Mapping Management Accounting and Trust

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Mapping Management Accounting and Trust
An extended literature review

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Abstract

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More than three decades ago the notion of trust was introduced into the management accounting (MA) literature, and a growing stream of empirical papers elaborating on the relation between MA controls and trust signals the importance and vitality of this research area. However, a closer look at the literature shows that while major insights have been made, there is also considerable confusion around both research models and the meanings of key concepts. Accordingly, the time seems opportune to conduct an extended and critical review of the legacies of this literature. More precisely, the aims of the study are to (i) analyze how MA and trust have been conceptualized and related to each other; (ii) identify weaknesses and knowledge gaps in the literature; and, (iii) based on these, suggest how the literature may be synthesized and developed in the future.

In so doing, this thesis analyses 37 empirical studies focusing specifically on the association between MA and trust. Overall, two key findings emerge from the analysis. A first key finding is that the area can be characterized as fragmented. More specifically, many different terms are used to denote similar concepts, and vice versa. The literature is also characterized by different levels of analysis, and different, potentially conflicting research models. The literature is also underpinned by different theoretical perspectives, of which some have conflicting assumptions.

The second key finding is that there are several knowledge gaps and weaknesses in the literature. For example, while a majority of studies shows that MA is a factor affecting trust, MA itself is oftentimes left unexplained. Also, many studies conceptualize trust from the perspective of only one party in a relationship, and the questions of how and why MA and trust (co)develops and emerges over time are largely unaddressed. Furthermore, while researchers have empirically studied both personal trust and system trust, respectively, no one has modelled how they may be interrelated.

Based on these findings, a model is proposed which not only synthesizes the extant literature, but also indentifies new, potentially important associations between different MA and trust factors. The model—consisting of twelve propositions—also theorizes how these factors affect each other over time. The thesis concludes with a number of suggestions for how to develop this research area in the future.

Keywords: Management accounting, trust, system trust, control, performance evaluation, interorganizational relationships.

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Getting around in trackless and unfamiliar terrain without a map and a compass is not a problem if you have no purpose or end target, and if you dare to feel lost for a while, as long as you eventually know the way back, or find a place where you know where you are. However, if you aim at something, an end target or a final specified destination, you certainly need a map and compass as well as some navigation skills. In my journey towards a final and finished dissertation, several important individuals have been my map and compass, who all are worthy of being mentioned here.

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Örebro, 21 October, 2012

Gabriella Wennblom

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1 INTRODUCTION

This thesis is an extended literature review on the subject of management accounting and trust. Motivation to undertake such a study is presented in this chapter together with the research questions and purposes.

1.1 The relevance of trust and management accounting practices in and between organizations

The relevance of trust in individuals, organizations and societies is a highly discussed and debated issue in society. The issue of trust often comes to the fore when we fear it is absent (Vosselman & van der Meer-Kooistra, 2009). Today we are witnessing a breakdown in financial systems, bankruptcy in economies and corporate scandals, which make trust a subject discussed both in academic circles and in the society in general. According to Lewis and Weigert (1985), both trust and distrust are functional, in that they reduce complexities and show the right (or wrong) course of action for members in a society. Major corporate scandals and financial crises have also emphasized issues of control in relation to trust (Lampel, 2004). When we hear about distorted accounting numbers, CEO's manipulating or hiding their high bonuses and falsified balance sheets a dynamic spiral of distrust in accounting reports and financial systems starts to spin (Windolf, 2004; Osterloh & Frey, 2004). A decline in trust in accounting reports and financial systems might have several consequences. One such consequence might be that institutions and corporations start to return to 'hard control', based on rules, formal mechanisms and legal enforcement, rather than 'soft control', such as trust, loyalty and informal obligations (Lampel, 2004).

Will a reinforcement of hard control automatically have a negative impact on soft control, such as trust? Will strict emphasis on hard control inevitably rule out soft control and trust-based control mechanisms? Or, is there a middle ground, where both kinds of control mechanisms function side by side, to show the way for society?

These questions have no easy answers, but we can nevertheless observe a clear relationship between soft and hard control, and between different control mechanisms. It might be fruitful to examine how these mechanisms are associated with each other and how they impact each other.

Related to these more general issues of control and trust in society, is the question of trust in accounting practices within and between organizations (cf. Tomkins, 2001, Vosselman & van der Meer-Kooistra 2009). Within and between organizations, accounting is applied as a management practice that utilizes accounting information for different reasons and functions. Accounting practices are often associated with hard control. Consequently, such practices in and between organizations are also the object for trust and distrust, especially in times of crisis and scandal. When issues of distrust come to the fore, when we fear trust is absent, the importance of the restoration and creation of trust in management accounting practices is evident. However, the reinforcement of hard controls, including the tightening of management accounting practices, might instead speed up the spiral of distrust, because too much emphasis on control might undermine trust (Lampel, 2004; Osterloh & Frey, 2004). In the control literature different potential relationships between control and trust have been suggested (cf. Das & Teng, 1998; Möllering, 2005). The relationship between hard control (e.g. management accounting) and soft control (e.g. trust) may not be a strict inverse one as suggested in the reasoning above. Other relationships might be plausible.

This thesis is not restricted to the relationships between control and trust. It takes a broader view and focuses on the relationship between *management accounting* and *trust*. Management accounting has often been conceptualized as a control mechanism, but other types of functions and purposes might be plausible besides control. In this thesis, management accounting is seen as an all-inclusive concept, referring to the different practices, activities, conceptualizations and theoretical perspectives. This broader view implies that management accounting refers to other issues as well as control issues, such as learning and problem solving (Free, 2007), a mechanism for establishing shared meaning (Seal et al., 1999), communication (Langfield-Smith & Smith, 2003), cooperation (van der Meer-Kooistra & Scapens, 2008), coordination (Vélez et al., 2008) and as a change mechanism (Busco et al., 2006).[1]

The motivation to explicitly and primarily research management accounting and trust issues might be several. One such motivation lies in the complex and paradoxical nature of the organizations of today. In order to survive, organizations need to balance both efficiency and flexibility. They need to pursue their plans but also be able to innovate and find newer and other ways to go. Further, organizations need to monitor and control their activities, while cooperating closely both with their own members and with other organizations and stakeholders.

[1] Even though this study is not restricted to control issues, it is partly motivated by the highly debated issue in the control literature concerning the relationship between trust and control.

In this respect, management accounting practices and trust have important roles to play in order to create conditions for cooperation and promote predetermined objectives, as well as to facilitate deviations from plan and create autonomy and discretion (cf. Cäker, 2008; Jørgensen & Messner, 2009). Control activities are of course part of the organizational pursuite of performance and survival, but they are not the only activity organizations need, in order to manage a complex and uncertain environment. Management accounting and trust make organizations take a certain course of action, but also deviate from predicted behavior and actions (Huemer, 1998, 2004). Both management accounting and trust have the potential to account for reductions in uncertainty and complexity (Tomkins, 2001) in order to face the future, act and interact (Sztompka, 1999).

According to Tomkins (2001), trust and accounting information have important connections that should be investigated and taken into consideration when designing and using management accounting. Management accounting and trust also have important consequences for each other and for the way uncertainty is reduced and complexities are managed in organizations.

Consequently, the overall motivation to pursue this thesis lies in the importance of both management accounting and trust in and between organizations and their potential intertwined relationship. The following questions are therefore asked. How are trust and management accounting associated? How have management accounting and trust been conceptualized? How is trust created and maintained based on management accounting practices? What are the consequences of trust and management accounting in and between organizations?

Next, specific research questions and purposes are elaborated on and formulated, which further motivates this study and the subject of management accounting and trust.

1.2 A diffuse understanding of meaning and models - Research problem 1 and Purpose 1

Thus far, trust research in the field of management accounting has studied the phenomenon of performance evaluations between subordinates and superiors in the organization (e.g. Otley, 1978; Ross, 1994; Johansson & Baldvinsdottir, 2003), organizational change processes/implementations (e.g. Busco et al., 2006; Nor-Aziah & Scapens, 2007) and interorganizational relationships (e.g. Seal et al., 1999; Seal et al., 2004). In this literature a diverse array of aspects of management accounting and its relation to trust has been under scrutiny. Different perspectives and theories have been utilized, in different empirical setting. Further, they have all studied trust as an important concept in relation to management accounting.

However, voices have been raised that the management accounting literature on trust is clouded in confusion (e.g. Free, 2008). Three aspects have been mentioned concerning this criticism. First, the area is marked by a lack of clarity in its conceptualizations. For example, many different terms are used when referring to trust and management accounting. For example, while some studies talk about 'outcome control' (Dekker, 2004), others talk about 'reliance on accounting performance measures in performance evaluations' (Otley, 1978), and yet others refer to 'participative budgeting' (Lau & Buckland, 2001). In a similar way some studies refer to 'goodwill trust' (Langfield-Smith & Smith, 2003), while others address 'competence trust' (Emsley & Kidon, 2007). Others use only a specific trust scale to measure trust without any specific trust definition (Ross, 1994). In some studies 'interpersonal trust' is the focus for analysis (Lau & Tan, 2006), while others focus on 'interorganizational trust' (Vélez et al., 2008), and a few instead refer to 'system trust' (Seal & Vincent-Jones, 1997). In addition, trust is used when referring to other phenomena. For example, some use the term trust when referring to a contract between two parties (Chenhall & Langfield-Smith, 2003). Others use proxies for trust such as 'a manager's tenure' (Gibbs et al., 2004).

Second, the area shows great variation in terms of level of analysis. For example, the individual level of analysis (Otley, 1978; Ross; 1994), the organizational level of analysis (Chenhall & Langfield-Smith, 2003) the dyad (Emsley & Kidon, 2007), or the industry (Seal et al., 2004; Free, 2008) are studied and referred to.

Third, the area is characterized by a diffuse understanding of the relationship between trust and management accounting, i.e. the exact nature of the relationship between management accounting and trust is unclear (Tomkins, 2001; Free, 2008; Caglio & Ditillo, 2008; Hartmann & Slapničar, 2009; Meira et al., 2010). For example, trust is both a complement to management accounting (Langfield-Smith & Smith, 2003) and a substitute (Dekker, 2004). Likewise, open book accounting (OBA), seen as a management accounting practice applied between organizations, is associated with both high levels of trust (Seal et al., 1999) and low levels of trust (Free, 2008). Moreover, results indicate that while trust in some studies has been reported to have a moderating effect on the relationship between accounting and non-accounting dimensions (Ross, 1994; Gibbs et al., 2004; Dekker, 2004), in most studies trust has been reported to be a direct cause of management accounting (Otley, 1978) or to be affected by management accounting in an indirect linear way (Lau & Sholihin, 2005).

The divergent use of language, many different terms, derived both from practice and from different theories, a variety of levels of analysis, divergent findings and cross-study differences make the area indeed look fragmented, inconsistent and diffuse. Further, the divergent use of terminology, when actually referring to a similar meaning and phenomenon, may also cause confusion and undermine the dialogue and communication between researchers. The other way around is when the same term addresses multiple meanings. If the same term refers to various phenomena, the confusion around meaning will be even higher. Further, if the same terms are analyzed at different levels of analysis, questions will arise as to whether the term still means the same when the level of analysis changes (Luft & Shields, 2003). Take, for example, trust; does trust analyzed at the individual level have the same meaning as interorganizational trust, analyzed at the organizational level? Or is 'capability trust' analyzed in the dyad the same or different from 'competence trust' that individuals experience within organizations? Overall, confusion around the meaning of factors analyzed at different levels of analysis may not be favorable for dialogue and communication between researchers and will consequently affect our general understanding of management accounting and trust.

At a more pragmatic level, we do not have a clear picture of what kinds of management accounting features influence trust or what trust refers to, i.e. how and why does management accounting affect trust and vice versa? An understanding of the relationship between management accounting and trust can thus be improved if we disentangle and clarify the potentially different meanings of the concepts and further explore how and why these concepts are related. There may be similarities and common grounds that have not yet been identified and described.

Up to this date, there is a lot of different evidence on the matter of management accounting and trust, but little has been done to compare and try to connect the different streams of research in the area. Indeed, there have been several reviews on the subject of management accounting and trust. For example, Free (2008) concludes that studies in the subject of management accounting and trust indicate a lack of clarity in their conceptualization and great variation in their methodological approaches, epistemological foundations and units of analysis. He proposes that trust should be treated with caution and that a more nuanced picture of trust can be produced if different trust types are distinguished in the research.

In the field of accounting and trust, Baldvinsdottir et al. (2011) conclude that in the area there is some research done but '[...] questions and issues remain unresolved'. They further argue that certainty in findings and theory developments is in its infancy. Caglio and Ditillo (2008) and Meira et al. (2010) review the interorganizational accounting area of which trust is one topic. This review concludes that the relationship between management accounting and trust is unclear and that the findings in the area are divergent.

All these review studies have contributed to our knowledge in this area. Free (2008) summarizes the variety of trust conceptualizations and measurement types used in the management accounting literature, which shows what kinds of trust concepts the area has addressed. Baldvinsdottir et al. (2011) point out important topics in the area of accounting and overall issues to take into account when studying trust and accounting. They state that trust serves different roles and functions in accounting practices and that the definition of trust varies.

Overall, Caglio and Ditillo (2008), Meira et al. (2009) and Free (2008) present a rather fragmented picture of the area. Further, Baldvinsdottir et al. (2011) point out the non-agreement in the literature concerning definitions and the non-paradigmatic nature of the area. However, and as I see it, there is still a lack of reviews that deepen this analysis and draw more specific conclusions about what is researched in the management accounting literature, how different studies relate to each other, and if and how research results can be integrated and synthesized, in a more systematic way. By investigating the potential for integrating research results, possibilities for describing a more consistent picture can be traced. By tracing cross-study differences and conflicts between research results, as well as common grounds of knowledge and denominators between research results, we will get an understanding of the possibility for integration and synthesis.

Different perspectives and theories utilize different theoretical mechanisms when explaining relationships between management accounting and trust. Some of these explanations might be compatible, while some might be conflicting. However, integrating and synthesizing the research results might be possible. Consequently, the following research questions are asked: *in respect to the meaning of concepts, levels of analysis, models and theories and perspectives, what do studies have in common? What differences and similarities that have not yet been fully explored can we identify? How can we synthesize the research results in the area of management accounting and trust?*

Purpose 1

- ❖ The first purpose is to describe and compare the meaning of management accounting and trust concepts and the relationships between these concepts, assumption, theories and perspectives in order to identify differences and similarities between studies.

This purpose is accomplished in Chapter 5 (Empirical articles between 1978–2010) and Chapter 6 (Analysis and comparison of meanings, models and theory), by help from Chapter 3 (The Model) and Chapter 4 (Trust). These chapters constitute Part 1 of the thesis.

1.3 A critical review - Purpose 2

The outcome of the process in Part 1 is the categorization of different management accounting and trust factors that refer to a similar meaning and phenomenon. These factors are aggregated into categories, where one overall common feature is identified in each category, i.e. similarities between studies are emphasized.

When emphasizing similarities, what knowledge gaps can we identify in the area? What strengths and weaknesses characterize the area? The overall question here is what kind of general understanding we have of the relationship between management accounting and trust. Based on this question the following purpose is defined:

Purpose 2

- ❖ The second purpose is to critically review the area, i.e. to identifying knowledge gaps and weaknesses in the area, in order to conclude what understanding we have (and not have) for the area.

This purpose is accomplished in Chapter 7 and Chapter 8, and it is based on the conclusions drawn from Chapter 6. Chapter 7 and 8 constitute Part 2 of the thesis.

1.4 Model development - Purpose 3

From the identified weaknesses and gaps in the area, different suggestions can be proposed in order to take our understanding of the relationship between management accounting and trust, and the research in the area one step further, i.e. how can we bridge the gaps and weaknesses identified?

The third and last purpose is therefore defined in the following way:

Purpose 3

- ❖ The third purpose is to develop and describe a model that, where possible, synthesizes the present knowledge and understanding in the area, but also adds to that knowledge, by addressing knowledge gaps and suggestions for how to bridge these gaps.

This purpose is accomplished in Chapter 9, where 12 propositions are presented and elaborated on. This chapter constitutes Part 3 of the thesis.

1.5 The main building blocks of the report

The whole report is organized into three parts and 10 chapters. Generally, the disposition of this report is of a traditional kind, meaning that it starts with an introduction, then discusses the research problem and methodology and ends with the results, discussion and conclusion (Backman, 1998). The chapters are outlined next.

Chapter 1 INTRODUCTION. This chapter introduces the reader to the subject of management accounting and trust and discusses the research problem and purposes.

Chapter 2 METHODOLOGICAL CONSIDERATIONS. This chapter discusses the criteria for choosing articles, presents the main framework for the review (also discussed in more detail in Chapter 3) and introduces the methods of analysis.

<u>PART 1 – MEANINGS, MODELS AND THEORY</u>

Chapter 3 FRAMEOWRK FOR ANALYSIS. This chapter delves into the framework for the review, introducing the concept 'variable' and other important tools for the review, such as 'levels of analysis' and 'variable model'.

Chapter 4 TRUST – A CONCEPTUAL OVERVIEW. This chapter outlines and distinguishes between the trust types found in the general management and organizational literature on trust.

Chapter 5 THE EMPIRICAL MANAGEMENT ACCOUNTING AND TRUST LITERATURE (1978–2011). This chapter summarizes each empirical article according to the four questions or dimensions of coding and analysis. It starts with an introduction and background to the three identified research areas (Map A-B-C).

Chapter 6 MEANING, MODELS AND THEORY – A COMPARATIVE ANALYSIS. This chapter analyzes and compares the meaning of management accounting and trust and models within each research area (Map A-B-C).

PART 2 – CRITICAL REVIEW

Chapter 7 MANAGEMENT ACCOUNTING AND TRUST – A REVIEW. This chapter reviews and elaborates on the main character of each area and identifies knowledge gaps and weaknesses in each.

Chapter 8 A CRITICAL REVIEW OF THE CONSOLIDATED AREA. This chapter reviews the whole area. It elaborates on the relationships between management accounting and trust and identifies strengths, weaknesses and knowledge gaps in the whole area.

PART 3 – MODEL DEVELOPMENT

Chapter 9 TOWARDS A GENERAL MODEL OF MANAGEMENT ACCOUNTING AND TRUST. In this chapter, a synthesis of the literature is presented, i.e. a model and 12 propositions are put forward.

Chapter 10 CONCLUSIONS AND CONTRIBUTIONS. In this final chapter, the main contributions and conclusions are presented.

2 METHODOLOGICAL CONSIDERATIONS

2.1 Epistemological values

This study is guided by two general views and values about scientific research and knowledge. These views have guided the whole study, from choosing the subject, defining the research problem, collecting data material, organizing and analyzing the material and searching for contributions and solutions.

The first value is related to the specific scientific language researchers' use. First, this implies that concepts are constructed by humans. Concepts and definitions are not real in their own sense. Concepts only refer to something that is real and researchers use concepts in order to understand and communicate about reality, i.e. by using concepts researchers ascribe meaning to reality (Babbie, 2007). Further, in order to communicate and facilitate a good understanding, it is favorable if researchers use well defined concepts (cf. Bisbe et al., 2007; Esaiasson et al., 2002). In my view, there can never be a true and definite meaning of a concept, but clarity should be aimed for. This study focuses partly on how researchers have used and defined their concepts. I do not aim to give any definitive or formal definitions of the ultimate meaning of management accounting and trust. I only elaborate on and discuss how researchers, up until now, have conceptualized trust and management accounting.

The second value is related to a firm belief in the fruitfulness of the diversity of approaches, perspectives and theories, with the aspiration of providing a more comprehensive understanding of a given phenomenon. This implies that synthesis and integration acknowledge that every perspective has its limits, but if different perspectives are allowed (if possible) to be combined, a more comprehensive explanation and understanding will be the result.

Moreover, a synthesis may help sort out perspectives that are conflicting or compatible. As Rousseau et al. (2008) argues, this would *"help identify whether differences across research domains are substantive or semantic, indicative of different starting points, disciplinary divergence, or authentic differences in the phenomena studied"* (p. 490) (cf. Luft & Shields, 2003). Consequently, the focus in this thesis is on the compatibility of different perspectives and theories, where diversity is favorable and integration an aspiration. However, at the same time I acknowledge that some perspectives have 'irreconcilable epistemological differences' (Luft & Shields, 2003, p. 171), and are therefore conflicting and competing in their basic forms.

Based on these overall values, a systematic literature review is carried out, aiming at synthesis and integration. Next, the important characteristics of such a study is described and elaborated on in order to point out what type of study the reader can expect.

2.2 Type of study and overall approach

This study can be characterized as an extended literature review, aiming at synthesizing the body of management accounting literature that explicitly elaborates on trust and management accounting (cf. Backman, 1998; Cooper, 1998; Rousseau et al., 2008). The concept integration can be used instead of synthesizing. Here, these concepts have a similar meaning, i.e. *bring together earlier research in a new way* (cf. Backman, 1998; Cooper, 1998).

Consequently, synthesis should here be seen as a method for accumulating, organizing and interpreting research. Synthesis as a method can be categorized in four categories, according to Rousseau et al. (2008). These categories are synthesis by aggregation, integration, interpretation and explanation. Synthesis by aggregation refers to synthesis by statistical meta-analysis. The final product might be a more precise and less biased result than any single study can achieve. In synthesis by integration, studies and methods are triangulated and the final product might be a synthesis of the constructs and relationships between constructs. Synthesis by interpretation might involve the emergence of (new) categories of constructs. The final synthesis product can, for example, be higher-order constructs, not visible in the primary studies. Finally, synthesis by explanation aims at identifying explanatory mechanisms and explaining how they operate. Its final product might be a revised model used to explain a certain phenomenon.

In this thesis, an approach that combines elements from three of the four categories of methods of synthesis is adopted. A statistical meta-analysis has not been carried out because a qualitative method was preferred. Management accounting and trust constructs and their relationships are identified, analyzed and compared (synthesis by integration). These factors are then categorized into higher-order constructs, i.e. groups of factors with similar meanings (synthesis by interpretation). Finally, theoretical mechanisms that might account for the relationship between factors are identified (synthesis by explanation).

From this synthesis, a critical review is then carried out with the aim of identifying strengths, weaknesses, inconsistencies and gaps in the literature. Propositions are then suggested in order to bridge these gaps and weaknesses.

2.3 The Framework – model and methods for analysis

For synthesizing, accumulating, organizing and interpreting the area, a specific framework has been applied. The framework was originally presented in Luft and Shields' (2003). This framework and model is presented here and elaborated on more thoroughly in Chapter 3. In essence, it is an analytic tool that consists of four questions that are asked to the literature. These questions can be seen as constituting the coding scheme or protocol used for data collection, description and analysis (Backman, 1998). These four questions are:

- What is researched?
- What are the directions and shapes of the relationships between factors?
- What is the level of analysis?
- What is the theoretical explanation?

The framework implies a certain perspective and analytic tool, which corresponds to general variable thinking (Esaiasson et al., 2002). General variable thinking or variable language is a set of conceptual tools that disciplines the research work in Esaiasson et al.'s (2002) view. Variable language helps us be more precise in what phenomena we are interested in understanding, i.e. helps us distinguish between phenomena and concepts, and their relationships.

This particular framework was chosen and generated from the overall aim of identifying factors, their meanings and relationships and particular explanations in order to organize and synthesis the research in the field. The framework allows a comparison of studies that use different approaches and methods. The uniqueness and main messages in each study are preserved and similarities and differences between studies identified (cf. Esaiasson et al., 2002). The framework draws out the essential aspects in each study in order to facilitate synthesis.

2.4 Criteria for selection of relevant research

A systematic review must consider the criteria for including and excluding articles and must be defined at the outset of the study (Rousseau et al., 2008).

First, the review will includes peer-reviewed research articles on management accounting and trust. This general aim is in line with the overall research question(s) formulated in Chapter 1, which can be broken down into specific criteria that define the relevant articles more specifically. Articles are chosen based on four general criteria. The first criterion limits the study to the subject of management accounting. The second criterion refers to the decision to include only empirical articles with a theoretical underpinning. The third criterion is related to a visible association between management accounting and trust. The fourth criterion refers to the decision to include only studies of management of organizations. These four criteria are discussed next. Examples of studies that were excluded from the review because of these choice criteria are also provided.

2.4.1 Criterion 1 - Management accounting focus

The focus for the review is management accounting and its practices. Management accounting is seen as an all-inclusive term that has different meanings, ranging from OBA practices and techniques to theoretically defined factors such as output or result control. However, studies must explicitly consider management accounting as a practice applied within and between organizations in order to qualify for the review. Further, financial accounting, auditing or taxation issues are not included.

This criterion has one consequence related to the concept of control. Included in management accounting is the concept control, but only the part of control that refers to management accounting practices, e.g. accounting numbers, management accounting processes and the utilization of accounting information. Usually the term output or result control refers to management accounting practices (Håkansson & Lind, 2004). By contrast, the concept of social control can be defined as trust, or trust per se is seen as social control. In such cases, social control is equivalent to trust, and therefore included in the review. Further, management accounting can be utilized for other objectives. Studies that do not define management accounting as control are of course also included in the study. Management accounting can, for example, be applied as a learning or planning practice within and between organizations.

The discussion in the control and trust literature, related to the highly debated relationship between trust and control (e.g. Das & Teng, 1998, 2001; Möllering, 2005) is relevant here, but in a more implicit way. Studies that discuss the relationship between control and trust and explicitly focus on management accounting practices are included in the review. Studies that only discuss trust and control and do not explicitly focus on management accounting practices are not included. Normally such studies are found outside the accounting area, such as in the organization and management field (e.g. Das & Teng, 1998, 2001).

2.4.2 Criterion 2 - Empirical investigation in focus

Only empirical articles with theoretical support are included in the review. The importance of this is that a theoretical support is given to management accounting and trust and the specific type of relationship based on an empirical investigation. The empirical investigation can be based on a variety of methods. However, what type of methods studies use is not of importance. Of importance is that the phenomenon of management accounting and trust is empirically studied and theoretically underpinned. Studies with different kinds of methods and data are included in the review.

Consequently, theoretical articles without any empirical investigation are not included. Examples of pure theoretical articles in the area are e.g. Tomkins (2001) and Vosselman and van der Meer-Kooistra (2006, 2009). Although, these papers have been influential in the field and a starting point for many empirical studies in the area, articles of this kind are not included in this review per se. The focus in this thesis lies thus in the knowledge created in the interaction between theory and empirics (i.e. management accounting practice).

2.4.3 Criterion 3 - A visible relationship between management accounting and trust

Articles must explicitly consider trust as a concept in relation to management accounting. This means that trust and management accounting must be discussed and elaborated on, in such a way, that it is possible to identify an association and relationship between trust and management accounting. In other words, a relationship must be visible, which can be meaningfully depicted in a model. Consequently, this implies that some articles fall outside this chosen category even though they discuss management accounting and trust in the same article.

One such example is the study by van der Meer-Kooistra and Vosselman (2000) that discusses the effect of different contingent factors on control structures/patterns. Trust is seen as a control pattern and management accounting is part of another control pattern. However, since this study is mainly interested in the effect of different contingent factors on control structures, there is no visible relationship between trust and management accounting. These factors are only modeled as the outcome of other factors. An understanding of the potential relationship between these factors is thus not given to the reader (this is not their aim). Consequently, such types of studies are not included.

The choice to exclude studies such as van der Meer-Kooistra and Vosselman (2000) has one consequence. An understanding of the environment in which 'trust control' and 'accounting control' is most appropriate in accordance with contingency theoretical thinking is consequently not the focus for analysis in this thesis. This is a limitation of this study. Different environments and contexts are not explicitly taken into account.

2.4.4 Criterion 4 - Organizations in focus

Articles must consider management accounting as a practice applied in the management of organizations. The general context is thus organizations. Management accounting practices can, however, been applied both within and between organizations as a practice applied in interorganizational relationships.

One study that falls outside this category is Jacobs and Kemp (2002), who investigate the relationship between traders in Bangladesh and their (non-)use of accounting. Another example is Pahl (2000), who studies the use of accounting and financial information within households and the domestic economy. Both these studies overlook the organizational dimension and are thus not included in the review.

2.5 Identification and search for relevant studies

2.5.1 Choice of journals

In order to find studies that explicitly elaborate on management accounting and trust the choice to search only in accounting journals was made. A search for studies that met the choice criteria was consequently carried out in the most influential journals in the accounting area. Articles were chosen from a top 20 ranking list of accounting journals presented by Lowe & Locke (2006). In this article, individual perceptual rankings/ratings of journal quality are used to assess each journal's standing.

The list of journals chosen was validated by comparing it with the list in Baldvinsdottir et al. (2011). The comparison showed that the same journals had been chosen. Their review includes 'the most influential [top 20] journals in the field of accounting' (Baldvinsdottir et al., 2011, p. 385) and is based on two other ranking studies, namely Ballas and Theoharakis (2003) and Zeff (1996). Ballas and Theoharakis (2003) also assess journal standing through individual perceptual quality assessments. Zeff (1996), bases his ranking on citations, perceptions and library subscriptions. See Appendix A for a list of all journals included in the review.

2.5.2 The search process and methods

When searching for articles within the field of management accounting and trust one problem and complicated issue might be that different terms may capture the same underlying construct (cf. Luft & Shields, 2003; Bisbe et al., 2007; Rousseau et al., 2008). For example, when referring to trust-related issues, some research streams may not use the term trust. Instead terms such as 'social bonds' or 'links' may be used (cf. Håkansson & Lind, 2004). This was acknowledged, when searching for relevant articles. An extra search for management accounting and social links or bonds was thus carried out in two major journals, but no significantly different search results were found. Håkansson and Lind's (2004) article, for example, which predominantly discusses social relationships and does not explicitly use the term trust, was nevertheless identified. Another example is Masquefa (2008), who uses the term 'strong bonds' but was still identified in the search result by the search term trust. The decision was thus taken to only search for trust as a key word and not to complicate the search with other related terms. The term trust is arguably broad enough to include different perspectives on the phenomenon.

In order to find articles that would constitute a relatively complete census of relevant articles, several steps and approaches were taken. The first step was to find articles (published in management accounting journals) that dealt with the issue of trust. This was carried out by searching for articles in each journal with the search word 'trust'. The search was narrowed to abstracts and keywords based on the assumption that the most influential articles in the field can be identified in this way. The original idea and search strategy was to identify a manageable amount of articles that could lead the search forward by pointing out other articles through their references. The search resulted in 185 search hits (see Appendix A).

