors rather than cost-minimizing objectives. Thus, scholars have used NIS insights to explain how the adoption of particular accounting systems can be understood in terms of a need to conform to external pressures as opposed to an overriding rational-optimizing drive for increased internal efficiency.⁷
Stakeholder theory	Challenges the neoclassical economic theory of the firm by upholding the interests of all stakeholders rather than just shareholders. Stakeholders include any group who can affect or is affected by the achievement of organizational activities (Freeman, 1984). Accounting from a stakeholder perspective is concerned with a wider conception of organizational performance and reporting, not purely to shareholders, but to a broad range of stakeholders that make up the society. ⁸
Actor-Network Theory (ANT)	Is a framework and systematic way to consider the infrastructure surrounding technological achievements. Assigns agency to both human and non-human actors (e.g. artifacts). Originators: Michel Callon (1991) and Bruno Latour (1992). ⁹
Management accounting change	Research focuses on interpretive perspectives influenced, for example, by the work of Latour, Foucault and Giddens (theory of structuration 1984). Evolutionary process of change versus revolutionary change. ¹⁰

Critical research:

Critical theory	Is not a narrow theoretical perspective but an interdisciplinary perspective, a theory of any description that is enrolled to be critical in the sense of Critical Theory. It provides a way of seeing that exists as a prerequisite for social change.
Theory of labor process	Labor process is about the control of labor power that is a human's ability to perform work. The labor process perspective regards social action as primarily determined by social structures that are dominated by and serve the interests of the capitalist class (Ryan et al. 2002). A critically informed labor process approach to accounting theory and practice recognizes that extant accounting control systems are both a medium and outcome of a historically informed capitalist mode of production. ¹¹
Theory of power	Power is defined as influence or control, despite resistance. Power is related to accounting in two ways: locations of power and levels of analysis. Two locations of power have been identified: the power of accounting and the power over accounting. The power of accounting has been articulated for its ability to generate shared interest among competing groups, to create a powerful language for a managerial discourse and to unfold social and organizational knowledge for controlling the others. The power over accounting has been expressed in terms of its dependence on the power of historically established organization structures, state politics and crony capitalism, and social cultures and traditions. ¹²

Sources:

¹ Ryan, Scapens and Theobald (2002)² Moll and Hoque in Hoque (2006)³ Hoque (2006)⁴ Jones in Hoque (2006)⁵ Nixon in Hoque (2006)⁶ Deegan, pp. 161-181, in Hoque (2006)⁷ Moll, Burns and Major, pp. 183-205, in Hoque (2006)⁸ Alam, pp. 207-222, in Hoque (2006)⁹ Callon (1986), Latour (1987) and Latour (2005)¹⁰ Busco, pp. 223-245, in Hoque (2006)¹¹ Dillard, pp. 271-290, in Hoque (2006)¹² Wickramasighe, p. 339 in Hoque (2006)

Appendix 2. Management accounting doctoral dissertations published in Finland between 1945 and 2015