The next step was to exclude articles that did not fit the inclusion criteria. This was carried out first by the abstract, in order to identify whether the article covered management accounting issues (Criterion 1). Articles focusing on another area, such as taxation or auditing, were excluded. Further, articles that used trust as a term, in an everyday language were excluded. Finally, articles related to the word 'trusts', as in hospital trusts, bank trusts, and trust funds, were also excluded. The remaining articles were related to management accounting and trust. The next step was to sort out articles that fit the remaining inclusion criteria (Criteria 2–4) by reading the full text of papers.

Simultaneously another approach was utilized in order to identify articles that were potentially missed during the first search. This type of approach, referred to as 'the ancestry approach' (Cooper, 1998), make it possible to find studies that were not identified by searching the abstracts and keywords. This method examined articles acquired in the first search and assessed whether they contained references to other still unknown studies. Such references were judged for their relevance, and the new articles were retrieved, read and judged if they fit the inclusion criteria.

As a result of these processes and approaches, 37 articles met the inclusion criteria. See Appendix B for the number of articles selected in each journal. In the reference list, each article included in the review is marked with an asterisk (*).

These 37 articles constitute the group of studies relevant for this study. However, an important limitation of this search strategy and method is that some articles may still be missing and excluded from the study. One scenario is that articles with different perspectives, models and concepts were overlooked, which makes the whole picture of the area not differentiated enough. The best scenario is that missing articles only confirm what studies included in the review have concluded. However, it is my belief that the overall conclusions and contributions of this study will be approximately the same even if a different study was identified and included.

The relatively low number of hits (185) provided a manageable amount of articles compared with the search of full texts. For example, in AOS the number of search hits, when search for 'trust' was 459, and when narrowing the search to 'management accounting and trust', the corresponding number was 447. In total, that gives more than 3000 articles (see Appendix A for this search result). Intuitively, not all these articles are relevant for this study. For example, many of these hits include articles that only use the word 'trust' in everyday language.

In the end, the group of studies included in the review make up a relatively complete census of articles that are relevant for the chosen research problem and framework.

The number of search hits was validated by comparing with Baldvinsdottir et al.'s (2011) search hits. In the field of management accounting, they identified 89 primary papers that they define as contributing to the knowledge on trust and management accounting. These 89 articles consequently fit Criterion 1, which is related to the subject of management accounting and trust. By excluding articles according to the Criterion 2–4, for example theoretical papers, we can assume that approximately 40 articles is a valid number of relevant articles. Next, the way studies were organized is described.

2.6 Organizing the area in maps

The centre of attention, in Luft and Shields' (2003) framework, is the graphical map, which allows a visual presentation of research results. The graphical map, or mosaic of research results, consists of all exemplars of individual studies. It thus allows a comparison between studies but still preserve each one's uniqueness (Rousseau et al., 2008). In this thesis, graphical maps were created in order to visualize and organize the literature at the outset.

The literature (37 articles) was organized into different maps. The idea was to categorize studies that referred to a similar overall phenomenon. A comparison between research results, both within and between these maps, was then allowed. Three overall and general phenomena were identified and categorized into three maps (Map A, Map B and Map C; see Appendix C). The graphical maps describe each article graphically, according to questions 1-3 (see Chapter 2.3), i.e. the factors and their relationships and the levels of analysis are visualized in the maps.

The first phenomenon refers to the utilization of management accounting in day to day practices within organizations (Map A). The second refers to the utilization of management accounting in day-to-day practices in interorganizational relationships (relationships between organizations) (Map B). The third refers to implementation and change of management accounting (Map C). The grouping of articles was thus based on a general notion of the phenomenon studies focused on.

2.7 Methods of data collection and analysis

For synthesizing, accumulating, organizing and interpreting the area different procedures and methods were carried out depending on whether the management accounting meaning, the trust meaning or the relationships between factors was the focus for analysis. Next, each method and its challenges is described.

2.7.1 Management accounting meaning

A qualitative classification analysis (cf. Esaiasson et al., 2002) was carried out with the objective of identifying core attributes, i.e. the important features of management accounting dimensions. When the features were identified, they were grouped together in specific categories that shared common management accounting themes (cf. Bisbe et al., 2007; Boyatzis, 1998). In other words, higher-order constructs were created in order to capture the domain and overall meaning of factors referring to a similar phenomenon (cf. Bisbe et al., 2007).

Chapter 5 identifies and describes the core attributes/features of management accounting, while Chapter 6 further identifies these higher-order constructs.

The procedure of identifying core attributes/features is best characterized as a qualitative classification process, where articles were read over and over again in order to grasp the features of management accounting. The features were identified by looking for attributive adjectives that describe the characteristics of the management accounting factor a study was elaborated on in relation to trust. Features such as 'fair', 'specific', 'clear' or 'participative' were identified. These features were then categorized when they shared a common theme, i.e. higher-order constructs were created.

This process was challenging for different reasons. When reading the articles, I looked for answers to the questions 'what management accounting phenomenon does the specific feature belong to?' and 'what management accounting phenomenon can be described as 'fair', 'specific', 'clear' or 'participative'?'. The challenge was to look behind everything that seemed to be proxies for something. I reflected on what studies were elaborating on, i.e. which dimensions of management accounting were driving the relation with trust or were related to trust in a certain way.

For example, Otley (1978) talks about a superior's 'use of the budget'. However, I identified that the most important feature of management accounting in relation to trust in the Otley study does not refer to 'use' but to 'perceptions of information'. Accounting information is perceived as more 'incomplete' compared with non-accounting information, according to Otley (1978). I therefore assume that a superior's 'use of the budget' is actually a proxy for a more generic theoretical feature of accounting information. Six overall categories of management accounting were finally identified and constructed.

According to Rousseau et al. (2008), the process of identifying higher-order constructs can be a highly interpretative process where an open coding procedure is used to identify categories that emerge. The imagery and themes that surface across studies are then compared. These higher-order constructs are not evident in the primary studies. This process was a challenge due to the difficulty and importance of not being too general or too specific related to the level of abstraction. Higher-order constructs should aim to capture the domain of the features identified, be mutually exclusive and theoretically meaningful. This type of procedure demands structure, systematization, creativity and reflection at the same time (Boyatzis, 1989).

In other words, to look with a magnifying glass but also use helicopter vision, namely to look close, take a step back and look at the total from a distance. In Chapter 6, these higher-order constructs are described. In Chapter 7 and 8 they are then associated with different trust types and the relationships between the factors are theoretically elaborated on and underpinned.

2.7.2 Trust meaning

Another approach was used when elaborating on the meaning of trust. First, I outlined different trust types and trust meanings in the general management and organizational literature, and consequently arrived at a classification scheme (Chapter 4). I then compared the trust concepts in the management accounting literature with my classification scheme to conclude what trust referred to in the management accounting literature. The process can be described as a translation process, were the trust terms found in the management accounting literature were translated with help from the theoretical framework described in Chapter 4.

The complicated issue in this part was that many studies do not elaborate on the definition of trust in any depth. For example, many studies only briefly refer to a certain trust concept or trust scale. When studies only briefly refer to a certain trust concept, I compared this concept with the trust literature in Chapter 4 to identify the specific meaning. When studies use the term trust without any definition, but use a certain trust scale, the measurement questions asked to measure trust were analyzed and consequently the trust meaning derived.

Studies' specific trust meaning are analyzed in Chapter 6. In Chapter 5, only the specific trust label studies refer to is identified. This can be compared with the meaning of management accounting, which is more directly derived from reading each article and consequently spelled out, described and analyzed in Chapter 5, which describes what management accounting refers to and mean. Chapter 6 analyzes the meaning of trust.

Figure 2.1 shows how the description and analysis of each article was carried out in Chapter 5, before a more thorough analysis is presented in Chapter 6. As shown in Figure 2.1, trust refers to the term 'trustworthiness' and management accounting refers to the specific meaning of highly visible management accounting information. In Chapter 6, the 'term' trustworthiness is further analyzed, elaborated on and compared with other trust terms or scales.

What & How	Variable Meaning/level of analysis	Why	Theory
Visible MA information about cooperation and performance will cause parties to observe and reflect about others performance and cooperation efforts, and consequently attribute cooperation to parties' inherent trustworthiness, which consequently leads to trust between parties. MA $\longrightarrow$ T	**MA:** 'perception of MA information' [visible] **Trust:** trustworthiness **Level:** dyad	When collaborators cooperate in the presence of a control system, observers are likely to attribute this control-induced cooperation to collaborators' inherent trustworthiness.	Agency theory (AT) and psychology; framing & attribution theory

Figure 2.1 *Example of the description of one article, taken from Chapter 5*

2.7.3 Type of relationships between factors - model types

The procedure used to describe the specific model in each study can best be described as a qualitative reading of the main points made in the study. The articles were read thoroughly in order to decide on their main factors and relationships between factors. In some articles, I faced a challenge when trying to establish the specific model, while in other studies a more straight forward analysis took place. When a graphical description of the model was included in the article or when a specific relationship between factors was statistically investigated, the challenge to assess the particular model was considered less problematic. This can be contrasted and compared with qualitative case-oriented studies, which typically do not represent their study with any graphical figures. Qualitative case-oriented studies with rich descriptions of the specific case (and without any graphical figures) needed a thorough and time consuming reading. Some studies investigate many factors in often complex relationships. In these types of studies, there may be different potential ways of describing factors and their relationships. I used quotations to support the way I describe the study and its model.

Some opponents have argued that a model representing specific factors and their relationships, does not do full justice to all types of studies. For example, qualitative case studies with rich descriptions of a specific phenomenon may be hard to capture in a model. Further, because such studies tend to emphasize the richness and depth of a certain context the context might get lost in a specific model, i.e. 'context stripping' (cf. Rousseau et al., 2008). Its primary advantage, however, is that the essential aspects are able to come to the fore, which makes it possible to compare research results across different datasets and methods. Moreover, these type of studies do not suffer any large losses if the main content is put forward or main substance is characterized, as long as an argumentation or justification for the chosen model or main content is offered. On the contrary, many times it might be favorable for such studies to be depicted in a more precise way.

Variable language does not have to imply an idea or concept about a strict deterministic cause and effect relation. Variables and their relations are in this thesis only seen as a tool for structure, organization and clarity, concerning 'what' a study is about and 'how' these 'whats' are related. Overall, the variable language might actually be a useful tool if we want to bridge the gap between quantitative and qualitative research traditions or if we aim to understand and interpret this specific language and thinking in a more general way. In the next chapter, issues related to variables and their relationships are discussed in more detail.

3 FRAMEWORK FOR ANALYSIS

In this chapter the relationship between trust and management accounting factors will be depicted by means of Luft and Shields' (2003) framework. Overall, Luft and Shields' mapping structure aims to answer four questions that go hand in hand with general variable language/variable thinking (cf. Esaiasson et al., 2002). According to Esaiasson et al. (2002), a general variable language helps researchers be more precise when they describe or explain the phenomena of interest, distinguish concepts and phenomena and make relations between different concepts/phenomena more precise.

Here, variable language/variable thinking can be understood as 'a technique [to use] in order to bring structure and order [...] and to acquire developed and precise analytic tools [...]' (Esaiasson et al., 2002, pp. 237–238, author's translation). In order to concretize this thinking/language in this study, in a useful tool, four questions are asked to the data material (i.e. the empirical articles). These questions are (cf. Luft & Shields, 2003):

1. What is researched?
2. What are the directions and shapes of the relationships between factors?
3. What is the level of analysis?
4. What is the theory?

Answers to these questions bring out and characterize the main content or substance in each article in terms of 'what', 'how' and 'why'. The 'what-question' addresses what factors a study focuses on such as what is researched and what is the level of analysis. 'What' refers to the kind of factors that are considered a part of the explanation, understanding or description of the social or individual phenomenon of interest. The 'how question' refers to how different factors are related. According to Whetten (1989), the 'how question' adds order to the conceptualization by explicitly delineating patterns. Further, the 'why question' addresses the question why factors are important and why the relationship between factors has a particular form and shape. 'Why' concerns the underlying dynamics that justify the selection of factors and relationships between them; 'it is the glue that holds the model together' (Whetten, 1989).

Whetten (1989) also emphasizes, in line with Luft and Shields (2003), that the more complex the relationship under consideration, the more useful it is to graphically illustrate it. A visual representation often clarifies the author's thinking and increases readers' understanding. One way of graphically illustrating the author's thinking is to use boxes for the 'what' element and arrows for the 'why' element. In this thesis, the aim is to map research in the area of trust and management accounting. The directions and shapes of the relationships between trust and management accounting are thus graphically illustrated, throughout the thesis. In this chapter, the meaning and implication of the main elements in Luft & Shields' framework are described in more detail.

3.1 'What' - what is researched and what is the level of analysis?

3.1.1 What is researched?

The general answer to the question 'what is researched?' is what a study is about in terms of its variables and their relationships. According to Luft and Shields (2003), a variable is 'a factor whose change or difference you study' and it connotes a specific phenomenon. A variable is thus something that varies (Babbie, 2007).

In line with Luft and Shields' reasoning, the term variable and its generalized meaning is used in this study when referring to what a study is about. Here, the graphical maps provide answers to the question 'what is researched in the area of management accounting and trust'.

Different research investigates different variables. The variety of variables may be large and choice of variables may differ substantially between studies and research areas. Examples of variables researched in the area of management accounting and trust are participative budgeting, budget-based performance evaluation, output control, interpersonal trust, interorganizational trust. These particular variables are related to each other in different ways. For example, some studies assess the direct effect of the perceptions of management accounting information on interpersonal trust and job-related tension (e.g. Lau & Tan, 2006). These perceptions vary along different dimensions and thus affect trust differently. Other studies explore the mutual effects of trust and management accounting, which are assumed to affect each other over time in a mutual reinforcing way (e.g. Vélez et al., 2008).

Different research fields may use the same variable name for unrelated phenomena. In such cases research must be aware of the different meanings in similar looking variables (Luft & Shields, 2003). However, if these different variables describe the same phenomenon from the perspective of different theories, that categorize and name it differently, there is more reason for research in one stream to take account of the results produced by research in other streams (Luft & Shields, 2003).

Theoretical features

A researcher gives a variable a meaning by addressing its constituent parts composed of theoretical features or the properties of the domain of the variable (Babbie, 2004; Bisbe et al., 2007). This way of defining variables dates back to the Aristotelian view of giving a thing its essential parts (Corbett & Conners, 1999). Other ways of defining variables might be to cite synonyms, give examples or give extended descriptions (Ibid; Esaiasson et al., 2002). The aim in all these cases is to show what falls in the domain of the concept and what falls outside. Theoretical features or properties are attributes, aspects or characteristics that constitute a variable, or through which a variable is manifested. If features are directly observable, they are indicators of a variable. If the features are not directly observable, they are dimensions of the variable of interest (Bisbe et al., 2007).

In this study the features of management accounting are explored in the empirical management accounting literature. This implies that the meaning of management accounting in each study is established by disentangling the features a study has elaborated on. When it comes to trust, specific features are not explicitly disentangled in order to show what studies mean by trust. Instead, a theoretical framework is elaborated on, where different trust categories are found in the trust literature. This framework is used as a lens to compare the trust types found in the management accounting literature. The meaning of trust in the management accounting literature is thus illuminated through this lens and not directly by disentangling the theoretical features (see also the discussion in Chapter 2.

Different variables can have the same name and can capture similar but not identical phenomena. For example, 'output control' may refer to accounting information (Dekker, 2004) or to implementation of management accounting processes (Chenhall & Langfield-Smith, 2003).

Further, variables with different names may capture similar phenomena (using different terms). For example, 'control' (Coletti et al., 2005) and 'performance evaluation' (Lau & Sholihin, 2005) may both refer to features of information such as 'clear' and 'specific' accounting information. By disentangling the theoretical features of a variable, the specific meaning a study ascribes the phenomenon under investigation can thus be illuminated and established (Luft & Shields, 2003; Bisbe et al., 2007). In the next part, different types of partially shared meanings are outlined.

Practice-defined and theory-defined variables

Theory-based empirical research on management accounting and trust uses variables derived either from practice or from theory (cf. Luft & Shields, 2003). Usually, practice-defined variables include specific formal techniques (e.g. budgeting and OBA), applications of these formal techniques (e.g. using OBA for planning or control) and the particular features of broader systems (e.g. participative budgeting) (Bisbe et al., 2007).

A practice-defined variable can denote multiple phenomena with different links between variables (Luft & Shields, 2003; Bisbe et al., 2007). For example, OBA can, on one hand, refer to the general use of the technique as such (e.g. the use of OBA for control), while, on the other hand, refer to specific information features of accounting information as such (e.g. objective).

A practice-defined variable often shares its meaning with one or more theory-defined variables but does not have an identical meaning with any of them (e.g. the theory-based variable 'budget-constrained performance evaluation style' shares its meaning with the practice-based variable 'financial performance measures' because both variables refer to accounting figures). When a practice-defined variable is used, it is favorable if the theoretical features of the construct are disentangled by elaborating on their theoretical features and identifying what individuals and organizations are influenced by (Luft & Shields, 2003; Bisbe et al., 2007).

A theory-defined variable is normally derived from a particular theory and is usually defined in terms of other theory-based variables (Bisbe et al., 2007). A typical theory-defined variable is at the generic level such as reliance on accounting performance measurement, type of control (output, result or social control) or type of information. Different theory-defined variables can share meanings with each other, e.g. budget-based performance evaluation (Map A) shares meaning with output control (Map B), because both variables refer to features of accounting information. Variables with the same or similar names can appear at different levels of analysis. These variables share meanings but are not necessarily identical. This aspect is elaborated on next.

3.1.2 What is the level of analysis?

A variable is a factor whose change or difference a researcher aims to capture. A researcher may be interested in individual differences, organizational differences, subunit differences, industry differences, network differences and so on. Where the difference is manifested is here referred to as 'the level of analysis'.[2] A variable and its change or difference can be stu-

[2] According to Rousseau (1985), researchers usually use the term focal unit when referring to the level where the researcher wants to capture the change or difference. In this thesis, the term 'level of analysis' is used, in accordance with Luft and Shields' (2003) terminology.

died at a single level or at multiple levels. Every variable a researcher examines is tied to a certain level, e.g. the individual level, organizational level, subunit level or industry level. No variable is level-free (Klein et al., 1994, p. 198). The level of a variable is the level where the variable is manifested according to the theoretical explanation, i.e. the known level of the phenomenon under investigation (Klein & Kozlowski, 2000, p. 27). Accordingly, where the change occurs or where the variable's variation of interest is visible is determined by the relevant level of analysis.

An individual level variable represents a variation of interest across individuals; hence, the variable is manifested at the individual level. An organizational level variable represents cross-organizational level variation in features and the variable is thus manifested at the organizational level.

For example, 'organizational size' is a feature of an organization and this variable cannot vary across members of an organization. An organizational member cannot be 50 or 150 (Klein et al., 1994). When the level of analysis is the organization, one assumes that individuals within the organization are similar with respect to the variable in question. One does not need to refer to individuals at all, but only to the organization as a whole (Klein et al., 1994). An example of an unmistakable individual level variable is 'individual age'. Individual age is a feature of an individual but not of an organization. 'Job-related tension' is also often considered an individual level variable. Theoretically, job-related tension can also be a feature of the subunit if it is presumed to vary between subunits. In such a case, 'group tension' must be conceptualized and measured instead. Although individuals are used as sources of data, they are treated as a group; the researcher is not interested in individual answers per se, and thus the answers are aggregated by using, for example, group mean[3].

The level of many variables is often unclear or ambiguous. Organizational size and individual age are extreme examples of variables where the level is unmistakable.[4] Variables with the same or similar names are sometimes studied at different levels. In such cases, it is unclear if a variable at one level shares meaning (or not) with a variable at a different level. For example, does performance evaluation and trust at an individual level share meaning with performance evaluation and trust between two organizations analyzed at a dyadic level? What is the meaning of performance

[3] The source of measurement (e.g. individuals) is called the level of variable measurement. If the group mean is used to analyze group responses, the group mean is called the level of data analysis in Luft and Shields' (2003) terminology.

[4] These types of variables are called 'global constructs', in Klein & Kozlowski's (2000).

evaluation and trust at a dyadic level in contrast to that at the individual level?

According to Rousseau (1985, p. 7), a major issue in research is whether isomorphism exists among similar looking variables at different levels. Isomorphism means that similar looking variables at different levels share the same theoretical content, features and construct validity across levels (Klein & Kozlowski, 2000, p. 30). Isomorphism is based on the assumption that all individuals perceive, for example trust, along the same set of features, i.e. trust is shared in the collective (e.g. the group or the organization) (Ibid, p. 62). If, for example, a researcher argues that homogeneous trust perceptions can be aggregated to represent trust as a feature of the dyad, he or she assumes that interpersonal trust and interorganizational trust have the same meaning. Many phenomena a researcher examines have their theoretical origins in the cognition, affect, mental states and behavior of individuals, but emerge and come to be shared and manifest as higher-level phenomena (Kozlowski & Klein, 2000, p. 28). In such cases, isomorphism exists between variables at lower and higher levels.

Finally, if a study models a relation between variables at a specific level, then it is important to ensure that the model is valid for that specific level of analysis. Relationships between variables at one level should not be confused with relationships between variables at other levels.[5]

3.2 'How' - What are the directions and shapes of the relationship between factors?

This question concerns the form and shape of the relationship between variables, which can be described by explicitly stating how they are connected with each other. This is stated in a specific model. Graphically this can involve connecting boxes (what) with arrows (how) in a specific way. Luft and Shields (2003) refer to the 'causal model' when describing the how element. In this thesis the term variable model is used when referring to the 'how' element. According to Luft and Shields the term 'cause' can have both a generalized and a specialized meaning. In their article, 'cause' has a generalized meaning, which connotes 'explained relations' between variables as opposed to observed but unexplained associations.

In this study, variables and their modeled relations also have a general meaning and do not imply some deterministic universal physical science laws (universal generalizations about classes of facets) (Babbie, 2007). According to Babbie, laws explain nothing; they only summarize the way

[5] This problem is referred to as misspecification or the fallacy of the wrong level in Rousseau's (1985) terminology.

things are. Explanations, on the contrary, are a function of theory. Theories are systematic sets of interrelated statements intended to explain some aspects of social life; different theories explain phenomena in different ways. For example, one theory can explain the phenomenon management accounting change, using a direct linear relation between two variables, while another theory may explain the same (or at least a similar) phenomenon using a much more complex interactional relationship between many different variables in a mutual reinforcing way. Thus, different theories explain relationships in different ways, even if they explain a similar phenomenon.

This view goes hand in hand with the general variable thinking/language described in Esaiasson et al. (2002). According to Elster (1986), there are three types of scientific explanations: cause and effect, functionalistic and finality explanations (see also Arbnor & Bjerke, 2009). Some studies may assume different explanations when studying management accounting and trust, some try to decide upon a strict causal relation while others seek a final relation, or may not even try to settle a specific relation at all. However, I do not take a stand against or for any particular explanation. I understand that there are different types of explanations and only try to establish the specific variable meaning as well as how variables might be related in a general way. In this respect, the variable language is seen as an analytical tool in order to bring out and characterize the essential content in each study. Next, different types of variable-models will be described.

3.2.1 Different variable models

Different types of models describe the relationship between variables. Each model is valid under certain conditions. These relationships between variables are thus restricted to specific conditions (Luft & Shields, 2003).

The first model, the additive model (Fig. 4.1, No. 1), has two independent variables (X_1 and $X_{2)}$ that each affect the dependent variable (Y). The value of X_i itself is not conditional on Y or any other X_i.

The second model, the intervening variable model (Fig. 3.1, No. 2), has one intervening variable (X_2), which has a direct effect on Y. The value of X_2 is dependent on the value of X_1, which has a direct effect on X_2. The effect of X_1 on Y thus occurs on the condition that X_1 affects X_2 and X_2 in turn affects Y.

In the third model, the independent variable interaction model (Fig. 3.1, No. 3), two independent variables interact to affect the dependent variable (Y). How much X_1 affects Y is conditional on the value of X_2 and how much X_2 affects Y is conditional on the value of X_1. Each X_i has a causal influence on Y.

In the fourth model, the moderator variable interaction model (Fig. 3.1, No. 4), the moderator variable (MV) has no influence on Y in the absence of X_1 as well as no influence on X_1. The moderator variable only operates by *changing the effect* of X_1 on Y.

In models 1–4, the relation is unidirectional from X_1 to the other variables. In the fifth model, the cyclical recursive model (Fig. 3.1, No. 5), there is a time interval between the change in X_1 and the corresponding change in X_2 as well as between the change in X_2 and the corresponding change in X_1 that follows.

In the sixth model, the reciprocal non-recursive model (Fig. 3.1, No. 6), all X_is are determined simultaneously or the time span is too short for the influence in different directions to be notable. In models 5 and 6, the relation is thus bidirectional: X_1 affects X_2 and X_2 affects X_1.

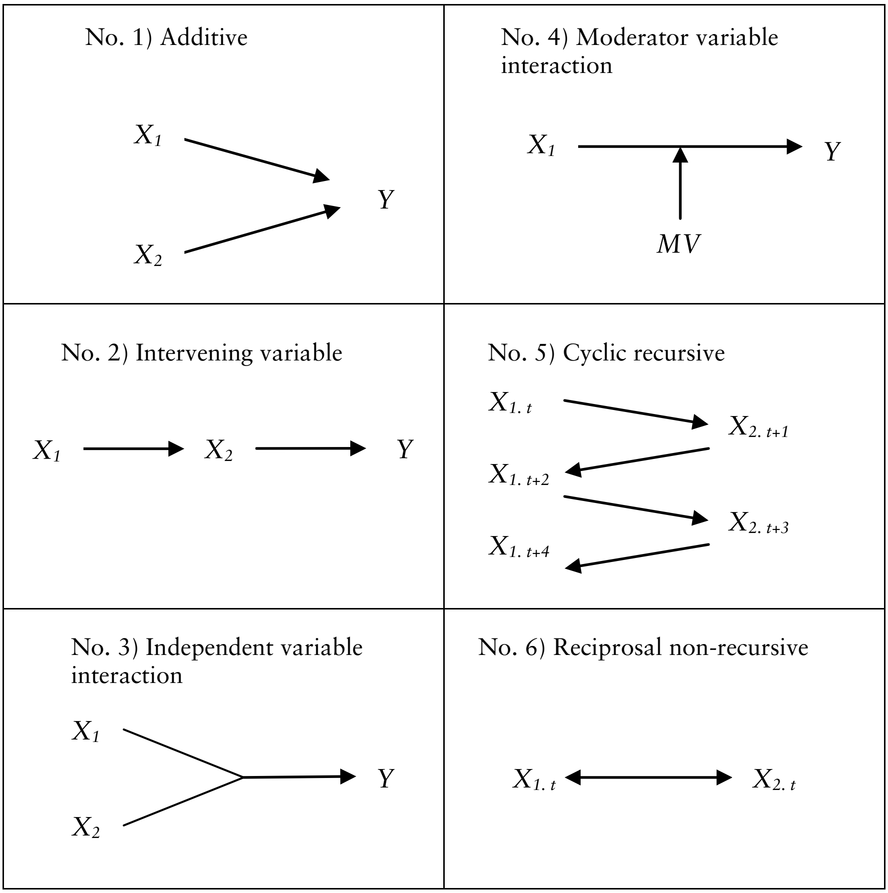

Figure 3.1 *Variable model forms (Luft & Shields, 2003).*

Further, relationships between variables can have a positive or a negative sign. An unbroken arrow indicates a positive sign. A dotted arrow indicates a negative sign:

Positive: X ——▶ Y

Example of a positive relation: Trust ——▶ Job satisfaction (a high trust level is associated with high levels of job satisfaction)

Negative: X - - - - -▶ Y

Example of a negative relation: Trust - - - - - -▶ Job related tension (a high trust level is associated with low levels of job-related tension)

3.2.2 Variable model forms in conflict

Variable models can be in conflict with each other or not. Luft & Shields (2003) make the following example. If, for example, one observed event is a result of two earlier events, then this relation can be modeled in three different ways: 1) the two earlier events and their effects are independent of each other (an additive model), 2) the first event results in the second event that in turn results in the third event (an intervening variable model) and 3) the influence of the first event on the third is much larger in the occurrence of the second event than in the absence of the second event (an interaction model). If, for example, the interaction model is the correct description of a specific phenomenon, are the two other models, the additive and intervening variable models, in conflict with the interaction variable model? Or if the intervening variable model is the correct description of the specific phenomenon, are the interaction and additive models in conflict with the intervening variable model? Identifying valid connections among variables requires understanding when these variable model forms are in conflict with each other and the consequences of using an invalid variable model form (Luft & Shields, 2003).

If different streams of research describe relationships between specific variables (uses the same sets of variables) with several different variable model forms, then questions arise about the validity of all these research results, especially if models are in conflict with each other (Ibid).

Additive models vs. intervening variable models

A two-variable additive model ($X_1 \rightarrow Y_1$) is not in conflict with an intervening variable model ($X_1 \rightarrow X_2 \rightarrow X_3 \rightarrow Y_1$). The intervening variable model just complements the two-variable additive model with non-conflicting information (X_2 and X_3). For example, in an additive model the independent variable budget-based performance evaluation leads to the dependent variable stress. However, in the intervening variable model, the intervening variables mediate the effect of the budget-based performance evaluation on stress, e.g. participative budgeting and trust mediate the effect of budget-based performance measures on individuals' mind and behavior, leading to reduced stress (Luft & Shields, 2003).

An additive model (see Figure 3.2) that predicts that two independent variables (X_1 and X_2) together have an independent influence on Y is in conflict with an intervening variable model that predicts that ($X_1 \rightarrow X_2 \rightarrow Y_1$). In the intervening variable model, the effect of X_1 on Y occur on the condition that X_1 affects X_2 and X_2 in turn affects Y. In the additive model X_1 and X_2 independently affect Y. X_1 and X_2 are thus independent of each other in contrast to the intervening variable model where the value of X_2 is dependent on X_1. If, for example, two independent variables such as environmental uncertainty (X_1) and asymmetry in bargain power (X_2) independently affect the choice of control structure (Y) (an additive model), then asymmetry in bargain power has no effect on environmental uncertainty and thus environmental uncertainty cannot function as an intervening variable (Ibid).

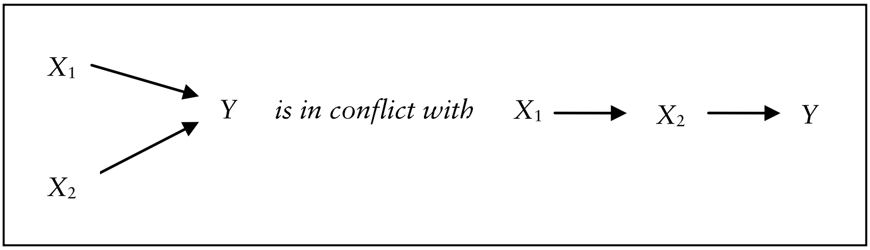

Figure 3.2 *An additive model in conflict with an intervening variable model. (Luft & Shields, 2003).*

Additive models vs. interaction models

An *interaction model* could be in *conflict* with an *additive model* if the relation between X_1 and X_2 is interactive and an additive model is used instead. When an additive model is used and X_2 is constant and when the evidence is collected to support this additive model, then the conclusion about the $X_1 \rightarrow Y$ relation is only valid at that level of X_2; the additive model is context-dependent, with the level of X_2 as the relevant context. If X_2 is not held constant and is included (or omitted) as an additive (not interacting) variable, then the effect of X_1 on Y is a *weighted average* of the different X_1 effects that occur at different levels of $X_{2.}$. To exclude X_2 as an interaction variable if the relation is interactive is a problem if the interaction is disordinal.[6] If the interaction is ordinal then the changes in X_2 change the magnitude and not the sign of the effect of X_1 on Y. Thus, if the sign of the $X_1 \rightarrow Y$ relation is positive, then X_1 will increase Y at all levels of X_2, and individuals choosing more X_1 without regard for the level of X_2 will receive an increase in Y that is larger or smaller than expected but will not (on average) receive a decrease in Y. If the interaction is disordinal however, then X_1 increases Y at some levels of X_2 and decreases it at other levels; thus, ignoring a disordinal interaction can have more unexpected effects (e.g. reducing performance when an increase in performance is expected) (Luft & Shields, 2003). For example, stress is associated with high levels of budget-based performance evaluation only when task uncertainty is high; when task uncertainty is low, stress is associated with a low level of budget-based performance evaluation. If this interaction is ignored and an additive model is used instead (i.e. the variables are treated as independent variables), then the interaction effect between budget-based performance evaluation and task uncertainty (high levels of budget-based performance evaluation will lead to stress only when task uncertainty is high) will not be detected (Figure 3.3).

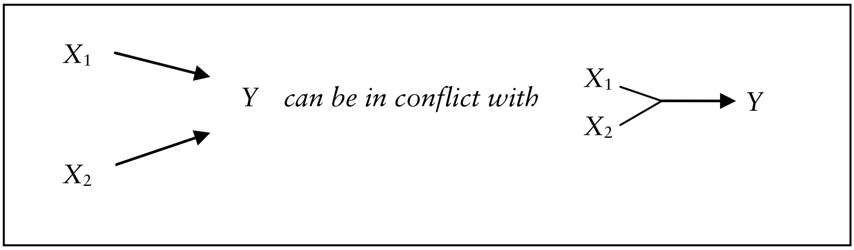

Figure 3.3 *An additive model in conflict with an independent variable interaction model. (Luft & Shields, 2003).*

[6] An ordinal interaction occur when the strength, but not the sign of the relation, between the independent and dependent variables depends on the level of another independent or moderator variable. A disordinal interaction occurs when the sign of the relation between the independent and dependent variables depends on the level of another independent or moderator variable (Covaleski et al., 2007).

Intervening variable models vs. interaction models

Intervening variable and interaction models are conceptually different, which means that they represent different conditional relations, which could be problematic if they are used at the same set of data. In the intervening variable model, the effect of X_1 on Y occurs on the *condition* that X_1 affects X_2 and X_2 *in turn* affects Y. In the interaction model X_1 and X_2 *interact* in affecting the dependent variable Y. *How much* X_1 affects Y is thus *conditional* on the value of X_2 and how much X_2 affects Y is *conditional* on the value of X_1 (Figure 3.4).

For example, if stress is associated with high budget-based performance evaluation only when task uncertainty is high, then budget-based performance evaluation cannot independently affect stress through task uncertainty as a mediating variable, because the effect of budget-based performance evaluation is conditional on the value of task uncertainty.

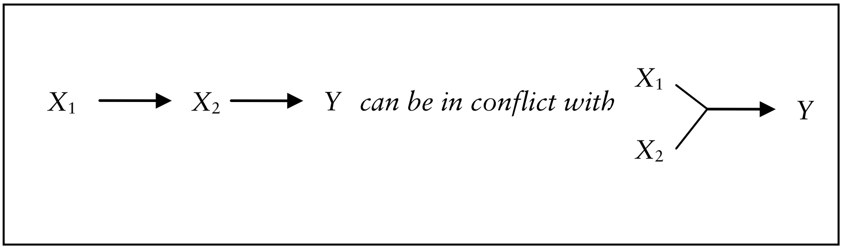

Figure 3.4 *An intervening variable model in conflict with an independent variable interaction model. (Luft & Shields, 2003).*

Interaction independent variable models vs. moderator variable models

In the interaction independent model, the variables X_1 and X_2 have an influence on Y, while in the moderator variable model the X_1 variable has an influence on Y and the moderator variable moderates the effect of the X_1 variable. It is thus important to distinguish between '*influence on*' and '*moderates the effect*'. In the independent variable interaction model, the independent variable has an *influence* on Y. Further, in the moderator variable model the moderator variable just *moderates* the effect of the independent variable on the dependent variable. A variable such as trust can function as an independent variable that influences a dependent variable or it can function as a moderator variable that just moderates the effect of an independent variable. These two models are in conflict with each other if they are used on the same data or describe the same phenomenon (Figure 3.5).

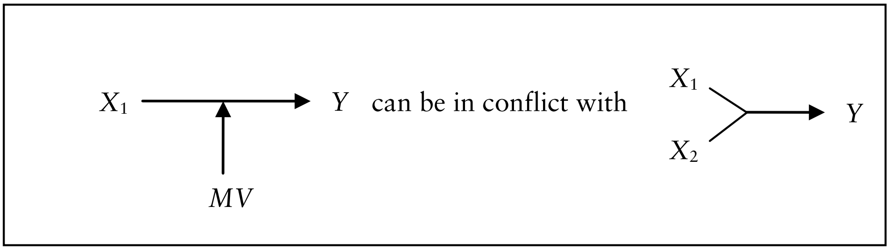

Figure 3.5 A moderator variable interaction in conflict with independent variable interaction model. (Luft & Shields, 2003).

3.3 'Why' - what is the theory?

The explicit model that guides research in a particular study may consist of only a few variables. For example, participative budgeting leads to improved organizational performance. Underlying this model is a more complex explanation of how and why the relationship between participative budgeting and performance occurs (how, why, where and when does participative budgeting influence performance?), i.e. what are the underlying dynamics and mechanisms that validate the choice of variables and the proposed relationships between them (Whetten, 1989)? Or as Whetten also express it: 'what is the theoretical glue that holds the model together?' (Ibid, p. 491).

Different theoretical perspectives may use the same or similar variables, but they differ in the underlying explanation of how and why variables influence other variables. Theoretical perspectives could for that reason be inconsistent with each other, even though the same or similar variables and the same or similar variable model are used (Covaleski et al., 2007). For example, two studies of Map B use the same variables, OBA and trust, and the same type of variable model. However, their underlying theoretical explanation differs because of different theories: one study applies structuration theory while the other draws on transaction cost economics (TCE). This means that the underlying explanations probably differ between these two theories.

Further, different theoretical perspectives may provide explanations at different levels of analysis. Psychology theories provide explanations primarily at the individual level and the small subunit level. The contingency theory of organizations provides explanations at the organizational and large-subunit level. Economic theories focus on both the individual level and higher levels. Sociology theories often focus on beyond-organization variables (Luft & Shields, 2003).

For example, studies of Map A mainly analyze variables at the individual level, while studies on Map B foremost analyze variables at the dyadic level. Thus, different theories also explain phenomena at different levels. A consequence of variables being analyzed at different levels is that variables with the same names may not have the exact same meaning. They may have the same features or content but the functional specification might differ. For example interpersonal trust, based on rational reasons, may have similar features and dimensions as interorganizational trust if a researcher conceptualizes the latter as a shared unit variable (Kozlowski & Klein, 2000). This means that all individuals perceive trust along the same set of dimensions, i.e. trust is conceptualized as shared in the collective (the interorganizational relationship).

Theories arise from different social science antecedents. A social-science antecedent can include different theories and share the same underlying assumptions about individual volition, rationality, equilibrium and speed of influence. On the contrary, theories from different social science antecedents rarely share the same assumptions. Different assumptions place limitations on the use of variable model forms. Consequently, variable model forms in conflict may be due to social science antecedents and theories with different assumptions[7] (Luft & Shields 2003; Covaleski et al. 2007). For example, economic theory in general assumes that organizations adopt the management accounting system that is optimal for them. Optimal means that that the system has a positive effect on organizational performance. This assumption implies that all management accounting systems in all organizations are optimal which generates high performance effects. Thus, there cannot be any studies examining performance effects of these systems, because there are no such *performance effects differences* between organizations. The limitation economic studies place on their variable models is thus that they can only capture causes of management accounting and not its effects, because there are no differences in effects between organizations (see Luft & Shields, 2003; Ittner & Larcker, 2001).

The next section discusses issues concerning when and why studies are competing, compatible or non-competing, which is related to the meanings of variables, explanations and assumptions. Whether studies are identified as compatible (or not) will be an important determinant of synthesizing the research results (or not).

[7] If the conflict is not just due to different variable meanings.

3.4 Competing, compatible and non-competing studies

3.4.1 Competing explanations of the same phenomenon

Studies that are considered *competing* have according to Covaleski et al. (2007) different (mutually exclusive) explanations for the same phenomenon and two competing explanations cannot be valid at the same time.

Luft and Shields (2003) discuss the following example in order to demonstrate the issue of competing studies. One study and explanation assumes that any type of competition leads to optimal[8] management accounting use (an additive linear model). Another study and explanation assumes that only a specific type of competition leads to increased profit (i.e. optimal management accounting use), while another type of competition leads to decreased profit (a disordinal interaction model). These models are in conflict, because they have different assumption about equilibrium and about when management accounting is optimal, i.e. in what kind of competition management accounting is optimal. The first study assumes that management accounting is optimal in any kinds of increased competition, while the second study assumes that management accounting is not always optimal, because under a specific type of competition *profit decreases*. A consequence of this assumption is that the equilibrium is disturbed or that the system sometimes is out of equilibrium. This assumption leads to the consequence that organizations do not always implement optimal management accounting systems, i.e. they sometimes use *suboptimal* management accounting systems. They use systems for other reasons than economic profit/performance (e.g. symbolic use) or systematic judgment and decision errors can result in the use of management accounting in a way that does not maximize profit/performance. Consequently, these two studies have competing explanations of the same phenomenon because different theories have different assumptions about equilibrium and rationality, which constrain the explanations of phenomena and thus place limitations on the variable model form (Luft & Shields, 2003; Ittner & Larcker, 2001).

When two studies use two different variable model forms in obvious conflict[9] (and variables are the same), they are competing. Different (com-

[8] Optimal means that management accounting is assumed to have a positive performance effect.

[9] 'In *obvious* conflict' means a visible conflict, namely when two variable model forms and shapes are apparently in conflict. There can also be conflict between underlying theoretical explanations, but these are less obvious and not visible in the type and shape of the variable model.

peting) theoretical perspectives use different (conflicting) variable model forms; when these different variable model forms are in conflict, it is not clear how to resolve these inconsistencies. Covaleski et al. (2007), for example, state that researchers need to investigate which explanation (if either) is valid.

3.4.2 Compatible explanations of the same phenomenon

Compatible studies, according to Covaleski et al. (2007) are studies that have different explanations for the same phenomenon but whose underlying assumptions are not in obvious conflict with each other and the assumptions can be modified to fit into a more general model. Hence, these different explanations can be integrated.

For example, economic explanations of the function of motivation in incentive systems relies on the assumption that individuals are motivated solely by monetary, tangible, measurable rewards (i.e. extrinsic rewards), while social psychology can see that other rewards are important such as self-fulfillment, autonomy or opportunities for growth (i.e. intrinsic rewards) (see Merchant et al., 2003). Combining these two explanations demands a broader model/explanation of the motivational part of the incentive system, which takes into consideration both extrinsic and intrinsic rewards.

Compatible studies do not have variable model forms in obvious conflict with each other, but their explanations can still be inconsistent with each other, because the underlying process explanation differs. Process explanations are intimately connected to the level that the explanation refers to. That is why explanations often differ, because they clarify differences or variations at the different levels a researcher wants to make statements about or, capture differences among (e.g. individuals, groups, organizations, industries, markets or societies). Different explanations at different levels are consequently intimately connected to the fact that individuals, groups, organizations, industries, markets or societies may respond or act differently to the same event, characteristic or feature of a variable. However, it can also be the other way around. In homologous multilevel models, variables and the relationships linking them are generalizable across levels (Rousseau, 1985). For example, a relationship between two variables holds at the individual, group and organizational level. The threat rigidity model by Staw et al. (1981) is conceptualized as a homologous model. Individuals, groups and organizations respond to threat in the same way at all three levels; at all three levels, threat restrict information flow and narrow the behavioral and response repertoire (see Rousseau, 1985; Morgeson & Hofmann, 1999; Klein & Kozlowski, 2000).

3.4.3 Non-competing studies

Finally, non-competing studies do not refer to the same phenomenon, even if they have the same variable name, and thus do not strive to explain the same phenomenon. Non-competing studies are therefore not conflicting. If variables and their meaning are not consistent across studies, they do not refer to the same phenomenon and should consequently not be compared based on compatibility (Luft & Shields, 2003, p. 201; Covaleski et al., 2007, p. 613).

In sum, non-competing studies have different meanings and thus do not address the same phenomenon. Competing studies are those with mutually exclusive explanations of the same phenomenon, which means they have different irreconcilable assumptions. Compatible studies are those with the same or different assumptions and different explanations, but their perspectives can potentially be combined in several ways.

Consequently, taken together, this reasoning about the compatibility of studies makes it relevant to explore and investigate different theoretical assumptions. Such analysis will be carried out in the forthcoming chapters, in addition to variable meanings, models and explanations.

4 TRUST - A CONCEPTUAL OVERVIEW

Much has been written about trust, especially in disciplines such as sociology, psychology and philosophy. In other disciplines such as business management, marketing and organization, there has been a growing interest in the concept of trust. During the 1980s and at the beginning of the 1990s, this conceptualizing developed significantly, followed by a growing number of empirical studies in the late 1990s (Möllering, 2006). In the field of management accounting, the explicit examination of trust has thus far been scarce but enriching (Free, 2008).

Among the more theoretical work carried out on the subject of trust, one can find literature reviews covering much of the research in the field (see Sztompka, 1999; Möllering, 2006; Nooteboom, 2002; Blomqvist, 1997; Huemer, 1998; Lane & Bachmann, 1998; Rousseau et al., 1998; Kramer & Tyler, 1996). In these reviews, the concept of trust is thoroughly illuminated. Influential work, early and later research, empirical work and more theoretical studies are the objects of reviews, and these reviews offer insights into different types of trust, different theoretical perspectives on trust, antecedents of trust, preconditions for trust, consequences of trust, manifestations of trust that altogether form a rich picture of trust. Different research journals have published many special issues covering different themes on trust see: *Academy of Management Journal* Vol. 38 No.1 (1995), *Academy of Management Review*, Vol. 23 No. 3 (1998), *Academy of Management Review* Vol. 23 No. 1 (2003), *Organization Studies* Vol. 22 No. 2 (2001), *Journal of Managerial Psychology* Vol. 19 No. 6 (2004).

4.1 A common definition of trust across disciplines

This chapter starts with a common definition of trust in different research disciplines. In their analysis of the meaning of trust across disciplines, Rousseau et al. (1998) come to the unexpected (as they put it) result that the composition of trust (fundamental elements of its definition) was indeed 'not so different after all' across disciplines. Rousseau et al. (1998) define trust as *'a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another'*. Trust is thus, the mental state of expectations held by a trustor (the one who trusts). Expectations can be seen as expectations of the intentions and behaviors of another (the trustee). Not only individuals but also collective or even non-human entities can be seen as trusting or trusted actors as long as it is possible to ascribe expectations and actions to them (Möllering, 2006). Trust needs a trustor and a trustee who are able to interact within a social system (Ibid).

It is further important to observe, as Möllering (2006) does, that trust must not be confounded with *the bases* from which it is reached. Trust can be based on rational reasons (e.g. attribution of trustworthiness), on psychological causes of affect, on institutional rules or routines and on reflective communication (Nooteboom, 2002; Möllering 2006). The different bases from which this 'psychological state' is reached constitute the foundation for the different trust types outlined in this chapter. These different trust types constitute a framework that is used as a theoretical lens to analyze the meaning of trust in the empirical management accounting literature.

Further, the relevance of trust is based on underlying conditions, which also seem to be agreed upon across disciplines (Rousseau et al., 1998; Möllering, 2006). Among these conditions are risk,[10] vulnerability and interdependence. Risk should not be interpreted as a probability calculation where probabilities of alternative outcomes can be estimated; rather it should be understood *as uncertainty*, where neither the alternatives nor the probabilities are known by the actors (Tomkins, 2001; Möllering, 2006). Talking in terms of probability, uncertainty means that there is always *a probability of loss* (Nooteboom, 2002; Rousseau et al., 1998), of which the trustor is fully aware. In other words, an uncertainty whether the other intends to or will act appropriately. The trustee can harm the trustor, who cannot be sure whether this will happen or not. In this specific situation, the trustor is said to be *vulnerable*. However, the trustor's own action partly determines whether or not the trustee will actually harm him or her. The actions of the trustor and trustee are thus *interdependent* (Luhmann, 1979). The trustee and trustor are autonomous in that their states of mind and actions are not fully determined. Actors thus have the freedom to choose whether they want to trust or not. Finally, the trustor and the trustee are also embedded in a social context, which influence their behavior and actions towards each other (Möllering, 2006).

In sum, trust can be defined as a psychological state of an actor, and to reach this state the underlying conditions of uncertainty, vulnerability and interdependence between actors must be present. There are various forms of bases from which trust is reached, which are outlined next.

[10] Trust and risk are often discussed in the literature. See Nooteboom (2002), Möllering (2006) and Mayer et al. (1995) for a thorough examination of the concept of risk in relation to trust. In this thesis, risk is understood in terms of uncertainty.

4.2 Trust perspectives

Trust can take various forms depending on the different bases from which it is reached. In this section, different trust concepts are outlined. The aim is to grasp different trust types in order to be able to identify and analyze the meaning of trust variables in the management accounting literature.

4.2.1 Rational trust reasons

The most common ground for trust is the trustor's estimate of *the trustworthiness* of the trustee (Möllering, 2006; Sztompka, 1999). Trustworthiness is estimated in a more or less rational manner where another person's inherent characteristics (i.e. features that the trustee may be said to possess) are assessed (Sztompka, 1999; Nooteboom, 2002). According to this perspective people are involved in different trust ratings and as a result, attain some level of *cognition-based trust* (Sztomkpa, 1999), *calculus-based trust* or *knowledge-based trust* (Nooteboom, 2002). These trust types are presented in this section.

Trust in a trustee can for example be a function of a trustee's perceived ability, benevolence and integrity, as proposed by Mayer et al. (1995). Other indicators of trustworthiness can also be identified in the literature such as competence, openness, caring and reliability (Mishra, 1996). Inherent in the trustworthiness perspective is that such indicators are applied consciously by rational trustors when choosing whether to trust or not (Möllering, 2006). Critical voices about the trustworthiness perspective argue that this approach does not provide a proper definition of trust, since what is defined is *trustworthiness* and not trust. It is just assumed that trust is the same as perceiving someone as trustworthy (Ibid).

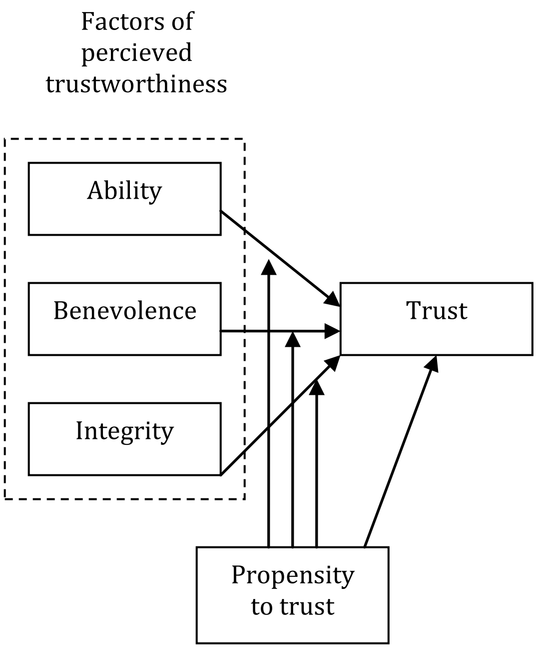

Figure 4.1 *Indicators of trustworthiness leading to trust. (Mayer et al., 1995)*

Figure 4.1 describes how trust is dependent on a person's perception of trustworthiness and propensity to trust. Parties process information about each other in order to decide how much risk to take in a relationship with others i.e. to what extent they can trust each other (Schoorman et al., 2007).

Early trust research, for example Rotter (1967), considers trust only from the perspective of a person's general willingness to trust others i.e. a person's propensity to trust (a dispositional view of trust in contrast to trust based on a relationship, where it varies within person and across relationships). Rotter's (1967) trust scale has been widely used, but it focuses only on a generalized trust of others. Trust is defined as a personality trait that is inherent in a person and which people carry on from one situation to another (Lewis & Weigert, 1985). This trait leads to a generalized expectation about the trustworthiness of others. In Mayer et al.'s (1995) model 'propensity to trust' is incorporated as a component that corresponds to the inherent traits that lead to a person's general propensity to trust others (Mayer et al., 1995; Schoorman et al., 2007). However, Mayer et al.'s (1995) full model allows trust to vary (dependent on the perception of trustworthiness, which varies between persons and in different relationships) but can also be dependent on the person's disposition to trust.

When people weigh up others' trustworthiness, they conclude whether to trust or not in a rational or calculative way based on knowledge or information. This seems to have caused a rational type of trust conceptualization, which use different terms but has a similar meaning.

Calculus-based trust

In calculus-based trust, trust is based on calculative cognition and perception. Trusting involves expectations about another based on calculations that weight the cost and benefits of certain courses of action to either the trustor or the trustee. It is based on the view of human as a rational actor, while rationality is understood in utilitarian terms where the individual chooses the course of action likely to gain his or her maximum utility. This type of trust is most often found in transaction cost economics (TCE) and agency theory (AT). According to Zucker (1986), an element of calculation may be present in most trusting behavior. Compliance with calculus-based trust is often ensured both by the rewards of being trusted and by the threat that if trust is violated, one's reputation can be hurt (Lewicki & Bunker, 1996).

Knowledge/competence based trust

This trust form is grounded in others' predictability – knowing the other sufficiently well so that his or hers behavior is anticipatable (Lewicki & Bunker, 1996). Knowledge-based trust builds on the idea of trust, emerging from prior contacts, based on the premise that through ongoing interaction, parties learn about each other and develop trust (Gulati, 1995; Huemer, 1998). Knowledge-based trust relies on information, which improves and thus enhances trust. According to Huemer (1998), knowledge-based trust is primarily calculative and rational in nature. Blomqvist (1997) refers to a concept she calls competence-based trust, which is in line with knowledge-based trust.

Cognition based trust

Cognition-based trust is trust based on a cognitive process that discriminates among persons that are trustworthy, distrusted or unknown. Cognitive trust builds on environmental predictability (Lewis & Weigert, 1985; McAllister, 1995) and thus involves a degree of cognitive familiarity with the object of trust that is somewhere between perfect knowledge and total ignorance (Luhmann, 1979). We cognitively choose whom we trust in which respect and under which circumstances, and we base this choice on what we take to be good reasons, constituting evidence of trustworthiness (Lewis & Weigert, 1985). Ring's (1996) fragile trust is in line with McAllister's (1995) cognitive trust. Fragile trust allows economic actors to deal with each other, but in guarded ways.

These three types of rational trust bases seem to have much in common. They can all be said to depart from a cognitive and rational process, where knowledge or information is used to assess the inherent characteristics of the trusted party in order to attain trust. In the literature, there is no agreement on whether these types of trust are the same. According to Lewicki and Bunker's (1996) three-stage model, calculus-based trust precedes knowledge-based trust (which precedes identification based trust) (se next section). However some other literature suggests that calculus-based trust and knowledge-based trust are the same (e.g. Nooteboom, 2002; Tillmar, 2002). In order to 'perform a calculation' with the purpose to assess a partner's trustworthiness, one has to have knowledge. Knowledge-based trust and calculus-based trust can thus be said to fall into the same category. Cognition-based trust falls into the rational trust category, as it has rational (cognitive) processes in mind.

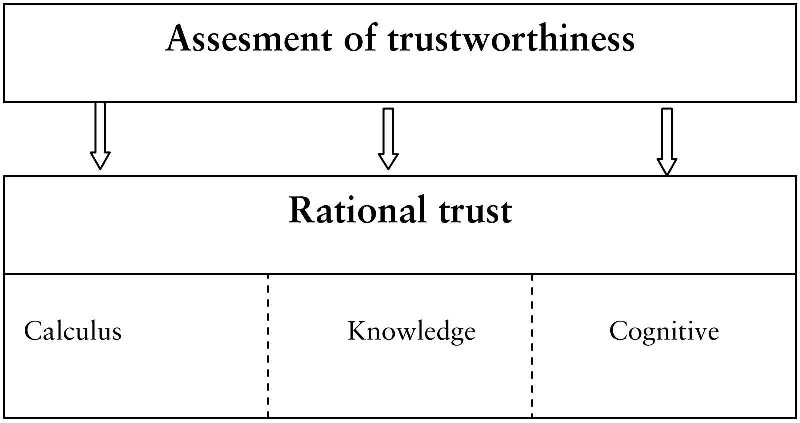

Figure 4.2 *Rational trust factors*

Figure 4.2 describes the rational trust category, which includes the dimensions of trustworthiness and calculus-, knowledge and cognition-based trust. The 'walls' between the different trust types have broken lines, which indicate that different concepts are close in meaning to each other.

4.2.2 Emotional trust reasons

Besides cognitive aspects, reasons to trust can also be based on emotional aspects (Möllering, 2006). This view emphasizes that social bonds between people are important for trust (Huemer, 1998). Positive affect for the object of trust can bring about trust. Further, according to some writers cognitive reasoning would not be possible without emotions. According to Lewis and Weigert (1985), trust is a mix of feeling and rational thinking.

> Trust succeeds where rational prediction alone would fail, because to trust is to live as if certain rationally possible futures will not occur. (Lewis & Weigert, 1985)

Emotional forms of trust derive from emotional and affective bonds between individuals and genuine care and concern for the welfare of partners (McAllister, 1995). Emotional trust is in place when the way of seeing the one trusted is affectively loaded (Jones, 1995). The positive affect becomes an interpretative lens that interferes with the trustor's cold cognitive assessment of the other's trustworthiness (Möllering, 2006). The literature presents many concepts of emotional trust. In this section, identification - based trust and relational trust are presented. These two concepts seem to be among the most common in the category of emotional trust alongside affect-based trust (McAllister, 1995), resilient trust (Ring, 1996) and goodwill trust (Blomqvist, 1997).

Identification-based trust

Identification-based trust occurs when people have taken on the needs and desires of others as personal goals, and act in ways that consider joint gains. This trust type is thus based on identification with other's desires and intentions (Kramer & Tyler, 1996; Lewicki & Bunker, 1996). Trust exists because the parties understand and predicts the other's needs, choices and preferences and also share and appreciate the same needs and preferences (Lewicki & Bunker, 1996).

Relational-based trust

Rational trust derives from repeated interactions over time between the trustor and trustee. Reliability and dependability in previous interactions with the trustor give rise to positive expectations about the trustee's intentions. Emotion enters the relationship between the parties, because frequent longer-term interaction leads to the formation of attachments, based upon reciprocated interpersonal care and concern (Rousseau et al., 1998).

4.2.3 Rational trust vs. emotional trust

In the literature, there is no consensus whether rational trust and emotional trust are the same, different or related in some way. According to many writers, emotional trust is distinct from rational trust (e.g. McAllister, 1995). On the contrary, others state that rationality and emotions are less distinct (e.g. Lewis & Weigert, 1985; Nooteboom, 2002). Nooteboom (2002) argues that when we assess a person's trustworthiness, we mix feelings with rational reasoning. Thus, a trustor's perception of a trustee's trustworthiness has both emotional and rational cognitive elements. McAllister (1995) separates cognition-based trust from identification-based trust, but argues that when cognition-based trust is high, identification-based trust is also high. Lewicki and Bunker's (1996) three-stage model explains the relation between calculus-based, knowledge-based and identification-based trust as a process of sequential iteration. By 'sequential', the authors mean that an achievement of trust at one level enables the development of trust at the next. In contrast to McAllister's model, different trust types replace each other instead of functioning beside one another.

In this thesis, rational trust and emotional trust are for analytical reasons separated. This follows Huemer (1998) and Möllering (2006) which separate rational trust (strategic trust) from emotional trust (passionate trust). Figure 4.3 presents an overview of the main differences in characteristics between the rational and emotional trust.

Rational trust	Emotional trust
Calculative	Emerging
Cognitive	Affective/emotional
Fragile	Resilient
Self-interested	Based on mutual concern

Figure 4.3 *Characteristics of rational and emotional trust concepts (based on Möllering, 2006; Huemer, 1998)*

In sum, two distinct trust categories have been outlined: rational and emotional trust. An explicit distinction between these two categories has been made, even if there are some arguments claiming not to separate them. In each category, different trust concepts can be found. In the category of rational trust, the concepts of calculus-, knowledge- and cognition- based trust can be seen to be similar to each other in meaning.

4.3 Objects of trust[11] - Personal trust vs. System trust

For analytical reasons, it is important to separate the bases of trust from the question of whom or what should be *the object* of trust. People base their trust on something (trust bases) and put their trust in someone (people) or something (e.g. a system).

Related to different object(s) of trust, it is relevant to separate trust between a trustor and a trustee (i.e. a form of personal trust) and the trust that actors can have in the systems or institutions (i.e. system trust). Luhmann (1979) was the first to introduce the term system trust, referring to trust that individuals have for a certain institution or system.

Figure 4.4 describes these two dimensions, namely trust based on two types of bases and trust in two types of objects. Bases from which trust is reached include emotions, while the object of that type of trust could be a person. However, trust in systems is probably based on rational reasons more than it is based on emotional reasons. According to Lewis and Weigert (1985), trust in systems is based on a ‘presentational base’ that makes sure that the system is presenting itself as trustworthy in the eyes of the trustor (see also Goffman, 1959; 1967; Giddens, 1991). Emotional content is largely absent in system trust (Luhmann, 1979).