Author (University) (Year)	Publ. type ¹	Title (and topic)	Research methodology	Theoretical approach
1. KAITILA, Esa (UH) ² (1945)	M	Kustannusten riippuvaisuus suoritelmäärästä. Liiketaloudellinen tutkimus I (Costs and volumes, a business economic study I). (Cost accounting)	Concept analytical	Economics (cost theories)
2. VIRKKUNEN, Henrik (HSE) ³ (1951)	M	Teollisuuden kertakustannukset, niiden degressio sekä käsitteily kustannuslaskennassa (Initial costs of manufacturing industry, their degression and treatment in cost accounting). (Cost accounting)	Concept analytical	Economics (cost theories)
3. HONKO, Jaakko (HSE) (1955)	M	Koneen edullisin pitoaika ja investointilaskelmat, Taloudellinen tutkimus (The economic life of machinery and capital investments calculations). (Capital budgeting and investments)	1. Decision-analytical 2. Concept analytical	Economics (production economy, engineering economy)
4. PITKÄNEN, Eero (HSE) (1969)	M	Tuotostavoitteiden operationaalisuus julkisessa hallinnossa (Operational output objectives in public administration). (Performance measurement and evaluation)	Concept analytical	Economics (theory of the firm)
5. LINDSTRÖM, Caj- Gunnar (ÅA) ⁴ (1971)	M	Om informationen i beslutsprocessen. Ett utkast till en systemanalys. (Decision making)	Decision-analytical	Multiple approaches (behavioral theory of the firm, decision and planning theory)
6. JUNNELIUS, Christian (SHE) ⁵ (1974)	M	Investeringsprocessens utformning vid olika organisationsstrukturtyper. (Capital budgeting and investments)	Action-oriented	Multiple approaches (behavioral theory of the firm, investment process theory)
7. WALLENIUS, Jyrki (HSE) (1975)	M	Interactive multiple criteria decision methods: an investigation and an approach. (Decision making)	Decision-analytical	Multiple approaches (theory of the firm, decision making)

8. SALMI, Timo (HSE) (1975)	M	Joint determination of trade, production, and financial flows in the multinational firm assuming risky currency exchange rates. A two-stage linear programming model building approach. (Decision making)	Decision-analytical (operations research)	Production and financial planning/ budgeting
9. TAMMINEN, Rauno (VY) ⁶ (1976)	M	A theoretical study in the profitability of the firm. (Profitability and pricing)	Decision-analytical	Economics
10. CARLSSON, Christer (ÅA) (1977)	M	Adaptiv multimålkontroll, Om principerna för operationell problemlösning i en complex omgivning. (Organizational control)	Decision-analytical	Decision-making theory
11. REPONEN, Tapio (TSE) ⁷ (1977)	M	The screening off of investment alternatives in the dynamic planning of expansion programmes for economically independent projects. (Capital budgeting and investments)	Decision analytical	Multiple approaches (decision-making, investment theory, capital budgeting theory)
12. WALLIN, Jan (ÅA) (1978)	M	Computer-aided multiattribute profit planning, A study of risk simulation and multiple criteria decision-making. (Accounting information systems)	Decision analytical	Decision-making theory
13. VIRTANEN, Kalervo (HSE) (1979)	M	Yritystoston suunnittelu prosessina (Acquisition planning as a process). (Capital budgeting and investments)	Action-oriented	Capital budgeting theory
14. KYLÄKOSKI, Kalevi (HSE) (1980) (M)	M	Yrityksen strategiasuunnittelu systeeminä ja prosessina (Corporate strategic planning as a system and as a process). (Strategic management accounting)	1. Nomothetic 2. Concept analytical	Multiple approaches (business economics and administration theories, system theory, decision making theory, etc.)
15. PAASIO, Antti (TSE) (1981)	M	Yrityskybernetiikka ja laskentatoimi (Managerial cybernetics and accounting). (Organizational control)	Concept analytical	System theory/cybernetics
16. ALALUUSUA,	M	Structural determinants of the budgeting process: An approach with application to Finnish firms.	Nomothetic	Contingency theory