[11] See Nooteboom (2002) for a thorough examination of different objects of trust.

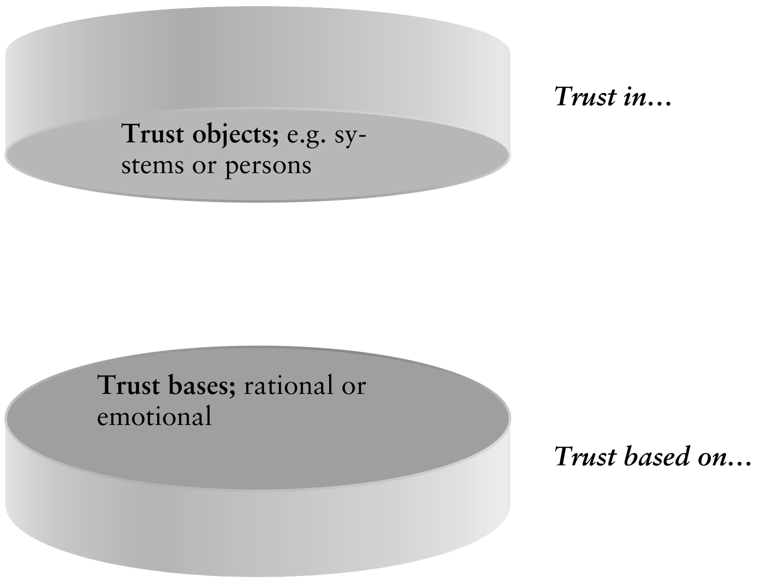

Figure 4.4 *Trust bases and trust objects*

4.4 A process view of trust

A process view of trust implies that trust can be built gradually. In this respect, we can find two lines of research: one where actors are passive carriers of the process (unreflective process; Zand, 1972) and one where actors are active creators of the process (reflective active process; Giddens, 1994). The passive view is summarized next, with some references to influential models of the trust process. The active view is outlined after, with specific reference to Giddens (1994).

4.4.1 Unreflective process of trust

From *the unreflective process view*, research concentrates on different types of trust and its development over time in a dynamic process. Zand (1972) states that trust leads to more trust and distrust to more distrust. The disclosure of information, acceptance of influence and exercise of control are seen as having feedback relationship with trust. Zucker (1986) highlights the trust process by referring to a process-based type of trust, where trust develops gradually. Lewicki and Bunker (1995) also note that trust develops gradually and grows with mutual experience in relationships over time (see their three-stage model).

4.4.2 Reflective process of trust

From *the reflective and active trust perspective*, trust is not taken for granted at the outset. Imagine a situation where you end up on an unfamiliar planet. You have no clue where you are or what you are going to face. Then suddenly, an alien is standing there, right in front of you. How are you going to confront him? What can you expect from him? What are you going to say? In spite of the lack of different trust bases (your reasons and your routines are not usable on this planet), you have to confront him - you have to make the first move. Here, the concept of active and reflective trust of Giddens (1994) is pertinent. According to the reflective view, actors must actively work on trust in order to start the trust process and maintain it (Giddens, 1994). The trust process is an ongoing process of reflexivity. Reflexivity of trust means that the trust process is influenced by knowledgeable actors but also that the process influences the actors as well. Every move is a first move because the basis for trust needs to be constantly reproduced in order to result in a stable or at least continuous relationship. This requires continuous communication and openness.

Another concept close to the active and reflective trust concepts is the as-if approach, which is also relevant when the setting is unfamiliar and when the context is lacking reliable institutions. We start to trust because we choose just to do it in order to overcome rational and institutional vacuums. Actors do not need nor can they trust each other fully right from the beginning; they rather engage experimentally in this kind of as-if trust, which may gradually produce genuine trust. Actors overcome, at least momentarily, the irreducible uncertainty and vulnerability in the situation. Actors interact with each other as if ignorance, doubts and dangers that exist alongside knowledge, convictions and assurance can be set aside, at least for the time being (Möllering, 2006).

In sum, this chapter has outlined two categories of trust: a rational and emotional type. Trust is based on rational reasons or emotions and affective content. The object of trust must be separated from the bases from where trust is reached. Objects of trust can be persons or systems. Further, trust can be conceptualized as a process. From a process perspective trust is seen as either a reflective active processes or a passive stage-wise process. In different contexts and different empirical settings, these different trust bases can play a role, alone or together, as bases for reaching the mental state of trust that comprises the intention to accept vulnerability (Rousseau et al., 1998).

4.5 Summary and Conclusion

Trust is generally defined as a psychological state including the willingness or intention to be vulnerable based upon the positive expectations of the intentions or behavior of another party (Rousseau et al., 1998). This implies that trust leads to a set of behavioral expectations among people, allowing them to manage the uncertainty associated with the situation (Jones & George, 1998). Making oneself vulnerable means taking a risk (Mayer et al. 1995). This also implies that trust makes it possible for people to act in situations involving risk or uncertainty about future contingency (Zucker, 1986; Mayer et al., 1995; Schoorman et al., 2007). Hence, trust can be seen as an uncertainty absorption mechanism (Tomkins, 2001). Different situations, tasks and contexts entail different levels of uncertainty and risk, implying that the specific context, situation and task must be taken into account when trust states are formed.

Further, trust can be seen as relationship-based and hence varies between relationships and individuals (Schoorman et al., 2007; Jones & George, 1998). A personal disposition to trust, i.e. a general willingness to trust (independent of context or situation) (see Rotter, 1967), is not a sufficient explanation for why people trust (see Mayer et al., 1995, for a critique). A trustor has varied levels of trust in various trustees. The trust variance must be dependent on something more than a personality trait (e.g. background, ethnicity or culture). In the trust literature, the question of why people trust is discussed by looking at the attributes of the trustee, i.e. those factors that form perceptions of trustworthiness. These factors are assumed to vary between individuals, organizations and systems (Mayer et al., 1995; Schoorman et al., 2007).

The characteristics of the trustee are perceived by the trustor and they inform the trustor about the trustworthiness of the trustee. According to Mayer et al. (1995), three factors seem to be more salient: integrity, benevolence and ability. Ability refers to the trustee's skills, competencies, expertise and characteristics that enable a party to have influence within a specific domain (Mayer et al., 1995). Benevolence refers to the extent to which a trustee is believed to want to do good to the trustor (Mayer et al., 1995). Integrity refers to the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable (Mayer et al., 1995). In sum, trustworthiness perceptions work as a foundation for the development of trust.

When deciding upon a trustee's trustworthiness individuals go through a cognitive (rational) information process, i.e. information must be processed in order to make a cognitive decision to trust or not. Here, trust is reached by considering or evaluating the characteristics of the trustee (cf. Zucker's

(1986) characteristic-based trust mode). Further, trust is produced and formed through repeated interactions, i.e. the development of social bonds through a process that takes past and future expectations about interactions into account. Here, the literature has introduced emotions and affect as important bases for trust next to cognition (Lewis & Weigert, 1986; Mc Allister, 1995; Jones & George, 1998).

Thus, different modes of trust, i.e. different bases for trust development can be found in the trust literature. Discrimination between different bases makes it possible to distinguish between trust types. Related to the definition of trust as a psychological state, involving a willingness to be vulnerable, the specific mental state is reached due to different underlying factors that analytically can be distinguished. Here, a rational and emotional type of trust is of major importance.

Finally, it is meaningful to separate the bases of trust from the question of whom or what should be the object of trust. Objects of trust can be individuals or systems (system trust).

5 THE EMPIRICAL MANAGEMENT ACCOUNTING AND TRUST LITERATURE (1978–2011)

Empirical trust research in management accounting (abbreviated to MA in the tables presented in this section) has investigated three general phenomena: performance evaluation within organizations, interorganizational control and accounting/organizational change. In all these areas trust has been an important concept to explain the relationships between individuals and organizations and related to different features of management accounting. Individuals and organizations are affected by management accounting, i.e. management accounting processes, accounting information and how people use management accounting information and systems in certain ways. How people in and between organizations perceive management accounting is thus important when it comes to trust between people and organizations as well as for the functioning of and trust in management accounting in and between organizations.

Articles included in the review are categorized in one of the three areas. Each area is mapped, according to Luft & Shields' (2003) framework (see Appendix C). The area of performance evaluations within organizations is labeled Map A. The area of interorganizational relationships is labeled Map B. And the area of implementation and change is labeled Map C. All citations are listed in Figure 5.1.

A Performance evaluation		B Interorganizational relationships		C Implementation/change	
A.1 Otley, 1978 A.2 Ross, 1994 A.3 Magner et al., 1995 A.4 Lau & Buckland, 2001 A.5 Johansson & Baldvinsdottir, 2003	A.6 Gibbs et al., 2004 A.7 Lau & Sholihin, 2005 A.8 Lau & Tan, 2006 A.9 Lau et al., 2008 A. 10 Sholihin & Pike, 2009 A.11 Hartmann & Slapničar, 2009 A.12 Sholihin et al., 2011	B.1 Seal & Vincent-Jones, 1997 B.2 Seal et al., 1999 B.3 Groth & Merchant, 2000 B.4 Langfield-Smith & Smith, 2003 B.5 Dekker, 2004 B.6 Håkansson & Lind, 2004 B.7 Coletti, et al., 2005 B.8 Mouritsen & Thrane, 2006 B.9 Cuganesan, 2006 B.10 Emsley & Kidon, 2007	B.11 Free, 2007 B.12 Free, 2008 B.13 van der Meer-Kooistra & Scapens, 2008 B.14 Vélez et al., 2008 B.15 Langfield-Smith, 2008 B.16 Neumann, 2010 B.17 Cäker & Siverbo, 2011 B.18 Johansson & Siverbo, 2011 B.19 Jeacle & Carter, 2011	C.1 Chenhall & Langfield-Smith, 2003 C.2 Seal et al., 2004 C.3 Busco et al., 2006	C.4 Coad & Cullen, 2006 C.5 Nor-Aziah & Scapens, 2007 C.6 Masquefa, 2008

Figure 5.1 *All articles included in the review.*

Appendix D shows a timeline of all studies and the years they were published. As the timeline shows, most studies have been published since 2003. Next, an introduction to each area is presented, followed by a description of each article. Each article will be described according to the four questions set out in the framework for analysis (see Chapter 3).

Map A- Performance evaluation within organizations

One group of studies has been interested in performance evaluation within organizations. This group of studies constitutes the oldest research area in management accounting and trust, which dates back to the end of the 1970s (e.g. Otley, 1978). However, the dialogue between researchers is still flourishing. Performance evaluation within organizations deals with activities such as targeting, monitoring, measuring and evaluating performance. Traditionally, the budget and financial accounting measures have been used as the main tools in this respect, but nonfinancial measures have also been applied in order to broaden the scope of managing individual and organizational performance. The relation between performance evaluation and trust started from psychology-based budgeting research. This research was sponsored by the Controllership foundation in the US and was conducted by Argyris (1952, 1953), who found that pressure to achieve a budget may create cognitive inconsistency in individuals' minds. This cognitive inconsistency leads to stress, interpersonal conflict and distrust, and consequently causes dysfunctional behavior (Covaleski et al., 2007). Later, Hopwood (1972) extended this research and investigated the effect of performance evaluation on stress and dysfunctional behavior. Otley (1978) was able to show that accounting information leads to low levels of trust. Since the Otley study, other researchers have investigated many aspects of performance evaluation in relation to trust, and consequently a lot of research results in the area have been produced. A variety of management accounting factors is visible in these studies, such as 'performance evaluation', 'participative budgeting', 'control', 'subjective performance evaluation' and 'unfavorable budgets'. These factors are related to trust in different ways. Most often, trust is the effect of the management accounting factor as an intervening variable between management accounting and, for example, job-related tension, job satisfaction or performance, and these factors are studied at the individual level of analysis.

Map B - Management accounting and trust in interorganizational relationships

The second research area in management accounting and trust, address management accounting and control issues in interorganizational relationships. The research area was initiated by Hopwood in the mid-1990s, when he argued for the need to explore the lateral processing of information. This proclaimed need was raised for several reasons. One reason could be traced to the significant changes in business practices at this time (Ford & Håkansson, 2010). Further, trust was investigated in order to explain and understand these relationships. The utilization of management accounting practices in interorganizational relationships deals with the same activities that are carried out within the organization, such as measuring, monitoring and evaluating performance. However, instead of utilizing management accounting for objectives within the organization, management accounting activities are carried out between organizations, for example between a customer and a supplier (e.g. Seal et al., 1999; Dekker, 2004). The focus has been on different control solutions between two interdependent organizations in a dyadic setting. In addition, whole industries have been the focus of analysis (e.g. Free, 2007). Management accounting and its related activities are in these studies often related to output or result control (Håkansson, Kraus & Lind, 2010). Many different management accounting factors are also investigated such as 'OBA', 'interfirm accounting', 'output control' and 'result control'. In this literature, trust between individuals and organizations, and trust in management accounting systems, facilitates relationships between organizations and the functioning of management accounting (Tomkins, 2001; Vosselman & van der Meer-Kooistra, 2009).

Map C - Management accounting implementation and change

The third group of management accounting studies, which has conceptualized and modelled trust, is the area of management accounting change and implementation. This area investigates organizational/management accounting change and the implementation of management accounting systems. Mostly, these studies are interested in the antecedents of successful management accounting system implementations or the effects of the introduction of such systems in organizations. Trust plays an important role as both antecedent and outcome of management accounting implementation and change processes.

In sum, all these areas have contributed to our knowledge and understanding of management accounting and trust. The literature has shown that management accounting and trust play a role within and between organizations, such as when performance needs to be measured and evaluated. The literature has also shown that trust fulfills a role when systems or organizations are changed or implemented.

5.1 Map A – Performance evaluation and trust

5.1.1 Budget use and managerial performance (Otley, 1978)

Author(s)	Year	Journal
Otley	1978	Journal of Accounting Research

Otley's research from 1978 is an attempt to replicate the study by Hopwood (1972). Hopwood investigates whether the extent and style of managers' use of budgets to evaluate subordinate performance influence subordinates mental states and behavior. He finds that a budget-constrained performance-evaluation style[12] compared with a profit conscious style[13] and a non-accounting performance evaluation style[14] causes stress and job-related tension, which is associated with dysfunctional behavior.[15] The particular theoretical expectation is that strict emphasis on budget attainment causes role conflict, which is a major source of job-related tension. When role conflict is in focus the negative aspects of behavior dominate. Role theory generates a specific trust variable in Otley's study, i.e. subordinate trust in his or her superior. Trust is not explicitly defined but measured according to the five-item scale developed by Read (1962).

The management accounting variable is budget emphasis by a superior in evaluating a subordinate. Further, the specific features of the management accounting variable concern a subordinate's *perception of information*. Subordinates' perceived *incompleteness* of short-term budget information in performance evaluations is an important driving feature that causes a specific mental state or behavior. Otley means that long-term information or specific types of non-accounting information have more favorable effects on individuals, because the shortcomings of the perceived incompleteness of the short term budget information is then reduced.

The explanations thus center on how subordinates perceive the information in performance evaluation processes in relation to whether they think

[12] This style relies heavily on accounting information, for example, short-term performance as measured by variance from budget.

[13] This style focuses on overall profitability and long-term effectiveness and efficiency and less on detailed budgetary information.

[14] This style is based on subjective criteria and non-accounting information such as quality of output and attitude to job.

[15] That is: subordinates provide misleading information to their superiors on their own performance or manipulate or change the information communicated to their superiors.

the evaluation really measures their own performances or not. Evaluations are important for subordinates because their rewards are connected with the result of the evaluation process. Accounting information is perceived as imperfect and incomplete by the subordinate when it is used in evaluation processes, because such information does not reflect all the behavior and achievements a subordinate engages in. In other words, the goals the system measures do not entirely cover all the goals the subordinate has tried to reach during the measurement period. Further, when the information is perceived as incomplete, this attitude causes low levels of trust in the superior who use this information. In Otley's study, budget-based performance evaluation has a direct linear effect on individuals' mental states and behaviour, i.e. low levels of trust in a superior. Otley tests the following hypotheses, which imply that the independent variable causes the dependent variable:

> When a manager perceives that he is evaluated primarily on his ability to meet his budget (rather than on the basis of a more flexible use of budgetary information) he is more likely to distrust his superior. (Otley, 1978, p. 126)

The level of analysis is the individual level. Variable variation occurs at the individual level, i.e. individuals trust in a superior varies between individuals in the specific setting. Otley (Ibid, p. 126) writes that *'the unit of analysis was the individual unit manager'*. The main substance and essential aspects are summarized in Table 5.1.

Table 5.1 *Otley (1978)*

What and How	Variable Meaning and level of analysis	Why	Theory
A budget-based performance evaluation has a negative relation with trust. PE- - ▸ T	**MA:** 'perception of information' [incomplete] **Trust:** Read's trust scale **Level:** individual	Strict emphasis on budget causes role conflict. Role conflict means that individual goals and organizational goals are divergent. Further, *role conflict* affects job-related tension and dysfunctional behaviors.	Psychology, role theory

5.1.2 Trust as a moderator of the effect of performance evaluation style on job-related tension (Ross, 1994)

Author(s)	Year	Journal
Ross	1994	Accounting, Organizations & Society

Ross' basic assumption is that a performance evaluation situation is stressful for the subordinate. It evokes job-related tension because evaluations threaten the self-esteem of the objects of the evaluations. A trustful relationship between the evaluated and the evaluator may reduce such negative feelings and stress. However, this is shown to hold only when the information used in evaluation processes is perceived as more *objective* compared with more subjective perceived information.[16] When subjective judgments are used instead of objective measures, the evaluation process becomes vulnerable for a subordinate's biases and idiosyncrasies. This means that a subordinate's and a superior's views will probably differ in many aspects. Thus, when subjective judgments are used it becomes harder to affect the outcome, because this type of subjective perceived evaluation does not explicate on what grounds performance is measured and rewards are distributed. Such judgments make the subordinate unsure about the whole evaluation process. Therefore, even if the subordinate has high trust in his or her superior, he or she will '*always have a nagging doubt as to the reasonableness of an evaluation based on subjective criteria*' (Ross, 1994, pp. 630-631), because he or she does not have exact knowledge about and control over the evaluation process.

> The managers may [when subjective judgments are used] therefore feel a lack of control over the ability to affect their evaluations' (Ross, 1994, p. 631)

Hence, trust has a much more limited role in reducing job-related tension when the information used in performance evaluation is vulnerable to a superior's biases and subjective views. Therefore, even if the subordinate trusts the superior, he or she will always be unsure about the result of the evaluation process. Instead, when objective and consequently verifiable measures are used in performance evaluations, subordinates are surer about the result or outcome. Targets are more often explicated in advance and it is much easier for the subordinate to affect and control the whole

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[16] In this study, performance evaluation with accounting information, i.e. financial information, is a proxy for objective information, while non-accounting information, i.e. nonfinancial information, is a proxy for subjective perceived information.

process. In such cases, trust will reduce the negative consequences of the evaluation.

The subsequent theoretical features of the management accounting variable that predict the effect in this study concerns the perceived objectivity of measures/targets. Objective measures imply a much more controllable evaluation process than subjective judgments, which imply a process where the outcome is much harder to affect.

The variable model form is here interpreted as the independent interaction variable model[17]. The level of analysis is the individual. It is the individual subordinate and his or her feelings and attitudes towards performance evaluation and accounting information and accounting processes that is of importance in this study. The main substance and essential aspects in the article are summarized in Table 5.2.

Table 5.2 *Ross (1994)*

What and How	Variable Meaning and level of analysis	Why	Theory
A performance evaluation situation is assumed to cause job-related tension, but trust reduces negative feelings. Further, this holds true when accounting information is used in performance evaluation situation because accounting information is perceived as more objective than other type of information. MA JRT T	**MA:** 'perception of information' [Objective] **Trust:** Read's trust scale **Level:** individual	Performance evaluation threatens the *self-esteem* of those being evaluated and a higher level of stress (JRT) will be the consequence. Trust can reduce such negative consequences and thus improve acceptance for the performance evaluation process, if combined with objective accounting information.	Psychology

[17] As the title suggests, Ross see trust as a moderator variable and not an independent interaction variable. However, my interpretation is that accounting information as such and trust interact in reducing job related tension.

5.1.3 The interactive effect of budgetary participation and budget favorability on attitudes toward budgetary decision makers: a research note (Magner et al., 1995)

Author(s)	Year	Journal
Magner et al.	1995	Accounting, Organizations & Society

This study investigates whether budgetary participation interacts with budget favorability in affecting employees' attitudes towards budgetary decision makers. The results of this study indicate that employees who have received unfavorable budgets have less negative attitudes toward budgetary decision makers when they have participated in the budgetary process than when they have not participated. Magner et al. (1995) test and find evidence for the following hypotheses:

> We advance the following hypotheses to test for the proposed interactive effect [...]. There is an interaction between budgetary participation and budget favorability such that employees who receive unfavorable budgets will have less negative attitudes toward their immediate supervisor [...]. (Magner et al., 1995, p. 613)

When subordinates receive an unfavorable budget (i.e. the decision outcome of a budget setting process is perceived as unfavorable for the subordinate), but has participated in the budget setting process (i.e. the subordinate is allowed to influence the targets/measures), he or she develops a more positive attitude towards the decision maker (i.e. trust in the superior). Hence, when subordinates receive an unfavorable budget and when they are not allowed to participate in the process, they develop a negative attitude towards the superior.

The management accounting features of interest in this study are related to management accounting processes per se. When subordinates are allowed to participate, they feel that the management accounting process is fair. However, they also feel that they have been able to affect the outcome of the process. Consequently, when subordinates are allowed to express views and opinions in the budget setting process, they feel that they are treated fairly by the organization and that they can control the outcome. Therefore, even if the outcome turns out to be unfavorable, they at least had the opportunity to affect the outcome. If they are not allowed to participate, it is much easier for people to imagine ways their outcome might have been more favorable.

Attitude towards the supervisor was measured with Read's trust scale. Trust is thus an indicator of a positive attitude towards supervisors. The variable model form that describes the relationship between the specific variables in this study is the independent variable interaction model. Participative and implicitly fair and unfavorable management accounting processes interact in affecting the dependent variable trust. The level of analysis is the individual level. It is the subordinate's attitude and feeling towards the management accounting (budget setting) process that are of interest in this study.

Table 5.3 *Magner et al.(1995)*

What and How	Variable Meaning and level of analysis	Why	Theory
When employees have received an unfavorable budget but have participated in the budgetary process they have higher trust in decision makers. UFB PB → T	**MA:** 'perception of the MA process' [Fairness] **Trust:** Read's trust scale **Level:** individual	Subordinates that receive unfavorable outcomes and perceive that the MA process is unfair are likely to imagine that more favorable outcomes may have occurred if fairer procedures had been employed.	Psychology Referent cognitions theory

5.1.4 Budgeting – the role of trust and participation (Lau & Buckland, 2001)

Author(s)	Year	Journal
Lau & Buckland	2001	Abacus

This study investigates the intervening effects of trust and budgetary participation on the relationship between an accounting (information) performance evaluation style and job-related tension. The result of the study indicates that a high budget emphasis, when evaluating performance, is associated with high budgetary participation and high trust. High trust is associated with reduced job-related tension.

The feature of the first management accounting variable concerns subordinates' perceived importance of measures/targets in performance evaluation situations. If subordinates perceive that the measures are important for them, they think that it is worth participating in the process when targets are set. By contrast, if they feel that the measures are not important for them, they feel no need to participate. Thus, participation in the target setting process is the other management accounting variable in this study. If subordinates are allowed *to influence the target setting process*, this makes the process more *open* and *transparent* and then subordinates are more likely to accept those budget targets. Such acceptance will foster trust in the superior who lets the subordinate participate. When subordinates trust their superior, they feel they can be more open, are willing to express their feelings more openly and can air their concerns and grievances openly. This reduces stress, frustration and conflict, leading to lower job-related tension. According to Lau and Buckland (2001), whether subordinates attach importance to the measures/targets is related to whether the measures are linked to their rewards or not. If the measures are directly linked to their rewards they also value the targets higher than if the measures are perceived to not be directly linked to their rewards.

> It [budgetary participation] opens up the budget target setting process for the subordinate's scrutiny, thereby making the process transparent. Subordinates are also likely to accept those budget targets which they help set more than those imposed on them by others. Such acceptance may lower the subordinates' mistrust of their superiors' evaluative style and, ultimately, their superiors who choose and use the evaluative style and carry out the evaluations. (Lau & Buckland, 2001, p. 375)

Trust in a superior is an important variable affecting job-related tension thus related to dysfunctional behavior. Subordinates' trust in their superiors is negatively associated with job-related tension and hence favorable behavioral outcomes will result from a high trust environment. Trust is conceptualized as the trust subordinates have in their superiors. Zand's (1972) trust scale is used to measure trust. The authors write:

> Trust in relation to this instrument, is regarded not as a personality variable, that is, an element of individual character, but as an induced attitude, one that the individual could alter in a situation in which he was led to intend and to expect trust (or mistrust) from others. (Lau & Buckland, 2001, p. 377)

Lau and Buckland model four variables. The variable model form is the intervening variable model. The model includes two intervening variables (budgetary participation and trust), one independent variable (budget emphasis) and one dependent variable (job-related tension). Budget emphasis is associated with budgetary participation. Budgetary participation is associated with high trust and high trust is associated with reduced job-related tension. The level of analysis is the individual subordinate level and his or her perceptions of budget information and budget processes. The main substance of the article is summarized in Table 5.4.

Table 5.4 *Lau & Buckland (2001)*

What and How	Variable Meaning and level of analysis	Why	Theory
A high budget emphasis, when evaluating performance, is associated with high budgetary participation and high trust. High trust is associated with reduced subordinates' job-related tension BE ⟶ PB ⟶ T - ► JRT	**MA:** 'perception of the MA information' [important] and 'perception of the MA process' [participative] **Trust:** Zand's trust scale **Level:** individual	If subordinates perceive that the measures are important for them, they think that it is worth participating in the process when the targets are set. When subordinates are allowed to participate, i.e. *influence the target setting process*, they perceive the process to be more *open, transparent*, and then subordinates are more likely to *accept* those budget targets that they help to set. Such acceptance will foster trust in the superior.	Psychology, role theory

5.1.5 Accounting for trust: some empirical evidence (Johansson & Baldvinsdottir, 2003)

Author(s)	Year	Journal
Johansson & Baldvinsdottir	2003	Management Accounting Research

The result of the study shows that the use of accounting information can either create or violate trust depending on the intentional behavior of the actors involved in performance evaluation situations. If accounting information is used by managers in a manipulative way, e.g. by withholding information and by punishing employees, the manager creates tension and mistrust. By contrast, if the manager is committed to the subordinate and creates a sense of security by supplying subordinates with relevant information, trust will increase. Moreover, accountants who are trusted can play an important role as carriers of trust. The behavior of carriers of trust will influence trust and performance. The authors write:

> […] trusting the accountants as well as trusting the accounting figures is necessary if the information concerned is to be used for evaluating performance in a way that will improve organizational performance. The prospect for creating trust in the accounting figures are connected with the trust that the accountants have succeeded in winning from other people in the organization. (Johansson & Baldvinsdottir, 2003, p. 232)

Thus, their discussion centers on the accountant as a 'trust carrier'. The accountant infuses trust in the organization by a '*trustful use*' of the accounting system. Individuals feel secure and thus develop trust in the accounting figures and trust in the accountant, i.e. trust in the accounting system. When this situation is visible in the organization, a successful performance evaluation will occur, because even if the evaluation situation is perceived as stressful for the subordinate he or she will trust that the evaluation was in the best interests of all parties involved. The action and behavior of the trust carrier is thus of great importance for subsequent trust development. Therefore, if there is trust in the system and the people involved in performance evaluations, especially in those people responsible for the accounting system, the evaluation will not cause dysfunctional behavior.

Thus, the feature connected with the use of the management accounting system is a 'trustful' use in contrast to a 'manipulative' use. A trust carrier may, for example, use information in a trustful and open way or in a manipulative way. Further, this causes system trust or not.

A straightforward way of interpreting the model in this study is to see it involving a trustful use of the management accounting system, as a factor affecting system trust in a positive way, which consequently leads to improved organizational performance.

The level of analysis is the individual. The variables are related to individuals and their feelings and individual trust levels in the system and the accountants. The essential aspects of the article are summarized in Table 5.5.

Table 5.5 *Johansson & Baldvinsdottir* (2003)

What and How	Variable Meaning and level of analysis	Why	Theory
The accountant as a carrier of trust uses accounting information in a trustful way and this creates trust in the accounting figures and in the accountant as well, which leads to improved organizational performance. MA → ST → PER	**MA:** 'use of accounting systems [trustful] **Trust:** Trust in systems **Level:** individual	Performance evaluation will only be successful if individuals in the organization enact the accounting routines. However, their enactment process is dependent on a person who starts the process, i.e. a trust carrier, an individual who people put their trust in. Trust, openness and communication are thus necessary because of the risk involved in such situations.	Institutional theory, active agency.

5.1.6 Determinants and Effects of Subjectivity in Incentives (Gibbs et al., 2004)

Author(s)	Year	Journal
Gibbs et al.	2004	The Accounting Review

Gibbs et al. (2004) investigate and study subjective judgments when evaluating employee performance and rewarding bonuses. They discuss subjective judgments in comparison to more formula-based financial short-term measures. The use of subjectivity in performance evaluation *'permits evaluators to exploit any additional relevant information that arises during the measurement period to the benefit of both the firm and the employee'* (Gibbs et al., 2004, p. 410).

Their overall theoretical focus is on how measures are perceived by organizational members in evaluation and reward processes. Accounting measures that are perceived as more incomplete by a subordinate may be distorted because they *'inadequately account for or ignore entirely some dimensions of the employee's job'* (Gibbs et al., 2004, p. 411). Hence, there is a need for the organization to reduce such distortion by the use of measures/judgments that are perceived as more complete, i.e. the evaluation and its subsequent rewards must focus on all aspects of an employee's value-enhancing efforts.

While subjectivity often leads to advantages (i.e. gives the impression of more complete measures/judgments), subjectivity can also cause disadvantages. The evaluation process may be perceived as unfair. If subordinates do not believe that their evaluators will make fair or unbiased performance judgments, then the employee can feel frustration and unmotivated. When evaluations are subjective, employees may try to influence supervisors for better evaluations, or make their efforts look better in order to curry favor from their managers. However, these problems are reduced if the employee and the evaluator develop a relationship with greater mutual trust. The authors express the explanation in the following way:

> Trust between the subordinate and supervisor can alleviate implementation problems, leading to more effective use of subjectivity in incentive schemes. […]. Therefore, higher trust combined with greater use of subjectivity is likely to increase employee satisfaction with the compensation system, as well as improving performance. (Gibbs et al., 2004, p. 415)

Accounting measures are consequently assumed to be perceived as incomplete, but this assumption was never tested in Gibbs et al.'s study. What the study instead tests and finds, is that subjective judgments and trust interact in affecting pay satisfaction and performance positively. Thus, the authors find that the use of subjectivity in assigning rewards is more positively related to pay satisfaction the greater the level of trust is.

Trust is not defined in any specific terms, rather the study use a proxy for trust, i.e. a manager's tenure. A manager's tenure is measured by the number of years the manager has been at the company. By subjectivity, the study refers to subjective judgments by an evaluator when evaluating and rewarding employees. The level of analysis is the individual subordinate. The authors describe their prediction in the following way:

> Our prediction is that greater use of subjectivity should increase pay satisfaction [and performance] only if there is better trust between the manager and the firm, because trust should increase the benefits and reduce the cost of subjectivity. We find that this interaction is significant as predicted. (Gibbs et al., 2004, p. 433, emphasis added)

Table 5.6 Gibbs et al. (2004)

What and How	Variable Meaning and level of analysis	Why	Theory
Subjectivity in performance evaluation situations will increase pay satisfaction and performance only if there is trust between the manager and the firm. SPE T → PER/PS	**MA:** 'perception of information (subjective] **Trust:** Managers tenure as a proxy for trust **Level:** organizational members	When subjective judgments are used to complement quantitative performance measures in performance evaluation and reward situation, there are both benefits (the negative consequences of incomplete perceived evaluation measures are reduced) and potential problems (unfair evaluation processes). However, trust between the subordinate and supervisor can ease the potential problems with unfair evaluations, i.e. subordinates will trust that superiors will make informed and fair performance assessments.	AT

5.1.7 Financial and nonfinancial performance measures: how do they affect job satisfaction? (Lau & Sholihin, 2005)

Author(s)	Year	Journal
Lau & Shollihin	2005	The British Accounting Review

This study investigates the behavioral consequences of performance evaluations. The results of the study show that the effects of performance evaluations on subordinates' behavior may be indirect through their perceptions of the fairness of the performance evaluation process and the extent of interpersonal trust such processes promote.

Lau and Sholihin (2005) show that specificity and clarity in performance measures are important for the perceived fairness of performance evaluation processes. Specific measures/targets are important for individuals because they enhance the direction and clarity of tasks to be performed and the roles of the subordinate. Human action is assumed to be directed by conscious goals and intentions. Well-defined and well-specified measures for performance are thus important for individuals. *'The specificity of goals leads to favorable employee behaviors'* (Lau & Sholihin, 2005, p. 399). Further, the perceived fairness of performance evaluation processes leads subordinates to perceive their superiors as trustworthy. Trust causes an atmosphere of openness and communication between superiors and subordinates, which has favorable behavioral consequences, such as job satisfaction.

The behavioral consequences of both financial and nonfinancial performance measures are the same. The differences between using financial and nonfinancial measures in performance evaluation do not affect employee behavior. Well-defined and specific measures are more important, as they (regardless of whether they are financial or nonfinancial) affect the perception of the fairness of the performance evaluation process and consequently lead to trust in the superior.

The theoretical explanation behind the result can be found in goal setting theory, which explains that the presence of specific goals can lead to positive employee behaviors.

> The presence of specific goals, especially challenging ones, are associated with higher self efficacy, entails less ambiguity about what constitutes high or good performance, are typically more instrumental in bringing about valued outcomes, direct attention and action better and motivate individuals to search for suitable task strategies. (Lau & Sholihin, 2005, p. 411)

Trust is conceptualized as trust in a superior and measured by Read's trust scale. The model used in this study is an intervening variable model, as expressed in the following sentences:

> This study hypothesizes that the use of performance measures [i.e. specific and clear goals] for performance evaluation will significantly affect managers' job satisfaction. However, these effects are indirect through the managers' perceptions of the fairness of [the evaluation process] and the interpersonal trust these measures promote. (Lau & Sholihin, 2005, p. 389)

The level of analysis is the individual.

Table 5.7 *Lau & Sholihin (2005)*

What and How	Variable Meaning and level of analysis	Why	Theory
The use of specific and clear performance measures in performance evaluations will affect managers' job satisfaction. These effects are indirect through the managers' perceptions of the fairness of the process and the interpersonal trust these measures promote. PE → PF → T → JS	**MA:** 'perception of measures' [clear/specific] and 'perception of ma-process' [fair] **Trust:** Read's trust scale **Level:** individual	The presence of *specific goals* is likely to lead to favourable employee behaviors, because goals enhance the direction and clarity of tasks to be performed and the roles of the subordinate. Human action is assumed to be directed by conscious goals and intentions.	Psychology, goal setting theory

5.1.8 The effects of procedural fairness and interpersonal trust on job tension in budgeting (Lau & Tan, 2006)

Author(s)	Year	Journal
Lau & Tan	2006	Management Accounting Research

This study examines the behavioral consequences of budgetary participation. The results of the study show how budgetary participation affects job-related tension indirectly through procedural fairness and trust. Procedural fairness and interpersonal trust thus together explain the effects of the relationship between budgetary participation and job tension.

When subordinates are allowed to participate in the budget setting process, i.e. allowed to express their opinions and provide inputs in the process, they perceive the process to be fair. Hence participation cause subordinates to perceive the budget setting process to be fair. Perceived procedural fairness causes subordinates to assess their superior as trustworthy and consequently job-related tension will lowers. When subordinates are not allowed to participate in the budget setting process, they perceive the process to be more unfair and thus they are likely to react more unfavorably to such processes and have more negative attitudes towards their superiors, i.e. low levels of trust.

The explanation of this result relies on organizational justice theory and procedural justice (fairness) theory. Individuals are concerned with the fairness of organizational decision procedures because they might affect the outcome people receive. Procedural fairness may thus have instrumental effects because fairness in procedures may lead to fairness in outcomes. A non-instrumental effect is also a plausible explanation. This explanation means that individuals are interested in the fairness of processes per se and not in the actual outcomes of such processes, because individuals value their sense of belonging in groups very highly. Therefore, if they are allowed to participate in groups' decisions and affairs, their social standing in that group is reinforced and that is of high importance for individuals. These two explanations will have favorable behavioral outcomes in the form of lower stress, anxiety and job-related tension. In this study trust is conceptualized as interpersonal trust and measured by Read's trust scale. This instrument tends to reflect:

> […] the subordinate's trust or confidence in the superior's motives and intentions with respect to matters relevant to the subordinate's career and status in the organization. (Lau & Tan, 2006, p. 177)

The variable model used in this study is the intervening variable model. Budgetary participation affects job-related tension indirectly through procedural fairness and trust. The level of analysis is the individual. The modeled relationship is expressed by the authors in the following way:

> This study investigates the intervening effects of procedural fairness and interpersonal trust on the relationship between budgetary participation and job tension. [...]. Procedural fairness and interpersonal trust are both found to be important intervening variables. (Lau & Tan, 2006, p. 184)

Table 5.8 *Lau & Tan (2006)*

What and How	Variable Meaning and level of analysis	Why	Theory
Budgetary participation affects job tension indirectly through fairness and trust PB → PF → T → JRT	**MA:** 'perception of the MA process' [participative and fair] **Trust:** Read's trust scale which measures trustworthiness **Level:** individual	Procedures and processes that allow all those affected by the decision to *participate in the decision making process are likely to be viewed as fairer* than those that do not allow participation. If organizational procedures are fair, subordinates are likely to feel that their organizations are treating them properly and that they are respected by their superiors. Their sense of self-importance and self-respect are likely to be enhanced or it might affect the outcomes people receive.	Organizational justice theory and procedural justice (fairness) theory

5.1.9 Fairness of performance evaluation procedures and job satisfaction: the role of outcome-based and non-outcome-based effects (Lau et al., 2008)

Author(s)	Year	Journal
Lau et al.	2008	Accounting and Business Research

This study investigates the effect of fairness in performance evaluation procedures on job satisfaction. The effect of fairness in procedures can be outcome-based or non-outcome-based. The non-outcome-based effect is an emotional type and includes trust and commitment. The outcome-based effect includes perceptions of fairness in the outcomes/results of the process.

The features connected to fairness in performance evaluation processes concerns feelings of group membership, which is important for affiliate individuals. Fairness in how people are treated by their groups is important because it is perceived as a visible marker of group membership. Further, this feature is linked to the enhancement of an individual's dignity as a full-status member of the group.

The fairness of procedures can also be connected to the perception of fairness in outcomes. A fair process is perceived to be more likely to lead to fairer decisions. Hence, fair processes lead to fairness in outcomes.

The results of the study show that the non-outcome-based effect is the stronger compared with the outcome-based effect. Hence, the model shows that if the evaluation process is perceived to be fair, meaning that individuals perceive that the organization is giving them status and value, it leads to trust, commitment and job satisfaction. Further, these relationships are shown to be stronger than the relationships between perceived fairness in outcomes which instead means that individuals control the process in order to affect the outcome of the process (in order to attain higher/better individual result), i.e. the self-interested explanation. Overall, the study suggests that both theories are needed to explain the relationships between procedural fairness and job satisfaction.

The variable model is an intervening variable where job satisfaction is dependent on fairness in performance evaluation processes and this effect is indirect through fairness in outcome but mostly from the indirect effect of trust and commitment. The level of analysis is the individual subordinate. Read's four-item trust scale is used to measure trust.

Table 5.9 Lau et al. (2008)

What and How	Variable Meaning and level of analysis	Why	Theory
Fairness in performance evaluation processes affects job satisfaction through trust and commitment. PE ⟶ T&C ⟶ JS	**MA:** 'perception of the MA process' [fair] **Trust:** Read's trust scale which measures trustworthiness **Level:** individual	The features connected to fairness in performance evaluation processes concerns feelings of group membership, which is important for affiliated individuals. Fairness in how people are treated by their groups is important because it is perceived as a visible marker of group membership. Further, this feature is linked to the enhancement of an individual's dignity as a full-status member of the group.	Psychology: group value theory & self-interested outcome-based model

5.1.10 Fairness in performance evaluation and its behavioural consequences (Sholihin & Pike, 2009)

Author(s)	Year	Journal
Sholihin & Pike	2009	Accounting and Business Research

This study explores the behavioral consequences of the perceptions of fairness in performance evaluation situations. Fairness in performance evaluation situations is assumed to cause job satisfaction through the intervening variables trust, commitment and fairness outcomes.

The features connected to fairness in performance evaluation processes concerns feelings of group membership, which is important for affiliated individuals. Fairness in the hoe people are treated by their group is important because it is perceived as a visible marker of group membership. Further, this feature is linked to the enhancement of an individual's dignity as a full-status member of the group (trust and commitment effect).

An alternative explanation is related to self-interest and the argument that people prefer fair processes because they are motivated to maximize their personal outcomes (outcome-based effect).

The results of the study show that if the evaluation process is perceived to be fair, meaning that individuals perceive that the organization is giving them status and value, it leads to trust, commitment and job satisfaction. There is consequently no support for the outcome-based effect.

The variable model is an intervening variable model where job satisfaction is dependent on fairness in performance evaluation processes and this effect is indirect through trust and commitment. The level of analysis is the individual subordinate. Read's trust scale is used to measure trust.

***Table 5.10** Sholihin & Pike (2009)*

What and How	Variable Meaning and level of analysis	Why	Theory
Fairness in performance evaluation processes affect job satisfaction through trust and commitment PE→ T&C→ JS	**MA:** 'perception of the MA process' [fair] **Trust:** Read's trust scale **Level:** individual	The features connected to fairness in performance evaluation processes concern feelings of group membership which is important for individuals. Fairness in how people are treated by their group is important because it is perceived as a visible marker of group membership. Further, this feature is linked to the enhancement of an individual's dignity as a full-status member of the group.	Social Psychology: group value theory

5.1.11 How formal performance evaluation affects trust between superior and subordinate managers (Hartmann & Slapnicar, 2009)

Author(s)	Year	Journal
Hartmann & Slapničar	2009	Accounting, Organizations & Society

This study investigates the link between formal performance evaluation and trust. The authors show that a formal system causes enhanced perceived procedural justice and increases the perceived quality of performance feedback, which consequently leads to trust (perceived trustworthiness). The explanation is that a formal system signals the norms of honesty and clarity, which only explicit measures, objective evaluations and rule-based rewards can accomplish.

The overall feature this study is interested in is 'the level of formality' that superiors apply when using the performance evaluation system. The authors are interested in target setting, evaluations and reward distributions. Formality in target setting means that targets are written, explicated and specific, in contrast to unwritten, implicit and unspecific and whose subsequent achievements cannot be measured objectively. Formality in performance measurements means using objective measures in contrast to subjective judgments. Formality in assigning rewards means that rewards are based on clear allocation rules, so the reward distribution is traceable in contrast to untraceable personal judgments.

Trust is measured by Read's trust scale. Which have the following meaning in the study:

> It addresses trust by asking subordinates about the extent to which they perceive that their superior is inclined to take actions that are in the interests of the subordinate. These questions were selected as they are neutral vis-à-vis specific causes of trust, and directly assess elements of trustworthiness. (Hartmann & Slapničar, 2009, p. 729)

Consequently, if subordinates perceive that the performance evaluation process is clear, objective, accurate, unbiased and consistent, the evaluation process will be perceived to be more fairer and feedback information will be perceived as having higher quality. This will lead subordinates to perceive their superior to be more trustworthy.

The underlying feature of the first management accounting variable is thus *objectivity/clarity/specificity* in targets, measures and rewards. The second variable covers the feature of *meaningful information* provided by the system and the third variable covers the perceived fairness of the whole management accounting process.

The theoretical explanation is that specific and clear goals provide qualitative and meaningful feedback information on performance, leading to fairer processes. Further, when subordinates receive fair and high-quality performance evaluations, some of these features will be attributed to the superior providing the evaluation and rewards. Consequently, subordinates will trust the superior who provides the evaluations.

The variable model is an intervening model with two intervening variables: information feedback quality and fairness in performance evaluation processes (procedural justice). Formality is the independent variable and trust is the dependent variable. The level of analysis is the individual subordinate level.

> For the overall model the results confirm the hypotheses that the link between formality of the performance management cycle and trust is mediated through the quality of feedback and procedural justice. (Hartmann & Slapničar, 2009, p. 733)

Table 5.11 *Hartmann & Slapničar* (2009)

What & How	Variable Meaning/level of analysis	Why	Theory
Formal MA system use will lead to high-quality feedback information on performance, which is associated with procedural fairness and trust. MA → QFI → F → T	**MA:** 'perception of the MA process' [fair] and 'perception of information' [specific, clear and, meaningful] **Trust:** Read's trust scale **Level:** individual	Specific and clear goals provide qualitative feedback information on performance and consequently the management accounting process is perceived to be fair by the subordinate. Further, when subordinates receive fair and high-quality performance evaluations and rewards, some of these features will be attributed to the superior providing the evaluation and rewards. Consequently, subordinates will trust the superior who provides such evaluations.	Mix of different psychological explanations and theories. For example goal setting theory and procedural justice theory.

5.1.12 Goal-setting participation and goal commitment: Examination of procedural fairness and interpersonal trust in a UK financial organization (Sholihin et al., 2011)

Author(s)	Year	Journal
Sholihin et al.	2011	The British Accounting Review

This study is a replication of the study by Lau and Tan (2006). It examines the behavioral consequences of participation in goal setting procedures in performance evaluation situations. The result of the study shows that participation in goal setting is positively associated with goal commitment. However, this association is mediated by procedural fairness and trust.

When subordinates are allowed to get involved in and influence the management accounting process of setting goals, they feel control over and involvement in the decision making process. In turn, they feel that their superiors are treating them fairly and that the management accounting process as such is fair. Fairness refers to all aspects of the evaluation process and is related to trust in supervisors. The explanation for this result relies on organizational justice theory and goal theory. In this study, trust is conceptualized as interpersonal trust and measured by Read's trust scale.

The variable model used in this study is the intervening variable model. Goal setting participation is positively associated with goal commitment through procedural fairness and trust. The level of analysis is the individual.

> This finding supports Lau & Tan's (2006) finding in a budget that participation is positively associated with procedural fairness and interpersonal trust. (Sholihin et al., 2011, p. 144)

***Table 5.12** Sholihin et al. (2011)*

What and How	Variable Meaning and level of analysis	Why	Theory
Budgetary participation affects goal commitment indirectly through fairness and trust PB→ PF →T→ GC	**MA:** 'perception of the MA process' [participative and fair] **Trust:** Read's trust scale **Level:** individual	Performance evaluation processes that allow all those affected by the decisions to participate in the decision making process are likely to be viewed as fairer than those that do not allow participation. If organizational procedures are perceived to be fair, subordinates are likely to feel that their organizations are treating them properly and that they are respected by their superiors. Consequently, they will trust their superiors.	Goal theory and organizational justice theory.

5.2 Map B - Management accounting in an interorganizational setting

5.2.1 Accounting and trust in the enabling of long term-relations (Seal & Vincent-Jones, 1997)

Author(s)	Year	Journal
Seal & Vincent-Jones	1997	Accounting, Auditing & Accountability Journal

This study investigates different empirical settings where accounting and trust are related. The focus for the investigation is particularly long-term relationships. The first context is the post-socialist transition in Eastern Europe. The second context is a local government in the UK. The main thesis in the study is that long-term relationships are embedded in social relations to which trust is central. Further, contracting and accounting may enhance or destroy trust. The main thesis concerning trust is related to Luhmann's (1979) concept of system trust.

The study examines the role of accounting in enhancing or destroying system trust. It concludes that:

> It is our contention that it [accounting] played a role in stabilization expectations and maintaining trust [...]. (Seal & Vincent-Jones, 1997, p. 414)

This means particularly that the relationship between system trust and accounting is explored in this study. Accounting is characterized as invisible, well developed, unstigmatized, robust and having a taken-for-granted nature. The specific use of accounting practices can have a constitutional role in securing trusting relationships.

The study links accounting use in a direct linear way, to system trust. The level of analysis is the relationship between actors at a country level and at an organizational level.

Table 5.13 Seal & Vincent-Jones (1997)

What & How	Variable Meaning/level of analysis	Why	Theory
Accounting is associated with system trust. MA $\longrightarrow$ ST	**MA:** 'use' of accounting **Trust:** System trust, based on a presentational base. **Level:** relationships	Accounting use has many features that lead to a general type of system trust. System trust has a presentational base that is activated by the appearance that everything seems to be in proper order.	Sociology

5.2.2 Enacting a European supply chain: a case study on the role of management accounting (Seal et al., 1999)

Author(s)	Year	Journal
Seal et al.	1999	Management Accounting Research

This study is about the role of management accounting in the constitution of a strategic partnership between a customer and a supplier. The study explains how management accounting may contribute to the development of a business relationship. The result of the study shows that an OBA agreement can foster trust between a customer and suppliers in a strategic partnership, as both sides learn about and respect each other's financial and commercial limitations and objectives.

Between two organizations different forms of OBA techniques are used in order to develop a trusting atmosphere and to make financial and commercial information more visible for both partners in order to reduce information impactedness.

In this study the variable OBA is elaborated on empirically and shown to mean the specification and sharing of cost data, i.e. a specific management accounting methodology that aims to open up the cost reports for each party, making information more transparent and establish shared meaning in the relationship.

When cost data are specified and shared, with the objective of learning about each other's financial and commercial objectives (in order to bring about trust and a working relationship), the system and its technologies must be understood and respected by both partners and all people involved. Hence, the feature of the system that is important in this study is its ability to develop technologies that both parties understand. If parties involved in an OBA agreement do not understand the system, it is hard to use it in an active way for its intended objectives.

> Thus the contribution of management accounting to supply chain management may depend on its ability to develop costing and performance measurement technologies that can be understood and respected [by different people involved in the strategic partnership]. (Seal et al., 1999, p. 321)

Trust is conceptualized as contractual, competence and goodwill trust and is in this study a form of interorganizational trust. This study is modeled as an additive variable model. The authors write, for example:

> Therefore we submit that, both in inter- and intra-organizational environments, accounting may play a constitutional role in the establishment and management of trusting and collaborative business relationships that goes beyond the technical to a more symbolic level. (Seal et al., 1999, p. 320)

An OBA agreement, where cost data are shared and understood by both parties, fosters trust between partners. The level of analysis is the dyadic level (two organizations in a relationship). The variation of interest varies at the dyadic level, i.e. trust between two organizations (interorganizational trust). The individual managers in both organizations are the representatives for the trust that each organization develops through OBA.

Table 5.14 *Seal et al. (1999)*

What & How	Variable Meaning/level of analysis	Why	Theory
An OBA agreement, where cost data are shared, fosters trust between partners in a strategic partnership OBA → T	**MA:** 'perception of the MA information' [understandable] **Trust:** contractual, competence and goodwill **Level:** dyad	Accounting information reduces information impactedness and improves transaction atmosphere.	TCE

5.2.3 Control of international joint ventures (Groot & Merchant, 2000)

Author(s)	Year	Journal
Groot & Merchant	2000	Accounting Organization and Society

This study explores control practices in three international joint ventures and investigates those factors that might account for certain control implications in a joint venture relationship. Trust is one factor, among others, related to control. Management accounting is part of the control concept and is related to result control. The type of trust the study focuses on is related to the perception of partner competence and positive (or negative) behavioral intentions.

Related to the factors of trust and control, the article formulates two propositions that are tested in a case study. The propositions state that when trust between joint venture partners is relatively low, partners' control over the joint venture will be relatively tight and their control foci relatively broad. The result of the study is mixed. However, generally the study shows that trust is associated with control.

The relationship between management accounting and trust is of a direct linear type where high (low) levels of trust are associated with low (high) levels of management accounting (control). More precisely, this means that when trust is high, extensive and excessive control is not visible.

The level of analysis is the relationship between joint venture partners.

Table 5.15 Groot & Merchant (2000)

What and How	Variable Meaning and level of analysis	Why	Theory
Trust is associa-ted with mana-gement accoun-ting information. T - - ► MA	**MA:** 'perception of MA information' [low levels of relevance] **Trust:** behavioral intentions, competence **Level:** dyad	High (low) trust levels make accounting control loose (tight).	TCE and AT reasoning.

5.2.4 Management control system and trust in outsourcing relationships (Langfield-Smith & Smith, 2003)

Author(s)	Year	Journal
Langfield-Smith & Smith	2003	Management Accounting Research

This study examines how control mechanisms and trust are used to control the relation between a company and its outsourced operations. The authors show that different contingent factors affect what type of control pattern the relationship develops and consequently the control mechanism chosen in the relationship. Whether or not contingent factors such as the characteristics of the transaction (task programmability, output measurability, asset specificity), the environment or the characteristics of the parties involved in the relationships lead to a trust-based control pattern or a bureaucratic control pattern thus, depends on the presence or absence of these characteristics.

Outcome controls *'measure and monitor the outputs of operations or behaviors, using techniques such as performance measurement'* (Langfield-Smith & Smith, 2003, p. 283), where performance targets or standards are set in the relationship. Behavioral controls *'specify and monitor individual's behavior, with rules and standard operating procedures'* (Ibid). Social controls are *'present in all organizations and may develop from shared norms, values and beliefs'* (Ibid). Management accounting is thus primarily related to outcome controls, with the aim of measuring or monitoring performance. The relationship between outcome controls and trust is in this study of a more implicit character. However, the following features of management accounting and its relationship with trust have been traced.

The most important feature related to the management accounting variable (i.e. output control) is *a participatory* management accounting process. Joint participation in the process playS an important role in the development of goodwill trust. As Langfield-Smith and Smith write:

> First, it [the participatory management accounting process] provided a forum for interaction between the two parties, increasing the number of joint dealings and increasing familiarity. This may encourage trust. (Langfield-Smith & Smith, 2003, p. 301)

They also point out that specific accounting measures may also provide a way to communicate expectations between the two parties that strengthens the relationship.

> Through numerous discussions and meetings [participatory processes] [...] performance measures and targets were developed [...]. [The system] effectively encouraging the developing of shared goals, and encouraged goodwill trust. (Langfield-Smith & Smith, 2003, p. 301)

The explanation is that when performance goals were developed in joint management accounting processes, information sharing and the establishment of mutual interest was of high importance for trust, especially goodwill trust. The variable model in this study can be described as an additive linear variable model. Participatory management accounting processes are related to goodwill trust in an additive linear way. The level of analysis is the dyad.[18]

Table 5.16 *Langfield-Smith & Smith (2003)*

What and How	Variable Meaning and level of analysis	Why	Theory
Output control leads to goodwill trust. OC ⟶ T	**MA:** 'perception of the MA process' [participative] **Trust:** goodwill **Level:** dyad	Accounting information and trust reduce uncertainty in the relationship. In a participatory management accounting process, interaction, familiarity, information sharing and mutual interest are developed, which are important bases for goodwill trust.	TCE and trust theories.

[18] Even though the level of analysis is the dyad access was gained only from one party in the dyad. Consequently, interorganizational trust is only measured from one party.

5.2.5 Accounting and network coordination (Håkansson & Lind, 2004)

Author(s)	Year	Journal
Håkansson & Lind	2004	Accounting, Organization & Society

This study focuses on a close relationship between two independent, but highly integrated and coordinated companies. It investigates coordination and cooperation and shows that different forms are utilized in the same relationship and simultaneously (i.e. market-based coordination, hierarchy coordination and relationship-based coordination). The authors state that these three forms of coordination mechanisms are not just alternatives; they are also complementary to each other.

In terms of trust and management accounting, the study points out the importance of accounting information in these coordination forms. The authors further emphasize that a flexible and systematic combination of accounting supports relationship formation. *'The quality of the relationship is directly dependent on the underlying information'* (Håkansson & Lind, 2004, p. 54). Accounting methods can be deployed in several ways to enhance the development of the relationship.

If interpreting this study in variables and factors, a direct linear relationship between accounting use and trust is visible. Management accounting, used in a highly flexible and reflexive way, thus supports a favorable relationship. Trust is not defined per se, but the study refers to mutual trust between parties. Even though the study discusses a whole network of relationships, implying a network analysis, the relationship between accounting and trust is generalized to a general level between two highly integrated but independent parties.

Table 5.17 *Håkansson & Lind (2004)*

What and How	Variable Meaning and level of analysis	Why	Theory
Accounting is associated with trust. MA ⟶ T	**MA:** 'flexible' and systematic combining' use **Trust:** unclear **Level:** Two companies, but a network of relationships.	Combining of accounting methods supports the development of interorganizational relationships, because of the need for knowledge about partners' activities and resources in order to be able to coordinate activities between two highly integrated but independent companies.	Network theory, and the coordination of production structures.

5.2.6 Control of inter-organizational relationships: evidence on appropriation concerns and coordination requirements (Dekker, 2004)

Author(s)	Year	Journal
Dekker	2004	Accounting Organization and Society

Dekker (2004) investigates interorganizational relationships. His explicit framework describes five characteristics of the transaction, the transaction environment and the organization of inter-organizational relationships. These characteristics cause such relationships to face two main control problems, i.e. coordination requirements and potential opportunism due to appropriation concerns. Further, these two types of problems need to be handled with control mechanisms, i.e. outcome and behavior control. Hence, dyads need to invest in control structures. However, if there is trust in capabilities and goodwill between partners, trust can reduce the strength of the association between control problems and control mechanisms. In addition, related to trust, good partner selection is important in this matter, because if there is trust between two parties at the beginning of a joint project the magnitude of transaction problems will not be as high as if parties were unknown before.

The relationship between management accounting and trust in Dekker's framework is of a more implicit kind. The following conceptualizations of trust and management accounting and their relationships are although visible. First, outcome control is related to management accounting processes and accounting information and this specifies the '*outcomes to be realized by the IOR and by its partners and monitor the achievement of these performance targets*' (Dekker, 2004, p. 32). Informal control or social control is conceptualized as trust. The type of trust Dekker refers to is capability and goodwill trust. Capability trust relates to '*expectations about another's competencies to perform a task satisfactorily*' (p. 33), whereas goodwill trust is '*the expectation that another will perform in the interests of the relationship, even if it is not in the other's interest to do so*' (p. 32).

The features of the management accounting variables related to trust in this study are qualities of information such as it being shared, open and transparent. These features are important in order to secure information process requirements when tasks between two interdependent parties have to be coordinated. Dekker writes, for example:

> The partner believes mutual transparency of […] results to be an important basis of their trusting relationships. The formal controls in particular goal

> setting, performance measurement and information sharing, contribute to this transparency. (Dekker, 2004, p. 45)

Trust that was already present at the beginning of the study influences management accounting information and its related features in a positive way. In turn, management accounting has a feedback effect on trust. The relationship between management accounting and trust is thus of a linear additive type with a feedback effect. First, trust influence management accounting information and later, management accounting information have a feedback effect on trust. This is expressed in the following quote:

> This high trust situation was clearly demonstrated by [part A] […], as [party B] was allowed detailed insights into the cost structure […]. (Dekker, 2004, p. 45)

And,

> […] [A]s a result of its trust in [party B's] goodwill, [party A] did not perceive sharing this information to be a large risk. This risk taking behavior further nurtured relational trust […]. (Dekker, 2004, p. 45)

Further, also,

> [P]artners believe mutual transparency of behaviours and results to be an important basis of their trusting relationship. […] goal setting, performance measurement and information sharing, contribute to this transparency. (Dekker, 2004, p. 45)

Dekker's explanation is that trust develops and emerges from repeated interactions between a trustor and a trustee and that it is based on the information available to the trustor from within the relationship. Mechanisms to build trust include deliberate risk taking and increasing interactions, such as through joint goal setting and problem solving. The type of trust that Dekker refers to in relation to open, transparent and shared accounting information is of a more goodwill type. The level of analysis is the dyad.

Table 5.18 Dekker (2004)

What and How	Variable Meaning and level of analysis	Why	Theory
Trust influences accounting information, which in turn influences trust. T ⟶ MA ⟶ T	**MA:** 'perception of MA information' [transparent & open] **Trust:** goodwill **Level:** dyad	Trust develops and emerges from repeated interactions between a trustor and a trustee and it is based on the information available to the trustor from within the relationship. Trust can be built over time. Further, mechanisms to build trust include deliberate risk taking and increasing interaction such as through joint goal setting and problem solving.	TCE and organizational theory; a value creation perspective.