Seppo (HSE) (1982)		(Budgeting)		
17. KOIRANEN, Matti (TAY) ⁸ (1982)	M	The development dimension of a computer-based management information system, A study of systems effectiveness and information management. (Accounting information systems)	Nomothetic	Multiple approaches (eclectic theories of business science)
18. MEKLIN, Pentti (TAY) (1987)	M	Päämääräongelma valtion liikelaitoksessa (The objectives problem in a state enterprise). (Management accounting history and change)	Action-oriented	Economics (welfare economics)
19. LUKKA, Kari (TSE) (1988)	M	Budjettiharhan luominen organisaatioissa (Budgetary biasing in organisations). (Budgeting)	Action-oriented	Behavioral
20. ASP, Kari (HSE) (1988)	M	Rahoitustuki yrityksen investointiprosessissa (The role of financial incentives in the capital investment process). (Capital budgeting and investments)	1. Action-oriented 2. Decision-analytical	Investment theories
21. BJÖRKMAN, Ingmar (Hanken) (1989)	M	Foreign direct investments: an empirical analysis of decision making in seven Finnish firms. (Capital budgeting and investments)	Action-oriented	Multiple approaches (capital investment theory, decision making theories (incl. behavioural theory of the firm)
22. LUMIJÄRVI, Olli-Pekka (TSE) (1990)	M	Gameplaying in capital budgeting. (Capital budgeting and investments)	Action-oriented	Behavioral
23. NÄSI, Salme (TAY) (1990)	M	Laskenta-ajattelun kehitys viime vuosisadan puolivälistä nykypäiviin – suomenkieliseen laskentatoimen kirjallisuuteen perustuva historiantutkimus (The development of accounting thought from the middle of the last century to the present day. A historical investigation of accounting literature in Finnish). (Management accounting history and change)	1.Action-oriented; historical 2. Concept-analytical	Historical

24. LEPPÄALHO, Markku (TAY) (1991)	M	Yrityksen kehitysvaiheet ja liiketoimintastrategian muotoutumisprosessit. (Strategic management accounting)	Action-oriented; grounded theory	Strategic theories
25. HASSEL, Lars (ÅA) (1992)	E	The effectiveness of budgetary control in a multinational context. (Budgeting)	Nomothetic	Contingency
26. RÄNNÄRI, Osmo (HSE) (1992)	M	Electricity pricing behaviour in Finland. (Profitability and pricing)	Nomothetic	Economics (neoclassic economic theory)
27. WIKMAN, Ossi (TSE) (1993)	M	Yrityksen investointiprosessi ja siihen vaikuttavia tekijöitä. (Capital budgeting and investments)	Action-oriented	Behavioral
28. KAIKKONEN, Viljo (TAY) (1994)	M	Ihminen, strategia-ajattelu ja laskentatoimi. Hermeneuttinen tutkimus. (Strategic management accounting)	Action-oriented	Behavioral (humanistic accounting) research
29. AHOLA, Jyrki (LUT) ⁹ (1995)	M	Yrityksen strategiaprosessi. Näkökohtia strategisen johtamisen kehittämiseksi konserniorganisaatiossa. (Strategic management accounting)	1. Action-oriented 2. Decision-analytical	Strategic theory (strategic management and strategy process)
30. IHANTOLA, Eeva-Mari (TAY) (1997)	M	Organisaation budjetointi-ilmapiirin ymmärtäminen organisatorissosiaalisessa kontekstissaan. (Budgeting)	Action-oriented	Behavioral accounting research
31. KIHN, Lili-Anne (TSE) (1997)	M	International strategies, relative financial controls and performance evaluations of overseas managers – empirical evidence from Finnish firms. (Strategic management accounting)	Nomothetic	Multiple approaches (Strategic theory, contingency theory)
32. MALMI, Teemu (HSE) (1997)	A	Adoption and implementation of activity-based costing: practice, problems and motives. (Cost accounting)	1. Nomothetic Action-oriented	2. Innovation diffusion, accounting change
33. PELLINEN, Jukka (JY) ¹⁰ (1997)	M	Unfolding a management accounting system change. (Management accounting history and change)	1. Action-oriented 2. Constructive	Multiple approaches (system theory, concepts of Bourdieu)