5.2.7 The effect of control system on trust and cooperation in collaborative environments (Coletti et al., 2005)

Author(s)	Year	Journal
Coletti et al.	2005	The Accounting Review

This study examines the effect of management accounting systems[19] on trust and cooperation in a collaborative environment. The result shows that the management accounting system can enhance the level of trust among collaborators. Further, the intervening role of cooperation provides the instrument by which management accounting processes can increase trust in collaborative environments. Thus, the result shows an increasing gain of the management accounting system developed from the trust that management accounting-induced cooperation bring about. The important feature of management accounting in this respect is visible and observable information; observed cooperation by parties is of importance for trust.

> […] [T]he trust-building benefits of control […] may not be experienced in collaborative settings without feedback mechanisms – that is, in settings in which […] cooperation cannot be observed. (Coletti et al., 2005, p. 497)

The explanation is that the cooperation observed by collaborators, through performance feedback, provided by visible and observable information, causes collaborators to attribute the observed collaboration to the inherent trustworthiness of their collaborative partners. This perceived trustworthiness and consequent increased level of trust have a positive effect on the subsequent level of cooperation.

Trust is defined as one's perception of another's trustworthiness. And trustworthiness is seen as 'an innate personal characteristic reflecting one's preference for upholding some social norm of behavior, regardless of economic incentives' (p. 481). The theory behind the result predicts that:

> Controls mitigate relational risk by changing the *incentives* for opportunistic behaviour. That is, periodic monitoring increases the probability that opportunistic behaviour will be detected, and sanctioning (rewarding) systems impose penalties (bonuses) on collaborators who (do not) engage in such behaviour. (Ibid, p. 480)

The management accounting system fosters cooperation, which leads to increased trust because of the tendency of observers (other collaborators)

[19] This study is an experiment where a 'control system' is set up. However, they refer to management accounting practices when they discuss the implications of the results.

to attribute others' behaviors to dispositional characteristics (e.g. trustworthiness). The authors write:

> When collaborators cooperate in the presence of a control system, observers are likely to at least partially attribute this control-induced cooperation to the collaborators' inherent trustworthiness. (Coletti et al., p. 484)

Consequently, the management accounting system positively affects the level of trust among collaborators. Even though collaborators are unlikely to ignore situational factors, the tendency to attribute cooperative behavior to dispositional factors will lead to a strong judgment of trustworthiness. The theoretical perspectives used in this study are AT, framing and attribution theory. The variable model used in this study is the intervening variable model. Management accounting brings about cooperation, which, in turn, affects trust. The level of analysis is the dyad, i.e. two cooperating parties. The authors write:

> We provide evidence that in collaborative settings, control induces cooperation, which in turn, positively affects trust. (Coletti et al., 2005, p. 496)

Table 5.19 *Coletti et al. (2005)*

What and How	Variable Meaning and level of analysis	Why	Theory
Visible MA information on cooperation and performance will cause parties to observe and reflect about others' performances and cooperation efforts and thus attribute cooperation to parties' inherent trustworthiness, which leads to trust between parties. MA $\longrightarrow$ T	**MA:** 'perception of MA information' [visible] **Trust:** trustworthiness **Level:** dyad	When collaborators cooperate in the presence of a control system, observers are likely to attribute this control-induced cooperation to collaborators' inherent trustworthiness.	AT and psychology; framing and attribution theory

5.2.8 Accounting, network complementaries and the development of inter-organisational relations (Mouritsen & Thrane, 2006)

Author(s)	Year	Journal
Mouritsen & Thrane	2006	Accounting Organization and Society

This study discusses accounting technologies in interorganizational networks. The study concludes that accounting technologies can structure, establish and change a network. Further, it creates durability and predictability. Related to accounting and trust, the study shows that reflexive use of accounting creates confidence in the system, i.e. system trust. The relationship is described in the following way:

> The systemness of the management technologies created a certain kind of confidence in its persistence. This trust in systems concerns predictability [...]. (Mouritsen & Thrane, 2006, p. 270)

Accounting is consequently creating trust and confidence in how the organizational and financial arrangements will work.

The relationship between accounting and trust can be interpreted as a direct positive association from accounting to trust in the accounting system. The level of analysis is the network of relationships.

Table 5.20 Mouritsen & Thrane (2006)

What and How	Variable Meaning and level of analysis	Why	Theory
Accounting is associated with system trust. MA $\longrightarrow$ T	**MA:** 'reflexive' use **Trust:** system trust **Level:** network	Through a reflexive accomplishment, trust in the accounting system is created. Accounting technologies are reflexively utilized and thereby they create trust and confidence in its durability and predictability.	Giddens, discussion related to trust in abstract systems and actor network theory.

5.2.9 The role of functional specialists in shaping controls within supply networks (Cuganesan, 2006)

Author(s)	Year	Journal
Cuganesan	2006	Accounting, Auditing & Accountability Journal

Cuganesan (2006) investigates interorganizational supply relationships and how functional specialists, such as accountants, help trust and formal control to develop. The study is a case study of an Australian metal manufacturer and its supply chain relationships. The part of the study that informs the relationship between trust, accounting and control is of particular importance here.

The study concludes that low levels of trust lead to the introduction of formal control and accounting.

The relationship between management accounting and trust is of a direct linear type where low (high) levels of trust are associated with high (low) levels of management accounting (control). More precisely, this means that when trust is low, extensive accounting control is visible.

The level of analysis is the relationship between a company and its suppliers.

Table 5.21 *Cuganesan (2006)*

What & How	Variable Meaning/level of analysis	Why	Theory
Trust is associated with management accounting information. T - -► MA	**MA:** 'perception of MA information' [high levels of relevance] **Trust:** competence, goodwill **Level:** dyad	Low levels of trust tighten accounting control.	Unclear

5.2.10 The relationship between trust and control in international joint ventures (Emsley & Kidon, 2007)

Author(s)	Year	Journal
Emsley & Kidon	2007	Contemporary Accounting Research

This study focuses on trust, information and control in an international joint venture. The results show that output, social and behavioural controls provide information that is relevant to building competence trust at an operational level, but only social controls provide information for building goodwill trust at an executive level. Output control is conceptualized according to the authors as influencing behavior by specifying desired outputs and monitoring their achievements. Behavioral controls reduce uncertainty by setting appropriate boundaries for behavior. Social controls specify neither the output nor the behavior, but influence is extended by developing shared values and beliefs, according to the authors. Trust is conceptualized as competence and goodwill trust. Competence trust the trust that partner X has about partner Y's technical ability to execute the activities of the joint venture. Goodwill trust is viewed as partner X's confidence in predicting that partner Y will not intentionally harm partner X's interests.

The authors are interested in the link between information and different trust types at different levels in the company. Their results show that information from social control, behavior control and output control lead parties to trust their partners' technical ability to execute activities in a joint venture at the operational level. However, only information from social control, i.e. from repeated interactions and a sense of commitment to joint action (aimed at developing shared values and beliefs about the future), leads to goodwill trust between partners in the joint venture (a positive expectation about their partners' behavior, that the partner not intentionally will harm their interests) at the executive level. For example, information on budget variances cannot inform about a partner's goodwill. Further, for example, intentions to harm a partner's interest are unlikely to be expressed as an output. However, from social controls (i.e. the development of shared values and beliefs about the future through a sense of commitment to joint action), goodwill-related information will be received. Hence, different types of information are needed in order to understand how different types of trust are developed.

The underlying feature of this specific management accounting variable thus concerns the perception of how 'meaningful' the information from the system is for trust development in a dyad. The management accounting system (i.e. output control) cannot inform about goodwill-related issues at the executive level but is able to inform about competence-related issues at the operational level. This is important because trust needs information and different types of trust needs different types of information. Further, different types of trust are important at different levels in the company, while at different levels different types of controls seem to play a more or less important role. At the executive level, the aim is to develop goodwill trust, and this can only be done by information from social control and not with information from the management accounting system. As the quote describes:

> [The] executives received minimal goodwill-related information from output and behavioral controls [i.e. accounting information]. (Emsley & Kidon, 2007, p. 853)

However,

> […] interaction [between executives in the joint venture] developed social controls and the information emanating from them enhanced goodwill trust. (Emsley & Kidon, 2007, p. 854)

At the operational level, the aim is to develop competence trust using information from the management accounting system. The relationship between trust and management accounting is described as an additive linear model, with one dependent variable and one independent variable. At the operational level, management accounting information leads to competence trust:

> […] output […] control provide information relevant to building competency trust at an operational level, but only social controls provide information for building goodwill trust at an executive level. (Emsley & Kidon, 2007, p. 837)

The level of analysis is the dyad.

Table 5.22 Emsley & Kidon (2007)

What and How	Variable Meaning and level of analysis	Why	Theory
The MA system produces information that is meaningful for competence trust at the operational level (but does not produce valuable information for goodwill trust at the executive level). MA $\longrightarrow$ T	**MA:** 'perception of information' [meaningful] **Trust:** competence **Level:** dyad	Uncertainty about partners can be managed by producing information that either controls a partner or allows it to be trusted. Different types of control produce different kinds of information that lead to control or trust. However, the result shows that this differs between the operational level and the executive level within a joint venture.	TCE

5.2.11 Supply-Chain Accounting Practices in the UK Retail Sector: Enabling or Coercing Collaboration? (Free, 2007)

Author(s)	Year	Journal
Free	2007	Contemporary Accounting Research

This study examines accounting practices associated with category management in supply chains. These different practices, tools and techniques include OBA and joint performance measures. The study aims at showing how actors draw on and use accounting practices in different ways. More precisely, two ways of using management accounting are studied, i.e. the enabling and coercive use of accounting.

Coercive use refers to the adversarial appropriation of cost saving objectives, while enabling use refers to joint problem solving and flexible adaption. Two different functions are thus visible for management accounting, in buyer-supplier relationships. Further, the functions are complex and dynamic, filled with different objectives and meanings and used in different contexts. Enabling use opens up opportunities for learning, adaption and growth, leading to a more trust-based relationship. By contrast, coercive use is seen as more unfair and untrustworthy, because a dominant organization seeks to appropriate profit from suppliers, leading to low levels of trust between actors. The factors of enabling/coercive use are associated with high/low levels of trust, in a direct linear way. The relationship is the level of analysis.

Table 5.23 *Free (2007)*

What and How	Variable Meaning and level of analysis	Why	Theory
Accounting is associated with trust. MA $\longrightarrow$ T	**MA:** 'enabling/coercive' use **Trust:** unclear **Level:** dyad	Enabling use leads to innovation, learning and adaption, which is favorable for the relationship. By contrast, coercive use leads to adversarial relationships, with low levels of trust.	Supply-chain relationship and accounting theory.

5.2.12 Walking the talk? Supply chain accounting and trust among UK supermarkets and suppliers (Free, 2008)

Author(s)	Year	Journal
Free	2008	Accounting Organizations and Society

Free (2008) investigates the relationship between interfirm accounting practices and trust in interorganizational relationships. The most important feature of the (implicit trusted) accounting system is a reflexive use of the system (i.e. in a manipulating way). The information produced by the system is used to *'induce competitive bids from rivals'* (p. 652) and thus the perceptions of a partner's trustworthiness become very low. The level of analysis is the interorganizational dyad.

This study recognizes the social context for trust and the complex relationship between trust and accounting practice between actors in a supply chain. The result suggests that certain forms of calculative practices are used in a way that is unsuited to the constitution of trust-based relations. In other words, management accounting is used to create competition through the provision of sensitive sales data to a range of potential suppliers, seen as rivals.

The result is explained in light of Giddens' (1990) structuration theory. Accounting, with its high degree of system trust, is implicated in the acquisition of power and domination. Power and domination are exercised over trust. Trust is defined as the rational process of establishing the trustworthiness of a trustee by a trustor. The concept is borrowed from Hardin's (2002) concept of trustworthiness.

Formal accounting techniques and information technology, i.e. strict financial and operational controls and tight performance targets, are used to control other partners in the supply chain. Thus, the use of OBA[20] in a relationship where power and domination are exercised does not foster trust between actors in a relationship. This explanation is expressed in the following quote:

> […] the stated goals and ascribed trust based benefits of category management [OBA] may be unrealistic in organizations that have their history and power relations steeped in hierarchical, autocratic and adversarial buyer-supplier relations. (Free, 2008, p. 649)

[20] OBA is here seen as a mode of supply chain accounting that increases interorganizational commitment and provides a forum for fruitful learning and dialogue, by providing sensitive sales data to a range of potential suppliers (Free, 2008, pp. 651-652).

The main message concerning trust and management accounting is that management accounting has a negative influence on trust between parties in the industry. The variable model used in this study can thus be described as an additive model, where the use of OBA, in a reflexive and manipulating way, has a negative effect on trust. Several quotes from the article illustrate this relationship:

> The interviews provide evidence suggesting that certain forms of calculation [OBA] […] can be *deployed in a way* that is incompatible with the constitution of trust-based relations. (Free, 2007, p. 650, emphasis added)

> The expansive use of OBA to engender competition […] and regular surveillance did little to promote trust between organizational actors […]. (Free, 2008, p. 650)

> […] accounting techniques such as OBA and joint performance management introduced amid 'trust talk' can act to undermine trust in buyer-supplier relations. (Free, 2008, p. 629)

The level of analysis is the specific industry in this study, namely the UK retail industry.[21] The model is thus designed to describe between-industry differences in the use of OBA, i.e., the statements about OBA and trust hold for the specific industry.

Table 5.24 *Free (2008)*

What and How	Variable Meaning and level of analysis	Why	Theory
The MA system affects trust negatively. MA - - ▸ T	**MA:** 'use' of accounting information [manipulative] **Trust:** perception of trustworthiness **Level:** industry	Accounting, with its high degree of system trust is implicated in the acquisition of power. Power and domination are exercised over trust, i.e. the system is used in a way that does not lead to trust between supply chain partners.	Institutional theory.

[21] Although the level of analysis is the industry, a specific interorganisational relationship (a leading UK retailer and its suppliers) is used as a proxy for the whole industry. This implies that the trust variable (interorganizational trust) is used as a proxy for all relationships in the whole industry (interindustry trust).

5.2.13 The governance of lateral relations between and within organizations (Van der Meer-Kooistra & Scapens (2008)

Author(s)	Year	Journal
Van der Meer-Kooistra & Scapens	2008	Management Accounting Research

This study explores the relationship between the character of lateral relations between and within organization and the types of control/governance packages use to manage these types of relations. The authors investigate lateral relations between parties, where parties are equal in a hierarchical sense but highly interdependent. The environment and tasks are considerably complex and the context is continuously changing. This demands information and knowledge sharing between parties, managing and securing cooperation and trust between parties, while at the same time maintaining a competitive relationship, flexibility of activities, but also over time stability and structure. The paradoxical features of these lateral relations are thus: cooperation/competition, flexibility/stability and successive/joint leadership.

These features require different forms of control practices that need to support and promote all these features. Such practices also need to balance firmness and flexibility. Coordination is needed but also freedom to improvise in order to facilitate flexibility and knowledge sharing, cooperation and trust. Traditional management control systems need to be complemented with other forms of control in order to cope with firmness and flexibility, cooperation and competition, and flexibility and standardization. The results of their study show that different control types were used to manage these features and that the tension between the different types of controls was manage/accommodate through discussion and dialogue.

Related to management accounting and trust per se, this result is related to the features of accounting information and trust in competence and favorable intensions. Accounting information needs to be responsive and flexible, but also needs to support planning and standardization. Further, and most importantly for trust, is the feature concerning the sharedness of accounting information. The study shows that highly shared accounting information is related to trust development and cooperation. The relationship between trust and accounting is thus described as a direct linear relationship, where highly shared accounting information is related to high levels of trust. The level of analysis is the dyad.

Table 5.25 van der Meer-Kooistra & Scapens (2008)

What and How	Variable Meaning and level of analysis	Why	Theory
Management accounting information influences trust. MA → T	**MA:** 'perception of MA information' [shared] **Trust:** rational/emotional **Level:** dyad	Shared management accounting information leads to trust and cooperation between parties.	Organizational theory, accounting theory related to different use of accounting

5.2.14 The relations between transactional characteristics, trust and risk in the start-up phase of a collaborative alliance (Langfield-Smith, 2008)

Author(s)	Year	Journal
Langfield-Smith	2008	Management Accounting Research

This study is about the start-up phase of a collaborative alliance between two companies. The start-up phase is foremost about making the total cost of the project acceptable to both partners in the alliance. Implicitly, this means that the management accounting process needs to be *accepted* and *agreed on* by both parties. Further, it seems that *a participatory* process is needed in this respect or the project will not come to an agreement. Thus, the management accounting variable is about participative and agreed management accounting process.

Other factors that are investigated and explicitly modeled in this study include risk, trust and transaction character which all play a role in making the alliance work. The initial perceptions of trust, risk and the character of the transaction lead to acceptance and agreement on the management control package, which includes control mechanisms such as behavior, output and social control and the different processes/activities leading to the development of trust and the mitigation of risk.

The relationship between management accounting and trust is implicitly discussed in this study. The two most important features of management accounting, i.e. agreed and participative processes, both affect competence trust and goodwill trust, because trust develops over time through learning and adaption in close interactions. Sharing information and joint management accounting activities create a situation where trust can develop. Over time, trust can strengthen through the development of mutual interests. The relationship between management accounting and trust is thus of a linear additive type where management accounting influences competence trust and goodwill trust.

Competence trust is defined as '*expectation of technically competent role performance*' (p. 348), and is related, according to Langfield-Smith, to '*a partner's ability to perform according to specified agreements or contracts*'. Goodwill trust is defined as the '*perceptions of a partner's intention to perform in accordance with those agreements*' (Ibid). Management accounting is directly related to output controls and involves the following activities: '*measuring and monitoring outputs of operations and behaviors through performance measures*' (Langfield-Smith, 2008, p. 349).

The level of analysis is the dyadic level.

Table 5.26 Langfield-Smith (2008)

What & How	Variable Meaning/level of analysis	Why	Theory
Management accounting fosters trust. MA → CT MA → GT	**MA:** 'perception of MA process' [participative, agreed/accepted] **Trust:** competence and goodwill **Level:** dyad	Trust develops over time through learning and adaption in close interactions. Sharing information and joint management accounting activities creates a situation where trust can develop. Participation and agreement on specific management accounting processes, thus helps foster trust.	TCE

5.2.15 Management control systems as inter-organizational trust builders in evolving relationships: evidence from a longitudinal case study (Vélez, et al., 2008)

Author(s)	Year	Journal
Vélez et al.	2008	Accounting, Organizations and Socity

Vélez et al. (2008) explore the longitudinal effects of management accounting and control on trust between a manufacturing firm and its distribution channel. Their main thesis is that even when trust is well established in a mature stage of an interorganizational relationship, the management accounting and control system can fosters conditions that favor and build trust. Their main explanation is that when interorganizational relationships mature, they have greater scope and complexity, and this requires greater confidence in cooperation and in turn places new demands on the management accounting and control system. This system provides visibility and gives opportunities to demonstrate trustworthiness. The study uses Mayer et al.'s (1995) definition of trust: *'the willingness of a party to be vulnerable to the actions of another party on the expectation that the other party will perform a particular action which is important to the trustor'* (p. 970). They further conceptualize trust as competence trust and goodwill trust.

Here, their result is related to the management accounting system (i.e. result/outcome control). The study shows that 'participative' management accounting processes enhance competence trust. They write, for example:

> [Management accounting] creates a frame where information transfers knowledge and in turn builds competence-based trust. (Vélez et al., 2008, p. 984)

In addition, management accounting information provides a common language and evidence with greater objectivity, which is needed in order to reinforce the perceptions of ability and competence. Through 'objective' management accounting information, parties can assess each other's competences. Consequently, management accounting has a favorable effect on competence trust.

Further, in the process of discussing and establishing joint objectives (i.e. participative management accounting processes), the company shows sensitivity to channel members by creating a forum for debate. This strengthens channel members' perceptions that the company is acting in their best interests and thus increases goodwill trust.

In addition, trust makes parties take more risks in the relationship, which augments its scope. Consequently, the interorganizational relationship will evolve over time and, most importantly, such development will prompt adaption in the management accounting system. This places demands on accounting information, requiring it to expand its scope (e.g. to disclose more and new information). Further, the sharing and disclosure of new and more accounting information is also considered to be a risky behavior and a signal of trustworthiness and it will therefore deepen the trust level. In short, trust influences accounting information, which in turn leads to higher levels of trust.

The model is of a linear intervening type where the features of management accounting information and processes influence both competence trust and goodwill trust. Later, trust has a feedback effect on management accounting, demanding more and newer information. The level of analysis is the dyadic level, even though the focal company has different relationships within the channel (and is not restricted to only one partner).

Table 5.27 *Vélez et al. (2008)*

What and How	Variable Meaning and level of analysis	Why	Theory
Management accounting influences trust, which in turn influences accounting information, and thus trust. MA → T MA → T → MA → T	**MA:** 'perception of MA information' [objective & visible] 'perception of MA processes' [participative] **Trust:** competence, goodwill **Level:** dyad	Trust and management accounting affect each other during the evolvement of an interorganizational relationship. Through features such as objective and visible information, parties can assess each other as trustworthy. Further, through participative processes parties can develop goodwill trust in each other. Through sharing more and new information and the already established trust level, parties' risk taking behavior is visible and this in turn fosters more trust, which creates more cooperation and consequently places put more demands on the management accounting system.	Trust theories.

5.2.16 Ex ante governance decisions in inter-organizational relationships: a case study in the airline industry (Neumann, 2010)

Author(s)	Year	Journal
Neumann	2010	Management accounting research

Neumann (2010) discusses opportunism, information asymmetry and governance decisions. She argues that the success of an interorganizational relationship is dependent on providing each other with relevant information and a need to develop trust. She explores the relationship between trust and governance structure in the course of a relationship. She finds that applying formal governance and control mechanisms, in daily business, always implies information sharing and social interaction between individuals. By that, common values and norms are developed. In short, she argues, from a TCE perspective, that compliance with formal governance mechanisms signals trustworthiness and an intention to behave cooperatively, even at the expense short-term self-interest. This means that formal governance and control mechanisms have a positive effect on trust. An important part of the control structure is thus management accounting information, which provides information to parties in an interorganizational relationship in order to reduce information asymmetry and foster trust. Neumann writes about the feature of management accounting information:

> Applying formal governance mechanisms in daily business always implies information sharing and social interaction between individuals in the partner firm. (Neumann, 2010, p. 225)

The model type between management accounting and trust is of a linear additive type. Shared management accounting information causes ‘thick’ trust because information signals parties’ trustworthiness and intentions to behave cooperatively. Further, it facilitates the development of positive expectations of the other. The level of analysis is the dyad. Her model can be found in the following quote:

> Compliance with formal governance mechanisms signals a firm’s trustworthiness and intention to behave cooperatively […]. Consequently, formal governance mechanisms can facilitate the development of positive expectations of the other partner, its abilities and benevolence, thereby building up goodwill (or ‘thick’) trust). (Neumann, 2010, p. 225)

Table 5.28 Neumann (2010)

What & How	Variable Meaning/level of analysis	Why	Theory
Management accounting information influences trust. MA ⟶ T	**MA:** ‘perception of information’ [open, visible and shared] **Trust:** thick **Level:** dyad	Shared management accounting information causes ’thick’ trust because information signals parties’ trustworthiness and intentions to behave cooperatively. Further, it facilitates the development of positive expectations of the other. (Shared information reduces information asymmetry and the potential to behave opportunistic).	TCE and trust

5.2.17 Governing cooperation hazards of outsourced municipal low contractability transactions: an exploratory configuration approach (Johansson & Siverbo, 2011)

Author(s)	Year	Journal
Johansson & Siverbo	2011	Management Accounting Research

This study investigates the governance and control of outsourced public sector activities, such as different welfare services. It focuses on the relationship between public sector organizations and their suppliers. The aim is to show how public sector organizations manage cooperative problems. The study draws on an extended TCE reasoning, implying that relational and institutional factors are important in understanding governance structures. It also has a rather strict and narrow focus on control, where trust issues are only implicitly discussed.

The main aim of the study is to understand how efficient organizations can control their suppliers, in light of different contexts and contingencies. It does not aim at explaining and understanding trustworthiness or trust per se; it is nevertheless possible to trace a relationship between management accounting and trust. Trust is in the form of a proxy for how efficient the relationship is perceived by the public sector organization (the principal). Further, trust is defined as positive expectations about the behavior of the supplier. Trust thus constitutes a proxy for a perfect fit between the governance package and the context. Management accounting is part of the governance package, and it thus influences the level of positive behavior expectations.

The results of the study, related to management accounting and trust, show that it is important to develop an interorganizational information system in order to have access to relevant information, but also to be able to participate in suppliers' budgeting processes. This makes it easier to control the agent, and positive behavior expectations will be present.

The study also shows that a too intense and excessive use of management accounting (result control) can undermine trust. Related to the use of management accounting, the explanation here focuses on a 'crowding out effect'. When suppliers are exposed to excessive control, they might lose their intrinsic motivation and start to change their behavior, i.e. they will shift their behavior to simply fulfilling formal agreements, which are likely to be incomplete. As a result, the principal's trust in the agent will be reduced.

> […] by imposing to much control on the suppliers, the municipalities [the principals] could initiate a dynamic interaction between trust and control ending up in reduced expectations of positive supplier behavoiur. (Johansson & Siverbo, 2011, p. 306)

Two associations are visible: management accounting use affects trust in a direct linear way and management accounting information also affects trust in a direct linear way. The level of analysis related to the outcome variable is the effectiveness of the principal-agent relationship.

Table 5.29 Johansson & Siverbo (2011)

What and How	Variable Meaning and level of analysis	Why	Theory
Management accounting information and management accounting use influences trust. MA → T MA → T	**MA:** 'perception of MA information' [accessible, relevant] 'use' [too intense & excessive] **Trust:** rational **Level:** dyad	Shared management accounting information systems and shared open information signal trustworthiness. Shared information mitigates potential cooperation hazards. Too intense and excessive use of management accounting can undermine positive behavior expectations. Owing to a crowding out effect, where agents lose intrinsic motivation and start to perform to lower level, principals' trust in agents will thus be reduced.	TCE and agent/ principal reasoning.

5.2.18 Management control in public sector Joint Ventures (Cäker & Siverbo, 2011)

Author(s)	Year	Journal
Cäker & Siverbo	2011	Management Accounting Research

This study focuses on the management control of vertical and horizontal municipal joint venture relationships. The interest lies in relational factors that affect the whole control package in vertical and horizontal joint venture relationships. Trust is one factor among others that affects the control package. The result of the study shows that the relationship between trust and control is of multifaceted and dynamic nature. The types of trust referred to between actors are calculative trust, competence trust and goodwill trust. The findings show that high trust leads to underdeveloped control. Further, diminished trust leads to tighter control.

The main association between trust and control is that high trust is associated with management accounting information that is underdeveloped and not utilized because of the high trust that is evident. The explanation is referred to as 'the inverted crowding out effect'. The explanation is that trust and control are seen as alternative uncertainty reduction mechanism, which in a very high trust environment control can be seen as unnecessary. Owing to high trust, actors are not willing to install and utilize control because of the fear of impairing trust. As a consequence of this inverted crowding out effect, management accounting information (control) will be underdeveloped. The association between trust and management accounting is that high levels of trust cause low levels of control, which implies that management accounting information is not utilized or underdeveloped, i.e. seen as having low relevance. The level of analysis is the relationship between actors. Cäker and Siverbo (2011) write:

> This allow us to analysis how different control packages develop within different relationships, therefore relationships (vertical and horizontal) are the units of analysis in this paper. (Cäker & Siverbo, 2011, p. 335)

Table 5.30 Cäker & Siverbo (2011)

What and How	Variable Meaning and level of analysis	Why	Theory
Trust is associated with management accounting information. T – –► MA	**MA:** 'perception of information' [low levels of relevance] **Trust:** goodwill, competence, calculative **Level:** dyad	High trust levels make accounting control underdeveloped and unnecessary because of an inverted crowding out effect, i.e. a fear of destroying trust if installing control.	TCE and agent/ principal reasoning.

5.2.19 In TripAdvisor we trust: rankings, calculative regimes and abstract systems (Jeacle & Carter, 2011)

Author(s)	Year	Journal
Jeacle & Carter	2011	Accounting Organization and Society

This study describes how Tripadvisor has commercialized trust through a trustful website, where a calculative (accounting) practice is the core substance of that construction (rankings). The phenomenon this study focuses on is thus the evaluation and ranking of hotels, restaurants and other travel attractions.

The study discusses calculative practices embedded in abstract systems as an important property of such systems. The study shows how the use of accounting measures (seen as objective, specific and authentic) can facilitate trust in abstract systems.

One important feature of accounting measures is that they can convert subjective judgments into objective measures that have a character of truthfulness and fairness imbedded. The website purposefully uses accounting measures in order to create trust in the site, i.e. the reflexive use of accounting creates trust in the system and its measures (rankings).

Subjective judgments, from authentic voices, consequently become objectified. Further, personal trust is important at access points of the abstract system; that is, the abstract system presents itself at access points in order to facilitate trust in the system. How accounting information is used at these access points is of main importance for trust.

The relationship between accounting and trust is a direct association between accounting and trust in the accounting system.

***Table 5.31** Jeacle & Carter (2011)*

What and How	Variable Meaning and level of analysis	Why	Theory
Accounting is associated with system trust. MA $\longrightarrow$ T	**MA:**'reflexive' use **Trust:** system trust **Level:** unclear	Through the reflexive use of accounting measures, trust in the accounting information is created. Accounting measures are reflexively and smartly utilized and thereby create trust and confidence.	Giddens' discussion related to trust in expert abstract systems.

5.3 Map C - Management accounting change/implementation

5.3.1 Performance measurement and reward systems, trust and strategic change (Chenhall & Langfield-Smith, 2003)

Author(s)	Year	Journal
Chenhall & Langfield-Smith	2003	Journal of Management Accounting Research

This study examines the role of a performance measurement and reward system in a manufacturing company. The result of the study shows that this system supports the development of organizational trust but inhibits the development of personal trust, as it is a mechanistic form of control that is compatible with organizational trust but not personal trust. Organizational trust builds on a contract between parties that attempts to guarantee trust (explicit commitments), but also includes an implicit commitment to cooperate.