			approach	and Latour)
34. GRANLUND, Markus (TSE) (1998)	E	The challenge of management accounting change. A case study of the interplay between management accounting, change and stability. (Management accounting history and change)	Action-oriented	Multiple approaches (structuration theory, new institutional theory)
35. AGBEJULE, Adebayo (VY) (2000)	M	An administrative and institutional perspective of activity-based costing implementation. (Cost accounting)	Action-oriented	Multiple approaches (theories of administrative innovation, new institutional sociology, old institutional economics)
36. HUSSAIN, Md. Mostaque (VY) (2000)	E	Management accounting systems in services: empirical evidence with non-financial performance measures in Finnish, Swedish and Japanese banks and other financial institutions. (Performance measurement and evaluation)	1.Action-oriented 2. Nomothetic	New institutional sociology
37. KURUNMÄKI, Liisa (JY) (2000)	A	Power relations in the health care field: accounting, accountants, and economic reasoning in the new public management reforms in Finland. (Organizational control)	Action-oriented	Power and accounting
38. PARTANEN, Vesa (TSE) (2001)	M	Muuttuva johdon laskentatoimi ja organisatorinen oppiminen: Field-tutkimus laskentahenkilöstön roolin muutoksen ja uusien laskentainnovaatioiden käyttöönoton seurauksista. (Management accounting history and change)	Action-oriented	Learning and change theories
39. VAIVIO, Juhani (HSE) (2001)	A	Non-financial measurement in an organizational context. Three perspectives. (Performance measurement and evaluation)	Action-oriented	Multiple approaches (institutional framework of MA change, organizational knowledge creation, power relations)

40. JÄRVENPÄÄ, Marko (TSE) (2002)	M	Johdon laskentatoimen liiketoimintaan suuntautuminen laskentakulttuurisena muutoksena – vertaileva case-tutkimus. (Management accounting history and change)	Action-oriented	Contingency and institutional theory
41. KASURINEN, Tommi (HSE) (2003)	A	Exploring management accounting change in the balanced scorecard context – three perspectives. (Management accounting history and change)	Action-oriented	Multiple approaches (accounting change, institutional theory, organizational learning)
42. PUOLAMÄKI, Esa (TSE) (2004)	M	Strategic management accounting constructions in organizations. A structuration analysis of two divisional strategy processes. (Performance measurement and evaluation)	Constructive	Strategic and structuration theory
43. VIHTONEN, Tiina (LUT) (2004)	M	Tuote- vai liiketoimintaosaamista? Pienten ja keskisuurten leipomoalan yritysten strategiset valinnat, liikkeenjohdon käytännöt ja menestyminen. (Strategic management accounting)	Nomothetic	Strategic theory
44. YLINEN, Mika (VY) (2004)	M	Management control systems in technical and administrative development projects. (Organizational control)	Nomothetic	Contingency theory
45. JÄRVINEN, Janne (OY) ¹¹ (2005)	M	Rationale for adopting activity-based costing in hospitals: three longitudinal case studies. (Cost accounting)	Action-oriented	Institutional theory
46. MÄÄTTÄ, Seppo (TSE) (2005)	M	Strategian ja strategisen informaation tulkintahorisontteja. (Strategic management accounting)	Action-oriented	Multiple approaches
47. WINGREN, Tom (VY) (2005)	A	Essays on activity-based costing mass-tailorization, implementation and new applications. (Cost accounting)	Constructive	Multiple approaches (knowledge creation theory, ABC, value chain analysis,

				intellectual capital, etc.)
48. JOKIPII, Annukka (VY) (2006)	M	The structure and effectiveness of internal control: a contingency approach. (Organizational control)	Nomothetic	Contingency theory
49. VIRTANEN, Tuija (HSE) (2006)	A	Johdon ohjausjärjestelmät muuttuvassa toimintaympäristössä. (Strategic management accounting)	Action-oriented	Strategic theory
50. VUORENMAA, Erkki (TSE) (2006)	M	Trust, control and international corporate integration. (Organizational control)	Action-oriented	Iterative grounded theory (theories of trust and control)
51. HYVÄRI, Irja (HSE) (2007)	A	Project management effectiveness in different organizational conditions. (Organizational control)	1. Nomothetic Action-oriented	2. Contingency theory
52. JÄNKÄLÄ, Sinikka (OY) (2007)	M	Management control systems (MCS) in the small business context. Linking effects of contextual factors with MCS and financial performance of small firms. (Strategic management accounting)	Nomothetic	Contingency theory
53. SILVOLA, Hanna (OY) (2007)	E	Management accounting and control systems used by R&D intensive firms in different organizational life-cycle stages. (Capital budgeting and investments)	1. Nomothetic Action-oriented	2. Contingency theory
54. UUSITALO, Kari (TAY) (2007)	M	Developing a customer feedback information system to support market oriented management – case: customer distribution process in technical wholesale business. (Strategic management accounting)	Constructive	Multiple approaches (marketing, management and information theories, customer-oriented business economics, pragmatism)
55. HYVÖNEN, Johanna (OY) (2008)	A	Linking management accounting and control systems, strategy, information technology, manufacturing technology and organizational performance of the firm in contingency framework. (Strategic management accounting)	1. Nomothetic Action-oriented	2. Contingency theory