Organizational trust thus fosters cooperation in and the mutual understanding of coordinated, purposeful and collective action that can enhance solidarity between organization members. Where there is organizational trust, both managers and employees commit to act in a coordinated way. However, this form of trust relates only to gaining potential (economic) personal benefits from cooperative action. Thus, organizational trust is not dependent on shared common values and beliefs, as in personal trust. When a performance measurement and reward system is used, organizational trust is likely to develop but it inhibits the development of personal and more emotional types of trust. The relation between the formal system and personal trust is expressed in the following way:

> In situations of high personal trust, formal performance measurement and reward systems, such as gain sharing, may become unnecessary [...] (Chenhall & Langfield-Smith, 2003, p. 122)

The features related to the management accounting variable concern the perception of the management accounting process in both the implementation and the execution stages. If members have the opportunity to participate in the process, they will accept the process and perceive it as fair. Overall, this leads to committed parties that jointly agree to cooperate, and this agreement or 'contract' is the implicit meaning of 'organizational trust'. The features that the management accounting variable posses are expressed in the following sentences:

> *Participative* implementation encouraged *acceptance* of the program. (Chenhall & Langfield-Smith, 2003, p. 124, emphasis added)

And,

> Employees perceived the performance measures to be *fair*. (Chenhall & Langfield-Smith, 2003, p. 133, emphasis added)

The variable model used in this study can be described as an intervening variable model. The level of analysis is the relationship between the principal and employees. But, it is the aggregate effect of individuals in the organizational that is of interest, not individuals per se. For example, trust among members in the organization is analyzed at the organizational level and not at the individual level. It is a shared trust orientation that is of importance to understand.

Table 5.32 *Chenhall & Langfield-Smith* (2003)

What & How	Variable Meaning/level of analysis	Why	Theory
Implementation processes affect the MA process as such, which in turn affects the development of organizational trust but inhibits the development of personal trust. Further, organizational trust leads to performance improvements. MA → MA → OT → PER OT ⇢ PT	**MA:** 'perception of MA implementation' [participative] 'perception of management accounting process' [participative, fair and accepted] **Trust:** organizational trust includes elements of explicit and implicit commitments between parties to cooperate. Personal/goodwill trust **Level:** Principal and employees	The system is a mechanistic form of control that is compatible with organizational trust but not personal trust. Organizational trust builds on a contract between parties, which attempts to guarantee trust (explicit commitments) but also includes an implicit commitment to cooperate. Where there is organizational trust, both managers and employees commit to act in a coordinated way. However, this form of trust relates only to gaining potential (economic) personal benefits from cooperative action. Thus, organizational trust is not dependent on shared common values and beliefs as in personal trust.	AT

5.3.2 Disembedding the supply chain: institutionalized reflexivity and inter-firm accounting (Seal et al., 2004)

Author(s)	Year	Journal
Seal et al.	2004	Accounting, Organization and Society

This study investigates interfirm accounting practices and the management of a supply chain in the UK PC industry. Interfirm accounting practices, seen as an abstract expert system of knowledge, play a key role in the processes of disembedding and reembedding business relations and production processes.

The first important feature drawn on in this study is the *trusted expertise* of the system, which they define as *'faith in the correctness of abstract principle (technical knowledge)'* (Seal et al., 2004, p. 76). The second feature is related to the *reflexively use* of the system by actors with intended strategies and resources to exert power. These two features are the main sources for the disebedding and reembedding processes.

Disembedding means in this study to 'lift out' of production processes and business relations by outsourcing parts of production processes. The system enables this kind of relationship that is distanced through time and space. High trust in the system and high reflexivity causes more risk in relationships and speeds up the rate of disembedding. This leads to vulnerable relationships. Consequently, commitment and cooperation between supply chain actors are hampered. Thus, the character of the disembedding process may be one of domination and power, from the outsourcer's perspective in order to cut costs and *'keep… their suppliers on their toes'* (Seal et al., 2004, p. 86). Reembedding processes are instead interpreted as close strategic partnership that are more problematic to form when the features of high system trust and high reflexivity are drawn on by actors.

In these processes, different accounting practices are used highly reflexively in order to exert power (i.e. domination) or because the practice has become an institutionalized norm in the environment (e.g. a norm sanctioned by the government). This implies that the accounting practice itself is *an object for change*, as it is constantly reformed and reproduced in light of new information. The authors refer to Giddens (1991), who describe the consequences of reflexivity in the following way:

> The reflexivity of modern social life consists in the fact of that social practices are constantly examined and reformed in the light of incoming information about those very practices, thus constitutively altering their character. (Giddens, 1991, p. 38 in Seal et al., 2004, p. 77)

This means that interfirm accounting may be conceptualized as a changed practices that is a consequence of reflexivity by actors, i.e. they are constantly questioned and reformed in the light of new information about those practices:

> Inter-firm accounting may be seen as a system based on reflexive self monitoring. The reproduction of the system is based on the reciprocity of practices. (Seal et al., 2004, p. 79)

Consequently, this implies that trusted expertise and the reflexive use of accounting systems lead to *constantly changed* or *reproduced accounting practices* in the supply chain. Trust is conceptualized as a generalized sort of trust that is routinely placed in the expert accounting system, which draws on Giddens' notion of trust in abstract systems. Trust in an abstract system means constant interaction with absent others, people one never sees or meets, but whose actions directly affect the features of one's own life.

The level of analysis in this model can be described as the industry.[22] This means that the general nature of the system conceptualized in this particular way has the same impact on all organizations in the industry.

***Table 5.33** Seal et al. (2004)*

What and How	Variable Meaning and level of analysis	Why	Theory
System trust and the reflexive use of information causes disembedding and reembedding processes and consequently constantly changed MA practices. $MA \rightarrow$ changed MA $ST \nearrow$	**MA:** 'perception of MA' [constantly reformed/changed] and 'Use of MA' [Reflexive] **Trust:** Trust routinely placed in expert systems, i.e. system trust **Level:** industry	Through trust in abstract expert systems and the reflexive use of the system and its information, these systems produce relationships that are lifted out of their contexts (e.g. outsourcing) but also reembedded (e.g. strategic partnership). Further, owingto high reflexivity, expert knowledge and attempts to enact best accounting practices, accounting processes are constantly changed and reformed.	Insitutional theory, Giddens' notions of modernity; reflexivity and system trust.

[22] Although the level of analysis is the industry, the case describes a relationship between a focal company and it supply chain partners. This relationship is used as a proxy for the statements about interfirm accounting, trust and risk at a higher level, i.e. the industry level.

5.3.3 Trust for accounting and accounting for trust (Busco et al., 2006)

Author(s)	Year	Journal
Busco et al.	2006	Management Accounting Research

The authors investigate the role of management accounting system and trust in rapid and radical cultural organizational change. The result of the study shows that the implementation and extensive diffusion of a management accounting system and trust are mutually dependent on each other and mediated by participation in and reflection on management accounting processes and routines. The mutual dependency between accounting and trust makes the organizational cultural change possible and permanent. The change involves a change in accounting routines and practices in the company, i.e. a new measurement and financial culture.[23]

Accounting, implicitly accounting change, is dependent on the intentional use of pervasive accounting rhetoric and trust in the system and its experts. Further, this relationship is mediated by individuals' ability to reflect on and participate in management accounting practices, i.e. interact, share new meaning and thus reassess existing ways of thinking. Without the ability to manage the anxiety that arises from the intensive pressure to change, change will not occur. Management accounting systems play a leading role in replacing the anxiety with a form of security and safety, and also permit participation in accounting practices and reflect on them. However, most importantly, accounting needs to be trusted from the beginning, namely system trust needs to be in place.

Generally, the relationship between management accounting and trust is described in the following way:

> MAS [management accounting system] acted *as source of trust for change*, while on the other hand, they embodied the meanings and the rationales of the new GE Way [the change] and, for this reason, they can be interpreted *as objects of trust* in themselves. (Busco et al., 2006, p. 33. emphasis added.)

One possible way of describing the model in this study is to treat it as a serie of features that are linked over time and finally lead to a changed organizational culture. Trust in the system and a new accounting rhetoric influences actors' ability to reflect critically on (new) accounting practices/processes and participate actively and competently as (knowledgeable) actors in the management accounting implementation and thus reassess

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[23] Change was triggered by a change in ownership. A new formal accounting system and measurement and financial culture was diffused into the company.

existing ways of thinking (trust in the change). This in turn leads to changed 'accounting behavior/habits'. Changed accounting behavior finally causes a permanent cultural change. This model is partly expressed in the following quote:

> We suggest that [...] the cognitive and the behavioural levels are both the medium and outcome of each other. Trust for change is necessary for implementing [management accounting systems] and accounting is needed to sustain trust for change in practice. [Management accounting systems] may be used intentionally to challenge existing ways of thinking; to unfreeze old cognitive schemes, and to enact a new set of roles, rules and routines. However, for the change to be enduring, accumulated successful experience must be re-frozen and become part of the shared organisational knowledge. [...] this was achieved through the diffusion of [...] new organisational practices based on the vocabulary [language] of accounting and measurement. (Busco et al., 2006, p. 38)

The underlying explanation is that the management accounting system provides security in the forms of routines, rules and roles, which are needed for trust to develop. When trust is present, people have the resources to challenge taken-for-granted assumptions and to overcome survival anxiety, which is needed for unlearning and change to take place. Management accounting 'empowers' people with the level of trust required to overcome learning anxiety, which is needed to stimulate change. It thus represents sources of trust (accounting for trust). At the same time, management accounting has to be trusted if the change would be permanent (trust in accounting).

Table 5.34 Busco et al. (2006)

What & How	Variable Meaning/level of analysis	Why	Theory
Individuals' ability to participate, reflect on management accounting practices and thus reassess existing ways of thinking, gives confidence and trust in the change. This mediates the relationship between system trust, accounting rhetoric and changed accounting routines and habits. ST → MA → T → MA ↗ MA	**MA**: 'Use of MA' [as an pervasive expert rhetoric] 'MA implementation' [participative, reflective] 'Perception of MA process' [changed] **Trust:** trust for system and trust for change **Level:** organizational	Management accounting provide stability in the forms of routines, rules and roles, which are needed for trust to develop. When trust is present, people have the resources to challenge taken-for-granted assumptions and to overcome survival anxiety, which is needed for unlearning and change to take place. Management accounting 'empower' people with the level of trust required to overcome learning anxiety, which is needed to stimulate change.	Institutional theory

5.3.4 Inter-organisational cost management: towards an evolutionary perspective (Coad & Cullen, 2006)

Author(s)	Year	Journal
Coad & Cullen	2006	Management Accounting Research

The study investigates interorganizational cost management between a company and its suppliers and customers, from an evolutionary change perspective. The result of the study shows initially[24] that high levels of trust between the company and its supply chain partners are associated with interorganizational cost management learning and change (i.e. a successful implementation of a cost management system. Interorganizational cost management is defined as:

> […] cooperative efforts by members of separate organisational units to modify cost structures and create value for its participants. (Coad & Cullen, 2006, p. 343).

Trust between interorganizational parties enables the implementation of an interorganizational cost management system, which later is used as a heuristic device in search for innovation. That is so because trust enables the imitation of the search routine, i.e. the specific accounting practice used as a search routine.

The explanation behind the initial analysis is based on institutional theory. Institutional practices foster a climate of innovation and change. The imitations of search routines earlier in use in another company were successfully employed to reduce costs in the company. The search routines represented the development of dynamic capabilities, which formed the basis for learning and change in the accounting practice. All this was initially facilitated by trust between members of the supply chain. Trust refers to Tomkins (2001) definition: *'[…] a belief by one party in a relationship that the other party will not act against his or her interest […] [and] the belief is held with some continuity'* (Coad & Cullen, 2006, p. 357).

The variables in this study are trust between members in the supply-chain and successfully implemented interorganizational cost management

[24] Later, the analyses show that trust can be confused with truce. The authors write: *'[…] what we have interpreted as trusting relationships […] might in fact be a truce in which conflicts of interest are suppressed by institutionalised routines which enable the different organisations to develop relatively stable working relationships'*. (Coad & Cullen, 2006, p. 365)

(i.e. in the dyad). The model shows that trust between companies facilitates the successful implementation of interorganizational cost management.

> [O]ur initial interpretation is that the [interorganizational cost management] project was facilitated by trust between members of the supply chain [...]. (Coad & Cullen, 2006, p. 362)

Table 5.35 *Coad & Cullen (2006)*

What and How	Variable Meaning and level of analysis	Why	Theory
Trust facilitates the successful implementation of accounting practices. T $\longrightarrow$ IOCM	**MA:** 'implementation of MA process' [successful] **Trust**: Tomkins knowledge based trust.	The study explains that trust can facilitate the implementation of a cost management project.	Institutional theory and evolutionary theories

5.3.5 Corporatisation and accounting change. The role of accounting and accountants in a Malaysian public utility (Nor-Aziah & Scapens, 2007)

Author(s)	Year	Journal
Nor-Aziah & Scapens	2007	Management Accounting Research

The authors investigate the impact of trust, power and resistance on an organization's budget implementation/use and organizational change. Their results show that mechanistic accounting control introduced in the organization did little to facilitate trust between the accountants and operational managers. Operational managers perceived that their autonomy was being reduced by the implementation processes; hence, they perceived the system in an unfavorable way and consequently did not feel trusted. Further, the implementation processes shifted the power balance between these two groups (the process shifted power to accountants and away from operational managers).

Given the reduction in autonomy and shift in power balance between these two groups, they needed to work together and enhance mutual trust in order to find a balance between conflicts and different interests. However, the system did not foster this because operational managers had an unfavorable perception of the system, which did little to promote mutual interest and trust.

Specifically, the features that play an important role in this study concern the implementation of a new budget system that was perceived as *a reduction in autonomy* by the users of the system. As a consequence of the reduction in autonomy, they perceived the system and its processes in an unfavorable way, influencing trust negatively. The variable model in this study can be interpreted as an intervening variable model. The implementation of a new budget system, perceived as a reduction in autonomy and power by operational mangers, lead to distrust through the intervening variable of unfavourable management accounting processes.

Table 5.36 Nor-Aziah & Scapens (2007)

What and How	Variable Meaning and level of analysis	Why	Theory
The implementation of a new budget system leads to an unfavorable perception of the management accounting process, which in turn is associated with distrust. MA ⟶ MA ⟶ disT	**MA:** 'implementation of MA' [reduction in autonomy & power] 'MA process' [unfavorable] **Trust:** rational (distrust) trust **Level:** organizational and different interest groups	Given the shift in power between these two groups, they needed to work together and enhance mutual trust in order to find a balance between conflicts and different interests. Because of the lack of cooperation and trust, the shift in power relations was an important factor in creating resistance and conflicts.	Institutional theory

5.3.6 Top management adoption of locally driven performance measurement and evaluation system: a social network perspective (Masquefa, 2008)

Author(s)	Year	Journal
Masquefa	2008	Management Accounting Research

In this study, financial controllers introduce and drive the implementation of a performance measurement and evaluation project. They establish strong ties and trust with operational members of the organization and, as advocates of the change project, reduce uncertainty and resistance to change. The study shows that trust can function as a 'facilitating interface' during the introduction of a performance evaluation system. The theory behind the explanation in this study is social network theory. Strong ties between actors in the internal company network and trust between those actors play an important role in reducing uncertainty and overcoming resistance to change.

The explanation relies on the following features. First, continuous and frequent interaction among organizational members (i.e. controllers and managers) leads to strong ties between them. Strong ties means that members trust each other with a high affective content. This enables a common agreed management accounting system solution, i.e. agreement on the management accounting processes, which reduces uncertainty and resistance to change. Finally, this leads to the successful implementation of management accounting in the social network.

The result of the study shows that the success of the change efforts depends on the nature of the relationships among the organizational members involved in the process. Trust is important for the change process to be successful. In this study, trust is conceptualized as strong ties, meaning a strong affective relationship between parties.

The variable model in this study is interpreted as an additive linear model. Affective bonds (i.e. trust) between people lead to a successfully implemented management accounting system. The explanation is that social interaction that is highly frequent and continuous, leads to strong ties between parties, which in turn leads parties to agree on a specific management accounting process. This leads to a successfully implemented management accounting system.

> […] trust, operationalized through strong ties, emerged as pivotal to reduce uncertainty during the change process and facilitate the introduction of the performance evaluation system. (Masquefa, 2008, p. 182)

[Or]

> [...] controversial changes, such as the introduction of performance measurement and evaluation systems, may have a relatively high degree of success when financial controllers develop strong ties with operational members/units. (Masquefa, 2008, p. 205)

The level of analysis is the social network in the organization. The individual actors' interactions, behaviors and responses are of major concern in this study.

Table 5.37 Masquefa (2008)

What & How	Variable Meaning/level of analysis	Why	Theory
Trust between parties in a social network leads to the successful implementation of a management accounting system. T $\longrightarrow$ MA	**MA:** 'implementation of MA' [successful] **Trust:** strong ties, affective content, goodwill trust **Level:** network	Strong social ties are important when new problematic systems are implemented. Strong ties reduce uncertainty and resistance to change. Different interests are considered in the process, and finally a common system solution is agreed upon in the social network.	Social network theory

6 MEANING, MODELS AND THEORY – A COMPARATIVE ANALYSIS

Chapter 5 described each article according to four dimensions namely, variable meaning, level of analysis, model and explanation and categorized them into three areas (Maps A, B and C). In this chapter, a comparison of studies foremost within and between maps according to the four dimensions is carried out. Similarities and differences between studies are analyzed in order to arrive at a conclusion concerning meanings and models of management accounting and trust. Finally, a conclusion and summary of each area is presented with the aim of describing similarities and differences in each area.

6.1 Map A - What is the meaning of variables and what is the level of analysis?

Table 6.1 lists all the articles included in the area of performance evaluation within organizations.

Table 6.1 *Citations, Map A.*

Map A	
1 Otley, 1978 2 Ross, 1994 3 Magner et al., 1995 4 Lau & Buckland, 2001 5 Johansson & Baldvinsdottir, 2003 6 Gibbs et al., 2004	7 Lau & Sholihin, 2005 8 Lau & Tan, 2006 9 Lau et al., 2008 10 Sholihin & Pike, 2009 11 Hartmann & Slapničar, 2009 12 Sholihin et al., 2011

6.1.1 Management Accounting

The following management accounting terms are found in studies on Map A: 'budget constrained performance evaluation', 'budget emphasis', 'unfavorable budgets', 'participative budgeting', 'use of accounting information', 'fairness in performance evaluation procedures' and 'financial performance measures' (see also Map A in Appendix C). Generally, studies on Map A addresses the phenomenon performance evaluation within organizations. This phenomenon can be seen as an activity that is carried out in the organization between a superior and a subordinate. Studies on Map A analyze the effect of performance evaluation mostly on individual's minds and behavior. The meaning and definition of all the factors studied here do, however, differ substantially between studies, as the following analysis shows. Different underlying theoretical features are drawn on in different studies. Further, these features can be classified into different categories. Three categories are identified on Map A. These are discussed next.

Perception of accounting information

One group of variables addresses how accounting information is perceived by subordinates when they are being evaluated by accounting information, for example by financial accounting targets derived from the budget. A range of such features are investigated in studies on Map A. Management accounting information may, for example, be perceived as objective, incomplete, specific, clear, important and meaningful (Table 6.2).

Table 6.2 *Features of the 'perception of accounting information'*

Level of analysis	Perception of MA information
Individual	-Incomplete (Otley, 1978; Gibbs et al., 2004) -Objective (Ross, 1994) -Clear/specific (Lau & Sholihin, 2005; Hartmann & Slapničar, 2009) -Important (Lau & Buckland, 2001) -Meaningful (Hartmann & Slapničar, 2009)

For example, Ross (1994) states that when the information utilized in performance evaluation situations is perceived as more objective compared with more subjective, it leads to more favorable effects on individuals. Objective information is not vulnerable for a subordinate's biases and idiosyncrasies. However, Otley (1978) states that accounting information is perceived as imperfect and incomplete by the subordinate when it is utilized in performance evaluation processes. That is so because such information does not take into account all the aspects of a subordinates work performance and thus has an unfavorable effect on him or her.

Except for being perceived as incomplete and objective, information can also be perceived as clear and specific. For example, Lau and Sholihin (2005) state that specific and clear measures and targets are important for individuals because they enhance the direction and clarity of tasks to be performed. Another feature of accounting information can be found in Lau and Buckland's (2001) study. They state that the perceived importance of accounting information is a key characteristic of accounting measures and targets in relation to a subordinate's willingness to participate in the performance evaluation process. Whether or not the information is important for individuals causes them to value participation in target setting processes. Finally, information can also be perceived as meaningful for the subordinate. This is an important feature of information because when information is seen as meaningful, this favorable feature is attributed to the superior who give the subordinate this information, which in turn has favorable effects on subordinates' behaviors and mental states (cf. Hartmann & Slapničar, 2009).

These features are related to the perceptions of accounting information on Map A. Altough they all address different aspects of management accounting information, per se, specific information can be of varying types. For example, it can refer to targets, measures or accounting information in performance reports. The common denominator is that variables address aspects or characteristics of management accounting information as such, and in this respect how individuals and members of organizations perceive this information.

All these aspects of accounting information refer to the overall character of accounting information as the level of relevancy and accuracy (from a subordinate's perspective) (cf. Mayer & Davis 1999; Hartmann, 2000). Hartmann (2000) discusses the appropriateness of accounting performance measures. Because of different underlying theoretical perspectives, accounting information has both functional and dysfunctional effects. Hartmann discusses, for example, completeness, relevance and the controllability of accounting measures/information. Here, the relevance of accounting information is stressed because all the identified variables on Map A, related to accounting information, have this feature in common. Accounting information can be perceived as more or less relevant from the perspective of the subordinate who is affected or impacted by the information.

Thus, the (perceived) level of the relevance and accuracy of accounting information is of overall theoretical importance, from a trust perspective. That is so because a high level of relevance and accuracy of accounting information is generally favorable for trust, because it gives acceptance for the whole evaluation process and that is the most important determinant of trust, as will be discussed later.

In sum, the overall distinct character of the category 'management accounting information' is the degree of relevance and accuracy, which concerns perceptions of accounting information, by subordinates who are the objects of the evaluations. In the majority of studies, this is analyzed at the individual level of analysis. Consequently, we now have a specific and distinct group of variables grouped under the heading 'the perception of management accounting information'.

Perception of management accounting processes

If the previously described group of variables refers to perceptions of information per se, the second group of variables instead addresses aspects of the management accounting process, such as how the management accounting process is perceived by subordinates when management accounting activities and procedures are carried out. Such process may be perceived in different ways. However, studies on Map A focus on a few variables, namely the perceptions of management accounting processes perceived as participative (Lau & Buckland, 2001; Lau & Tan, 2006; Sholihin, et al., 2011) and fair (Magner et al., 1995; Lau & Tan, 2006; Lau, et al., 2008; Sholihin & Pike, 2009; Sholihin et al., 2011).

For example, whether or not the process is perceived as participative is an important feature of the process because a participative type of process '*[...] opens up the budget target setting process for the subordinates scrutiny, thereby making the process transparent. Subordinates are also likely to accept those budget targets which they help to set more than those imposed on them by others*' (Lau & Buckland, 2001, p. 375). A participatory process is thus favorable because it may lead to acceptance for the process.

Fairness in management accounting processes is also an important characteristic of the process per se. Perceptions of fairness in management accounting processes are closely related to participation in processes. Lau and Sholihin (2005), Lau and Tan (2006), Lau et al. (2008), Sholihin and Pike (2009) and Sholihin et al. (2011) use the variable 'fairness in evaluation procedures', while Hartmann and Slapničar (2009) use the variable 'procedural justice'. The meaning of procedural justice is a fair performance evaluation process that is perceived as more accurate and less biased in the eyes of the subordinate. This implies an acceptability of the processes from the perspective of the subordinate.

These features address different aspects of the management accounting process per se, i.e. characteristics of performance evaluation procedures and processes. The common denominator of these variables is thus how individuals in organizations perceive management accounting procedures and process, i.e. how individuals feel, experience and perceive the actual performance evaluation procedure. The overall distinct character of the management accounting process, related to perceptions of fairness and participation, can thus be characterized as the perceived level of acceptance for the whole process (cf. Mayer & Davis, 1999). Participation and fairness make the process more accepted and legitimate by those who are impacted by it.

Consequently, we now have a second specific and distinct group of variables grouped under the heading of 'the perception of management accounting processes', which have the overall character as the level of acceptance. This variable group has been studied at the individual level of analysis.

Use of management accounting systems and information

One study on Map A conceptualizes the management accounting variable distinctly from other studies. Johansson and Baldvinsdottir (2003) write: '*[I]n this paper we thus aim to throw more light on how the use of accounting can create or violate trust between the parties involved in performance evaluation.*' (p. 220). Or, '*overall this story tells us how the way accounting is used [...].*' (Ibid, p. 227). Overall, these authors show that a '*confidence inspiring*' use of the accounting system is important for the performance evaluation to be successful. If the system, on the contrary, is used in a manipulative, controlling or dominated way, negative behaviors or actions will instead be the consequence. It thus seems to be plausible to interpret the meaning of the management accounting variable in this study as an intentional use of the system in certain ways. In Johansson and Baldvinsdottir's study, the system is shown to be used in both a 'confidence inspiring' and a 'manipulating' way.

Although just one study on Map A gives the management accounting variable this specific meaning, it is important to differentiate this variable from other variables on Map A. Its distinct features concern '*[...] the actions of those involved in evaluating performance*' (Ibid, p. 229) and thus the way people handle the system and its information. This feature addresses the aspects of peoples' actions, not the accounting information or accounting procedures per se. Further, it also suggests a more volitional role for the agent responsible for accounting information in the organization. The common denominator is thus how people use the system in certain ways, and the overall character of 'use' is the level of favorability. A high level of favorable use of accounting and its information is a trust creating or confidence inspiring way. By contrast, a low level of favorability can instead be characterized as a manipulating or dominating way of using management accounting and its information. Favorability is thus that perceived by those affected by accounting information.

In sum

On Map A, we can identify three distinct categories of management accounting variables. The first category addresses the perceptions of management accounting information, the second deals with management accounting processes and the last concerns the actions of those involved in and responsible for performance evaluations, i.e. the use of management accounting systems. The overall character of accounting information is the level of accuracy and relevance, the overall character of accounting processes is related to the level of acceptance and the distinct character of management accounting use concerns the level of favorability from those affetcted by the system.

6.1.2 Trust

The trust variable mostly adopted in studies on Map A is related to a subordinate's one-sided trust in her or his superior. Nine out of 10 trust variables refer to trust in superiors in a superior/subordinate relationship, i.e. a unilateral trust type. Studies addressing a subordinate's trust in his or her superior are generally interested in the individual subordinate as the level of analysis, i.e. the effect the system has on individuals' mental states.

Other trust variables on Map A are trust in accountants and trust in accounting figures. Trust in the accountant and accounting figures can be interpreted to mean that individuals in the organization primarily trust *the management accounting system*. The object of trust is thus the system.

Concerning the measurement and definition of trust, some studies only refer to a specific measurement scale, while other studies refer to a specific trust definition or trust type. For example, seven studies out of 10 use Read's trust scale, which was initially used by Hopwood (1972). One study uses Tomkins' (2001) information/knowledge-based trust and one uses Zand's (1972) definition and trust scale. Finally, one study uses 'the length of manager's tenure' as a proxy for trust (Gibbs et al., 2004). Are these different measures, definitions and types of trust an indication of different meanings of trust? Arguably, studies that use Read's and Zand's trust scales and definitions refer to some sort of judgment of another person's trustworthiness. Read's trust scale consists of questions such as 'how confident do you feel that your supervisor keeps you fully and frankly informed about things that might concern you?" and Zand's scale asks questions, such as '[y]ou have learned from your experience [...] that you can trust [your supervisor]' (Lau & Buckland, 2001, p. 377). When such questions are answered, a mental state of the trustor is induced (Nooteboom, 2002; Möllering, 2006). The person who trusts estimates whether the trustee is *trustworthy*. Further, trustworthiness is estimated in a rational manner. When people are involved in different trust ratings, they reach as a result some level of cognition-based, calculus-based or knowledge-based trust (Sztompka, 1999; Nooteboom, 2002). This means that trust is based on more or less rational reasons, calculations, knowledge and/or cognition. Studies that use trust scales such as Read's and Zand's can hence be categorized into the category of *rational trust types*. Rational trust implies a cognitive (rational) mental process that causes trustworthiness assessments.

Tomkins' (2001) definition can be characterized as a type of information-based trust, which is similar to knowledge-based trust, and this categorized into the group of rational trust types. Trust between two parties develops from information or knowledge about each other, which parties rely on when they decide if the other party is trustworthy or not. In addition, the decision to trust or not, based on the available information, is taken after rational consideration.

One study uses 'the length of manager's tenure' when referring to trust (Gibbs et al., 2004). This way of conceptualizing trust is not comparable with an estimation of trustworthiness, where trust is seen as a mental state of a trustor about a given trustee. Gibbs et al. (2004) use a proxy for trust, namely how long a manager has been in his or her position. It is assumed that the longer the tenure, the more a subordinate trust his or her superior.

Consequently, the meaning of trust on Map A is in a majority of cases a rational type of trust. One exception is Gibbs et al.'s study which conceptualizes trust as 'the length of manager's tenure'. Also, no study refers to the emotional category. In Table 6.3, the trust definitions in Map A are categorized according to rational, emotional, or 'other' trust types. A 'manager's tenure', is categorized in the 'other' category.

Table 6.3 *Trust types on Map A*

How trust is defined or measured on map A	Other Type	Rational Trust	Emotional Trust	Frequency
Read's trust scale		X		9
Information trust		X		1
Zand's trust scale		X		1
Managers tenure	X			1

In sum, the majority of trust variables are conceptualized as based on rational reasons. The object of trust is usually a superior. The object of trust is in one case the management accounting system, i.e. management accounting information and the accountant who is responsible for the system. Generally, this is a unilateral type of trust, only studied from one party in a relationship. Studies addressing a subordinate's trust in his or her superiors are interested in the individual (subordinate) level, i.e. the effect the system has on individuals' trust in a superior. Table 6.4 displays these studies and the management accounting variables, trust types, levels of analysis and objects of trust.

Table 6.4 *Management accounting and trust variables on Map A*

Study	Management accounting features	Trust type	Level of analysis	Object of trust
1. Otley (1978)	Incomplete information	Rational	Individual	Person
2.Ross (1994)	Objective information; stressful processes	Rational	Individual	Person
3. Magner et al. (1995)	Fair processes	Rational	Individual	Person
4. Lau and Buckland (2001)	Important information; participative processes	Rational	Individual	Person
5. Johansson and Baldvinsdottir (2003)	Intentional favorable use	Rational	Individual	System
6. Gibbs et al. (2004)	Incomplete information	Mangers tenure	Organization	Person
7.Lau and Sholi-hin (2005)	Specific in-formation; fair processes	Rational	Individual	Person
8. Lau and Tan (2006)	Participative and fair pro-cesses	Rational	Individual	Person
9. Lau et al. (2008)	Fair processes	Rational	Individual	Person
10. Sholihin and Pike, 2009	Fair processes	Rational	Individual	Person
11. Hartmann and Slapničar (2009)	Specific and meaningful information; Fair processes	Rational	Individual	Person
12. Sholihin, et al. (2011)	Participative and fair pr ocesses	Rational	Individual	Person

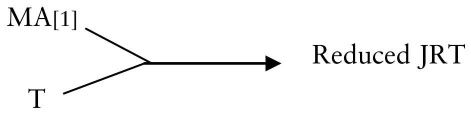
6.2 Map A - What are the directions and shapes of the relationships between variables?