56. MOILANEN, Sinikka (OY) (2008)	A	The role of accounting in management control systems of firms having subsidiaries in the former Soviet Union. (Organizational control)	Action-oriented	Multiple approaches (MA change, actor-network theory, old institutional economics, sociology of modernity theory)
57. SIPPOLA, Kari (OY) (2008)	M	Two case studies on real time quality cost measurement in software business. (Cost accounting)	Constructive	Other (pragmatism)
58. TANNINEN, Kati (LUT) (2008)	M	Diffusion of administrative innovation: TQM implementation and effectiveness in a global organization. (Strategic management accounting)	Nomothetic	Contingency theory
59. TEITTINEN, Henri (JY) (2008)	M	Näkymätön ERP: Taloudellisen toiminnanohjauksen rakentuminen. (Accounting information systems)	Action-oriented	Actor- network theory
60. VELCU, Oana (Hanken) (2008)	A	Drivers of ERP system's business value. (Accounting information systems)	Nomothetic	Contingency theory
61. YIGITBASIOGLU, Ogan (Hanken) (2008)	M	Determinants and consequences of information sharing with key suppliers. (Strategic management accounting)	Nomothetic	Contingency theory
62. BÜRKLAND, Sirle (VY) (2009)	M	Managing the development of valuable intellectual capital. The role of management control. (Organizational control)	Action-oriented	Actor-network theory
63. HUIKKU, Jari (HSE) (2009)	A	Post-completion auditing of capital investments and organizational learning. (Capital budgeting and investments)	Action-oriented	Multiple approaches (organizational learning and cybernetic control theories)
64. PÄTÄRI, Satu (LUT) (2009)	A	On value creation at an industrial intersection – bioenergy in the forest and energy sectors. (Strategic management accounting)	1. Action-oriented (Delphi study) 2. Nomothetic ¹¹	Strategic theory

65. HYVÖNEN, Timo (TAY) (2010)	A	Exploring management accounting change in ERP context. (Accounting information systems)	1. Action-oriented 2. Nomothetic	Multiple approaches (MA change, actor-network theory, institutional theory)
66. CHAKHOVIC, Terhi (HSE) (2010)	E	Essays on managerial myopia and subject positions in companies with different governance structures. (Performance measurement and evaluation)	Action-oriented	Social constructivism
67. RAUTIAINEN, Antti (JY) (2010)	A	Conflicting legitimations and pressures in performance measurement adoption, use and change in Finnish municipalities. (Performance measurement and evaluation)	1. Action-oriented 2. Nomothetic	Institutional theory (new institutional sociology)
68. KULLMAN, Christer (ÅA) (2010)	M	Redovisningsinformation på entreprenad i interaktiva relationer. (Organizational control)	Action-oriented	Multiple approaches (management control, B2B relationship, and Holmlund's models)
69. WAGNER, Michael (Hanken) (2011)	A	Inventory Routing - A Strategic Management Accounting Perspective. (Strategic management accounting)	Nomothetic	Multiple approaches (supply chain management, economics and strategy, operations research, strategic management accounting)
70. KOLEHMAINEN, Katja (Aalto) (2012)	A	On the interface between strategy and management accounting: four essays. (Strategic management accounting)	Action-oriented, case study approach	Multiple approaches (strategic theory, management control frameworks)
71. MÄTTÖ, Toni (JY) (2012)	M	Implementation of Quality Cost Management Tool in Dyadic Purchaser-Provider Relationship Context. (Cost accounting)	Action-oriented, interventionist case study	Multiple approaches (concepts of intra-organizational cost management and open-book accounting, contingency theory, theories of trust,

				transaction cost economics)
72. PÄRL, Ülle (TAY) (2012)	M	Understanding the Role of Communication in the Management Accounting and Control Process. (Organization control)	Action-oriented	Multiple approaches (communication theory, cultural semiotics)
72. PITKÄNEN, Hanna (UTU, TSE) (2013)	M	Theorizing formal and informal feedback practices in management accounting through three dimension. (Organizational control)	Interpretive case study method/ abductive analysis	Multiple approaches (formal and informal feedback, cybernetic control theory, performance measurement)
73. KALLIO, Kirsi-Mari (UTU, TSE) (2014)	M	Ketä kiinnostaa tuottaa tutkintoja ja julkaisuja liukuhihnaperiaatteella...? Suoritusmittauksen vaikutukset tulohajattujen yliopistojen tutkimus- ja opetushenkilökunnan työhön. (Performance measurement)	Nomothetic approach and action-oriented approach (Mixed-method)	Multiple approaches (New Public Management, NPM, performance measurement and performance management)
75. KANTOLA, Hannele (OY) ((2014)	A	Management accounting change in public health care. (Management accounting history and change)	Action-oriented	Multiple approaches (Actor Network, ANT, New institutional sociology, NIS)
76. MUTIGANDA, Jean Claude (ÅA) (2014)	A	Accounting for competition, governance and accountability during institutional change in not-for-profit and public sector organisations. (Decision-making)	Action-oriented	Multiple approaches (critical realism, communicative action, negotiated order, and circuits of power)
77. PALMROOS, Lars (VY, 2014)	M	Construction of an institutionally aware process-oriented performance measurement system – a case study of a Finnish local government. (Performance measurement and evaluation)	Constructive longitudinal case study	Institutional theories (New institutional sociology, NIS, Old institutional economics OIE)

78. PARVINEN, Marika (UTU, TSE) (2014)	M	Taiteen ja liiketoiminnan välinen jännite ja sen vaikutus organisaation ohjaukseen – Case-tutkimus taiteellisen organisaation kokonaisohjauksesta. (Organizational control)	Action-oriented	Management control (management control package framework)
79. SIIVONEN, Salla-Tuulia (UTU, TSE) (2014)	M	Holding all the cards, The association between management accounting, strategy and strategic change. (Strategic management accounting)	Action-oriented	Multiple approaches (strategic management accounting, Actor-Network theory, ANT)
80. LEPISTÖ, Lauri (TAY) (2015)	A	Some Call It ERP: Three Perspectives. (Accounting information systems)	Action-oriented	New institutional theory (NIS)

¹ Publication type (M=monograph, E=collection of essays, A=collection of articles)

² University of Helsinki (UH)

³ Helsinki School of Economics (HSE) (Part of Aalto University today)

⁴ Åbo Akademi (ÅÅ)

⁵ Svenska Handelshögskolan (Hanken), The Swedish School of Economics

⁶ Vaasan yliopisto (VY), University of Vaasa

⁷ Turku School of Economics (TSE) (Part of the University of Turku today)

⁸ Tampereen yliopisto (TAY), University of Tampere

⁹ Lappeenranta University of Technology (LUT)

¹⁰ Jyväskylän yliopisto (JY), University of Jyväskylä

¹¹ Oulun yliopisto (OY), University of Oulu

¹² Actors and business opportunities are at the heart of this study, but as the study features several methodologies, the methodological approach is not so clear cut.