In this section, all studies on Map A and their variable models are described. The factors and their specific theoretical features are described and then related to each other in specific ways, i.e. the 'whats' are combined with the 'hows'. In the panel, each model is described in graphical form. The meaning of the management accounting variable (MA) is coded with a number, namely MA[1], MA[2] or MA[3]. Each number refers to one of the three variable groups identified: [1] 'perception of management accounting information', [2] 'perceptions of management accounting processes' and [3] 'use of management accounting'. On Map A, trust mostly means rational trust and is in this section coded with a 'T'. When the code 'ST' instead is used, trust refers to system trust. Further, different types of variable models are distinguished. Finally, potential conflicts between variable models are identified and discussed.

Study number 1 (Otley, 1978) investigates the association between perceptions of accounting information (budget emphasis in performance evaluation) and individuals' attitudes and behaviors. The result shows evidence of a direct linear negative association between performance evaluation and trust. This is so because the accounting information is perceived as incomplete by the subordinate.

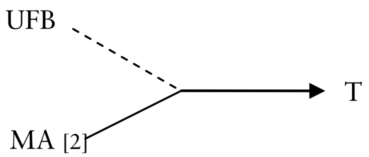
Study and citation	Variable model
A.1 Otley -78	MA[1]- - - - - - - - - - -► T [1]: 'incomplete' MA information

Study number 2 (Ross, 1994) assumes (but does not test) that performance evaluation is stressful and will lead to job-related tension. Ross' result shows that trust and accounting information interact in reducing such job-related tension because accounting information is perceived as more objective than subjective judgments. The variable model in Ross' study is the independent interaction variable model.

Study and citation	Variable model
A.2 Ross -94	 [1]: ‘objective’ MA information

In study number 3 (Magner et al., 1995), the relationship between participation in management accounting processes (participative budgeting) and trust is conditional on the value of budget difficulty. This means that employees who have received unfavorable budgets (UFB) have less negative attitudes towards budgetary decision makers when they have participated in management accounting processes (budgetary process) than when they have not.

Thus, the management accounting process and unfavorable budgets interact in affecting the dependent variable trust. When employees have received an unfavorable budget but have participated in the budgetary process, they perceive that the management accounting process is fair.

Study and citation	Variable model
A.3 Magner et al. -95	 [2]:’ fair’ MA process

In study number 4, Lau and Buckland (2001) associate management accounting information (budget emphasis in performance evaluation) with job-related tension, but this association is indirect through the management accounting process (participative budgeting) and trust. High budget-based performance evaluation is associated with high budget participation and high trust. High trust in turn is associated with reduced job-related tension. The variable model in the study is the intervening variable model. When subordinates perceive the accounting information used in performance evaluations to be important they, are more inclined to participate in the process, and this makes the process transparent and open, which in turn fosters acceptance for the process. Such acceptance causes trust in the superior who let them participate, which leads to reduced job-related tension.

Study and citation	Variable model
A.4 Lau & Buckland, 2001	MA[1] → MA[2] → T - - - - → JRT [1]: 'important' perceived MA information [2]: 'participative' MA process

In study number 5 (Johansson & Baldvinsdottir, 2003), the accountant, seen as a trust carrier, uses accounting information in a 'confidence inspiring' way and this creates trust in the accounting figures and in the accountant, i.e. system trust, which leads to improved organizational performance. The variable model is an intervening variable model. The favorable use of the accounting system and accounting information leads to trust in the system, which in turn leads to a successful performance evaluation and improved organizational performance (PERF).

Study and citation	Variable model
A.5 Johansson & Baldvinsdottir, 2003	MA[3] → ST → PERF [3]: 'confidence inspiring' use of MA

Study number 6 (Gibbs et al., 2004) assumes (but does not test) that accounting measures are incomplete (cf. Otley, 1978). Its result shows that when subjective judgments complement accounting information/measures, information may be perceived as more complete. However, in such a case, trust must be present, otherwise it is possible that the subjective judgment process may be perceived as unfair. Trust is thus assumed to reduce the perceived unfairness of subjective judgments and make the process perceived to be fairer. Thus, subjectivity and trust interact in reducing the assumed negative consequences of incomplete perceived accounting measures. Further, this interaction leads to higher organizational performance (PERF) and pay satisfaction (PS). The variable model is a moderator interaction variable model.

Study and citation	Variable model
A.6 Gibbs et al., 2004	SUBJ PERF/PS T* [1]: 'subjective' information * Years of managers' tenure In this study MA is only implicit in the assumptions. Subjectivity is the alternative to MA information.

In study number 7, Lau and Sholihin (2005) show that management accounting information (financial performance measures) that is perceived as clear and specific is associated positively with job satisfaction (JS) through the mediating effect of a fair management accounting process (procedural fairness) and trust. This study uses an intervening variable model. When information is perceived as clear and specific, the management accounting process is perceived as fairer and trust in superiors is likely to develop.

Study and citation	Variable model
A.7 Lau & Sholihin, 2005	MA[1] ⟶ MA[2] ⟶ TS ⟶ JS [1]: ‘clear’/’specific’ MA information [2]: ‘fair’ MAprocess

Study number 8 (Lau & Tan, 2006) finds that a participative management accounting process (participative budgeting) leads to reduced job-related tension through the mediating effect of a fair management accounting process (procedural fairness) and trust. A participative management accounting process leads to a fair perceived process, causing trust and reduced job-related tension. The model is an intervening variable model.

Study and citation	Variable model
A.8 Lau & Tan, 2006	MA[2a] ⟶ MA[2b] ⟶ T - - - - - -➤ JRT [2a]: ‘participative’ MA process [2b]: ‘fair’ MA process

Study 9 (Lau, et al., 2008) also uses an intervening variable model. A fair management accounting process causes job satisfaction through trust and commitment. Fair performance evaluation processes are associated with trust and commitment, leading to job satisfaction.

Study and citation	Variable model
A.9 Lau et al. 2008	MA[2] → T & C → JS [2]: 'fair' MA process

Study 10 (Sholihin & Pike, 2009) also uses an intervening variable model. The management accounting process (performance evaluation process) causes job satisfaction through trust and commitment. Fair management accounting processes are associated with trust and commitment, leading to job satisfaction.

Study and citation	Variable model
A.10 Sholihin & Pike, 2009	MA[2] → T & C → JS [2]: 'fair' MA process

Study 11 (Hartmann & Slapničar, 2009) uses an intervening variable model to show that management accounting information causes trust through high-quality performance information and fairness in management accounting processes (procedural justice). When the information is perceived as clear and specific, it leads to useful and meaningful information which causes a fair process and trust in superiors.

Study and citation	Variable model
A.11 Hartmann & Slapničar, 2009	$MA_{[1a]} \longrightarrow MA_{[1b]} \longrightarrow MA_{[2]} \longrightarrow T$ [1a]: 'clear'/'specific' MA information [1b]: 'meaningful' MA information [2]: 'fair' MA process

Study number 12 (Sholihin et al., 2011) finds that a participative management accounting process (participative goal setting process) leads to goal commitment, through the mediating effect of a fair management accounting process (procedural fairness) and trust. A participative management accounting process leads to a fair process, causing trust and goal commitment. The model is an intervening variable model.

Study and citation	Variable model
A.12 Sholihin et al., 2011	$MA_{[2a]} \longrightarrow MA_{[2b]} \longrightarrow T \longrightarrow GC$ [2a]: 'participative' MA process [2b]: 'fair' MA process

6.2.1 Comparison between models

Comparing variable models show us that studies use different types of models, including additive linear models (Otley, 1978), intervening variable models (Lau & Buckland, 2001; Johnsson & Baldvinsdottir, 2003, Lau & Sholihin, 2005; Lau & Tan, 2006; Lau et al., 2008; Sholihin & Pike, 2009; Hartmann & Slapničar, 2009) and independent variable interaction models (Ross, 1994; Magner et al., 1995; Gibbs et al., 2004). Further, the majority of studies report a direct effect of management accounting on trust. Overall, studies show either that the features of management accounting information or management accounting processes affect trust or that trust and management accounting interacts in affecting other factors.

Three studies are worth extra discussion and comparison. First, Otley (1978) and Gibbs et al. (2004) are compared because they start with the same assumption, but model factors in different ways, causing a conflict between their models. Next, Ross (1994) is compared with the other studies on Map A for the same reason.

Conflict No. 1

Otley (1978) assumes, tests and finds that the 'incompleteness' of accounting information causes low levels of trust (see Figure 6.1). Further, Gibbs et al. (2004) assume, but do not test the same assumption, i.e. the incompleteness of accounting information is related to dysfunctional behavior. Further, what Gibbs et al. (2004) actually test is the interactional effect of subjective judgments and trust on higher performance and pay satisfaction, which they find to be significant in the hypothesized direction (see Figure 6.2).

A)

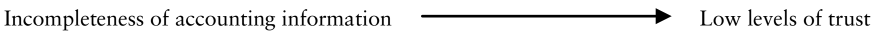


Figure 6.1 *Otley (1978)*

B)

Figure 6.2 *Gibbs et al. (2004)*

When comparing assumptions and ways of modelling factors in Figure A and B, a model conflict is visible. In Figure A (the incompleteness of) accounting information causes low levels of trust. In Figure B, the same assumption is implicit in the predictions. In order to reduce the unfavorable effects of incompleteness, the model in Figure B tests the interaction effect of trust and subjectivity and finds that these factors have favorable effects, such as pay satisfaction and higher performance. However, here we can identify a conflict between the model in Figure A and the model in Figure B. On one hands trust is dependent on accounting information, but on the other hands trust is implicitly (not explicitly shown in the model) assumed to be independent of accounting information. Otley's indication of the effect of incompleteness compared with Gibbs et al.'s assumption about incompleteness makes it unclear if trust is the effect of accounting information completeness or not.

However, in Gibbs et al. (2004) a proxy for trust is used, which is a superior's tenure. The longer the tenure, the more a subordinate is assumed to trust hos or her superior. Arguably, it is not trust per se that Gibbs et al. are studying and testing; thus it is ambiguous whether Otley (1978) and Gibbs et al. (2004) refer to the same phenomenon. When it comes to trust, these studies are not fully comparable and thus *non-competing*. Non-competing studies do not refer to the same features even if they use the same variable name. Thus, they do not explain the same phenomenon (Luft & Shields, 2003, p. 201; Covaleski et al., 2007, p. 613). If trust, on one hand, refers to how long a manager has been in his or hers position and, on the other hand, addresses an induced mental state about a trustee's trustworthiness, it refers to different phenomena. Therefore, these models and results are identified as non-competing.

Conflict No. 2

Ross (1994) assumes that performance evaluation, has a dysfunctional effect, but never tests this assumed relationship. Ross (1994) tests and finds that that accounting information (seen as more objective than non-accounting information) and trust have an interactional effect on reduced job-related tension (see Figure 6.3).

C)

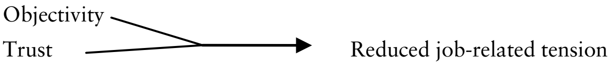


Figure 6.3 *Interaction effect, Ross (1994).*

This means that accounting information is assumed to have favorable effects on individuals. Even though Ross (1994) assumes that the evaluation process or evaluation situation per se may be perceived as stressful by the employee, he theorizes that accounting information is highly favorable for employees. Generally, all studies after Ross (1994) that discuss the features of accounting information assume that accounting information is associated with trust in an additive or an intervening way. Figure 6.4 shows this general relationship between accounting information and trust found in studies on Map A (e.g. Lau & Sholihin, 2005; Hartmann & Slapničar, 2009).

D)

Accounting information (e.g. objective) $\longrightarrow$ Trust

Figure 6.4 *An example of the general model between accounting information and trust. A direct linear model.*

However, if comparing model C with model D a conflict is visible. On one hand, trust is independent of accounting information (model C) but, on the other hand, trust is dependent on accounting information (model D). An interaction model and an additive linear model represent two different kinds of conditional relations. If trust is dependent on management accounting, a model that shows that trust is independent of management accounting is in conflict (Luft & Shields, 2003). We can thus identify an inconsistency in the models here. Whether trust is dependent on or independent of management accounting is thus a question that is not settled in the literature and needs further investigation.

Except from the conflicts described above, there is no other obvious conflict between models. All other studies use a linear, additive or intervening model. Studies add or subtract factors, but trust is always the effect of one or a few management accounting factors, which concerns the perceptions of evaluation processes, accounting information or use of management accounting.

6.3 Conclusion - Meaning and Models on Map A

6.3.1 Management accounting

In studies on Map A, three distinct categories of management accounting variables are identified. The first category addresses the perceptions of management accounting information, the second deals with management accounting processes and the last category concerns the actions of those involved and responsible for performance evaluations, i.e. the use of management accounting. The overall character of accounting information is the level of accuracy and relevance. Concerning the overall character of accounting processes, this concerns the level of acceptance for the process. Further, the distinct character of management accounting use concerns the level of favorability from the perspective of those affected by management accounting use and thus the trustor.

6.3.2 Trust

In studies on Map A, the variable trust almost exclusively addresses subordinates' trust in a superior and refers to a trustor's perceptions of the trustworthiness of the trustee. A mental state of the trustor is induced, and from that evidence about trust is derived. Trust is formed from rational consideration based on the available information and knowledge about the trustee. Trust is thus a rational type of unilateral trust, only investigated from one party of a relationship.

Studies that refer to a subordinates trust in his or her superiors are interested in the individual (subordinate) level, i.e. the effect the system has on individuals' trust in a superior. In addition, subordinates' trust in the accounting system is investigated in studies on Map A, i.e. system trust. Here, system trust refers to trust in accounting figures and trust in the accountant.

Trust is generally a consequence of the management accounting variable, i.e. an effect of different management accounting factors and their features. Variations in different perceptions of information causes individuals to also perceive the whole management accounting process in different ways and this in turn causes individuals to trust their superiors.

6.3.3 Models

Studies use different models such as additive linear models, intervening variable models and interaction models. The area can be characterized as rather non-conflicting although some potential conflicts have been identified. Problems related to conflicts between models relate to whether trust is assumed to be independent of or dependent on accounting information.

This variation in the way trust is related to accounting information (dependent on or independent of) is consequently not settled in the literature, which supports the character of the area as contradictory and mixed (Free, 2008; Hartmann & Slapničar, 2009)

Conflicts can also relate to the different ways of defining or measuring trust. An induced mental state related to the level of trustworthiness a trustor has in a trustee and a manager's tenure does not refer to the same phenomenon. Studies that do not refer to the same phenomenon are not fully comparable. In such cases, there is no actual conflict between models, because such studies are non-competing.

6.4 Theory and Assumptions – Map A

This section describes the assumptions made by the literature on management accounting and trust. The question is whether these assumptions differ largely in their basic premises or are compatible. With the aim of reconciling differences and similarities between approaches in the literature, assumptions and theories are elaborated upon. Further, in order to shed light on the relatedness between the models and theory, examples of factors and models related to these assumptions and theories are put forward. Assumptions about information, human behavior, motivation and organizations are also described and compared.

6.4.1 Theoretical area – a background

Map A has its roots in, and utilizes concepts from, the human relation school and the socio-technical school to investigate how the social context influences employee's attitudes and behavior (Burrell & Morgan, 1979). Argyris' (1952, 1953) studies can be considered to be the starting point for research in the area. He found that pressure to achieve a budget may create cognitive inconsistency in individuals' minds. This cognitive inconsistency leads to stress, interpersonal conflict and distrust and can cause dysfunctional behavior (Birnberg et al., 2007; Covaleski et al., 2007). The majority of studies derive their assumptions from cognitive psychology. Other studies lean more towards an agency theoretical perspective, although in a more relaxed form (e.g. Gibbs et al., 2004) or a combination of these perspectives (e.g. Hartmann & Slapničar, 2009).

Generally, psychological theories on Map A assume that behavior depends on individuals' mental/cognitive representations (Birnberg et al., 2007; Covaleski et al., 2007). Cognitive representations stimulate motives and emotions, and consequently guide behavior (Ibid). In this respect, management accounting can be seen as an organizational factor that individuals form a mental representation of, i.e. management accounting stimulates attention, cognition and motivation, because of the mental representations it causes.

In cognitive theories, a mental process is assumed to mediate stimuli and behavior. Two typical 'raw models' are evident in studies on Map A, which derive their predictions from this basic premise. The first model implies that the perceptions and interpretations of management accounting information form how a subordinate subsequently perceives the performance evaluation process. The process may be perceived as fair and acceptable, which in turn results in trust in the superior (e.g. Lau & Sohlihin, 2005). Figure 6.5 illustrates this raw model.

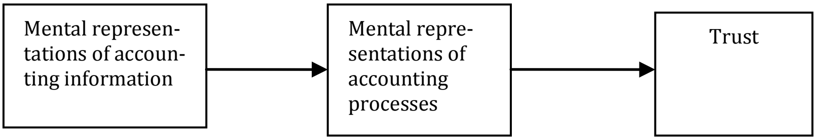


Figure 6.5 *Intervening model*

The second 'raw model' shows that mental processes and representations are assumed to reduce the unfavorable effects of formal factors in the work environment, as shown by Ross (1994). Ross (1994) shows that the mental state and attitude towards a superior (i.e. trust) are assumed to reduce the dysfunctional side effects of the formal managerial evaluation system, when individuals have also formed a favorable representation of accounting information as such. This implies that trust and accounting information interact in reducing the unfavorable effects of formal performance evaluations. Figure 6.6 shows the second raw model.

'A formal performance evaluation situation assumed to have dysfunctional side effects'

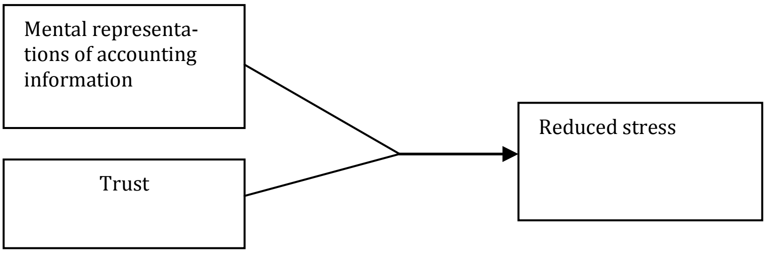


Figure 6.6 *Interaction effect of management accounting information and trust*

The difference between these models is that trust is dependent on and independent of accounting information (which is a conflict between the models identified in section 6.2.1.) However, essentially they have a similar basic assumption related to dysfunctional side effects of formal performance evaluation situations, although they are more or less explicitly addressed.

Studies on Map A, which lean towards cognitive psychology, are not based on a pure behaviorism orientation, where certain stimuli are predicted to lead to a certain reflexive response and behavior is assumed to be an automatic, pre-programmed response to stimuli (Birnberg et al., 2007, pp. 113–114). There is a higher degree of voluntarism involved in explanations on Map A. Individuals' cognitions and mental representations and interpretations have an important role to play. Individuals will experience and form attitudes towards organizational aspects in a variety of ways, which make this behavior less deterministic. The individual is seen as more complex and might have different motives and goals. Informal aspects such as norms, values, attitudes, perceptions and personal history may reflect and affect how individuals make mental representations of aspects in the organization and thus how they behave. This line of thinking started with the Hawthorn studies (see Roethlisberger & Dickson, 1939, in Burrell & Morgan, 1979). These researchers were able to emphasize individual attitudes towards the work situation. According to Burrell and Morgan (1979), the advance over earlier thinking, reflected in the Hawthorn studies, was an elucidation and demonstration of the importance of the meaning that individual workers attached to their work (Ibid, p. 134).

A fundamental premise in the studies on Map A, in line with the reasoning in the Hawthorn studies, is thus that individuals' perceptions, attitudes and experiences are of importance in the work environment. This implies that how individuals represent management accounting cognitively and attach meaning to management accounting are of important to explain.

6.4.2 Assumptions about organizations

One way of analyzing the basic problem and premises on Map A is to perceive the object of study in this area as 'subsystems in conflict' (cf. Burrell & Morgan, 1979). The starting point in the area is based on the central premise that the human subsystem may be in conflict, or at least have different interests, than the managerial subsystem (Ibid). For example, Hopwood (1972) and Otley (1978) conclude that formal performance evaluation leads to stress and lower levels of trust and thus fosters dysfunctional behavior. Overall, studies assume that organizations are not functional if formal parts of them, for example authority and control structures, give rise to dysfunctional side effects. In order to reach a balance between the subparts of the organization the human subpart needs to be taken into account.

By perceiving the central problem as 'subsystems in conflict' we have a tool for analyzing or deconstructing the basic assumptions investigated in the area. Based on the reasoning that informal and formal aspects of the organization need to be integrated, in the study of organizations, we can deconstruct the two main parts of the organization.

First, the formal part of the organization represents the formal structural properties of the managerial subsystem, i.e. the part that exercises control and formal authority. In studies on Map A, terms such as 'formal control' or 'performance evaluation' are used when referring to this subsystem. Second, the other subsystem, which often is assumed to be in conflict with the formal managerial subsystem, is the human subsystem, namely how humans interpret and form attitudes towards formal performance evaluation and control. In studies on Map A, the human subsystem plays an important role, which implies that informal aspects of the organization are important, but often in conflict with the formal part.

One study that shows this problem clearly is Ross (1994). He starts from the basic premise that the human and managerial systems are in conflict. Being formally evaluated by a superior always implies a certain level of stress, because your self-esteem is potentially threatened. Stress leads to job-related tension, which is assumed to have dysfunctional effects on the organization as a whole. This reasoning has been explained by role theory, where role ambiguity or role conflict is derived from the assumption that organizational goals can be in conflict with individuals' goals. Consequently, when subordinates are in a performance evaluation situation, they can never be sure of the outcome and thus they will be stressed. This is the fundamental premise of the erliest studies in the area (e.g. Otley, 1978).

However, taking these fundamental premises one step further, the unfavorable effects of the formal system can, according to Ross (1994), be reduced (see the second 'raw model' in Figure 6.6) by taking into account the informal human system. This implies that how individuals experience and form mental representations of their surroundings, including accounting information, accounting processes and relationships with others, are important factors in the organization. Ross (1994) emphasizes these informal aspects. Arguing that trust between superiors and subordinates will reduce such unfavorable effects of the formal system. This holds when accounting information is used in performance evaluation situations, because accounting information is perceived to be objective, fair and controllable by the subordinate. A contribution by Ross (1994) is thus that he emphasizes the way individuals feel towards and experience the formal evaluation process, accounting information and superiors.

A progression in the area related to basic assumptions is thus visible. Earlier studies in the area, starting with Hopwood (1972) and Otley (1978), assumed that the formal aspects of the organization had dysfunctional effects. Later, starting with Ross (1994), this basic assumption was broadened to include the informal aspects of accounting information and processes, which were assumed to have favorable effects on individuals' attitudes and behaviors (e.g. Lau & Sholihin, 2004; Hartmann & Slapničar, 2009).

Most studies after Ross (1994) investigate trust and the informal aspects of formal control structures to explain the importance of human cognition and of the interpretation of the formal part of the organization.

However, different degrees of attributing importance to the informal part of the organization are visible in studies on Map A. This variation is shown in two extreme cases. Further, this different emphasis has consequences for how studies perceive and treat trust in their models. On one hand, we have studies that address the formal part of the system and its effect on trust. These studies never dig deeper into why and how trust is created and developed. They only state and conclude that formal factors in the organization are related to trust (e.g. Otley, 1978; Gibbs et al., 2004), but never discuss how and why trust develops. On the other hand, other studies aim to penetrate the informal parts of the organization (e.g. Johansson & Baldvinsdottir, 2003) or discuss the relationship between the formal and informal parts (e.g. Ross, 1994; Hartmann & Slapničar, 2009). These latter studies come closer to understanding trust in relation to formal and informal aspects in the organization. They try to answer how and why trust is developed in relation to both formal and informal dimensions and to open up the covert side of the organization. They rather turn the formal parts inside out and therefore are able to explore the informal, hidden but important parts of the organization, which seems to matter most in explaining and understanding trust in relation to management accounting.

6.4.3 Assumptions about human behavior, motivation and information

Generally, two basic assumptions related to information and human cognition are made in this area that have consequences for the assumptions on human motivation: bounded rationality and cognitive inconsistency. Bounded rationality causes individuals to be in a form of imbalance or tension, not perfectly satisfied, which 'motivates' humans (psychologically) to take action to overcome this imbalance, i.e. people strive for balance and aim at satisfying their needs and intentions. The main assumption made in cognitive theories in studies on Map A is thus that people strive for *cognitive consistency*, i.e. a mental state of 'internal (single-person) equilibrium' (Covaleski et al., 2007, p. 601). However, often people are in a state of mental disequilibrium. Individual equilibrium means that individuals' mental states fit together harmoniously and do not conflict. Individual disequilibrium instead means that individuals' mental states are in conflict, which causes individuals to experience an unpleasant psychological state of tension. This tension causes stress and dysfunctional behavior.

The assumption of cognitive consistency is related to that of bounded rational individuals (Simon, 1957), which cannot overview all possible alternatives when deciding or making judgments. Such individuals instead select the first alternative found that gives them a benefit or is useful in some respect. However, the chosen alternative is not an optimal tradeoff between the actual costs and benefits of searching and processing information; it is only an acceptable tradeoff. The alternative does not automatically maximize an individual's expected utility. Consequently, individuals know what is possible to reach but they also know what they actually prefer. This gap between what they in reality can achieve and what they actually prefer causes a form of mental tension, i.e. cognitive inconsistency. This implies, in short, that bounded rationality can cause individuals to experience cognitive consistency (Covaleski et al., 2007, pp. 601–602).

Mental inconsistency thus functions as a basic driving force that motivates individuals to take action. They strive to be in balance. Consequently, when individuals experience tension due to a need or intention that has not been satisfied, they activate the goal of reducing the tension. This is consistent with the hedonism and homeostasis assumption in psychological motivational theories (Birnberg et al., 2007). These assumptions mean that people's primary goals in life are to maximize pleasure and minimize pain, and thus that they are motivated to return to a state of internal equilibrium when this is disturbed. Consequently, unsatisfied needs and intensions are assumed to be motivating (because they create unpleasant states of tension, which people try to overcome). Intrinsic rewards, such as the achievement of a budgetary goal or target, seem therefore more important here than extrinsic rewards (e.g. monetary pay) as a motivational factor. However, these theories do not exclude extrinsic rewards as a motivational factor but rather pay more attention to intrinsic rewards. After all, they assume that individuals can be motivated, but foremost by intrinsic, psychological rewards.

If relating the psychological model of humans and psychological motivation to the assumption of organizational subsystems in conflict, we can conclude that humans need to be motivated by psychological rewards in order for the organization to be functional. In this respect, perceptions and attitudes towards management accounting information and processes are important.

Some studies on Map A incorporate agency theoretical reasoning in their discussion (see Hartmann & Slapničar, 2009; Gibbs et al., 2004). AT focuses on how to align principals and agents' divergent interests using different contracts or control mechanisms. However, owing to bounded rationality, contracts and control mechanisms are always incomplete, which leaves parties with a certain level of uncertainty.

Regarding motivation, the AT of motivation actually functions in a similar way to psychological motivational theory. However, here the premise is that people strive to satisfy their own wealth (which can be seen as an unfulfilled need). However, due to bounded rationality, people 'do not have the wits to maximize' (Simon, 1957) and instead aim at satisfying their needs, which is similar to what cognitive psychology assumes. Consequently, owing to the assumption of bounded rationality and incomplete contracting, there is a need to complement the remaining uncertainty left by the incomplete contract by other means. In this respect, trust has a role to play. From the perspective of the principal, agents' trust in the principal is a complement for a less perfect contract. Trust is thus the missing part of the imperfect contract, a part that cannot be controlled for by means of contracting. It is the part that is left to 'an alternatively uncertainty reduction mechanism' (Tomkins, 2001).

Trust can thus be conceptualized as a form of intrinsic motivation that complements extrinsic motivation, accounted for by the (incomplete) contract, which because of incompleteness never can motivate the agent perfectly. Motivation here implies that agents need to be motivated in order to not behave against the principals' well being.

When studies on Map A draw on the AT of motivation, they thus assume a more relaxed model of humans than in the pure economic model because of bounded rationality and incomplete contracting. A relaxed version of the agent/principal theory on Map A thus includes both extrinsic and intrinsic motivation.

In comparison, the bounded rational economic individual is similar to a hedonistic or homeostatic individual in cognitive psychology in that humans always strive to satisfy unfulfilled needs, to maximize pleasure and to minimize pain (Birnberg et al., 2007). Further, cognitive psychology does not exclude extrinsic rewards, but limits their explanation to psychological rewards. However, if a more relaxed version of agent/principal reasoning were allowed, there would be the potential to integrate both models to include intrinsic and extrinsic rewards in the same model (cf. Covaleski et al., 2007; Merchant et al., 2003).

6.4.4 Divergent interests

Studies on Map A assume that individuals strive to satisfy needs through extrinsic and/or intrinsic psychological rewards. Inherent in motivational theories in general is the assumption of divergent interests, which is why individuals need to be motivated. In both AT and cognitive psychology, the assumption of divergent interests is visible. Representatives of organizations (i.e. principals, employers or superiors) and individuals (agents, employees or subordinates) often have different goals and interests. In AT, these aspects are fundamental to the theory. The problem is how to align principals and agents' divergent interests. In psychological theory, these aspects are also of importance, i.e. how to make the goal of the organization the goal of the individual.

Consequently, cognitive psychology and agency theoretical reasoning have similar ways of portraying individuals and organizations and they both believe the problem of divergent interests can be handled with motivation.

6.4.5 Level of volition in motivation

Another dimension of motivation can be seen in the literature, on Map A. The way motivation is perceived by different studies is colored by the level of voluntarism implied in the model of humans. In studies on Map A, two studies highlight the extreme cases. The most actively oriented individual is focused on what the principal actively can do to 'help' the agent, i.e. how to actively motivate the agent to perform (Johansson & Baldvinsdottir, 2003).[25] In the other extreme case, we have a more predetermined human. He or she is portrayed as self-interested, opportunistic and driven by economic extrinsic motivation. However, and as argued earlier, because of bounded rationality, this individual also needs to be motivated by other means (intrinsic rewards), which makes him or her more complex than a strictly rational self-interested economic individual. The focus is on how to motivate the agent with an ex-ante contract (incomplete) and with an ex-post contract in the form of trust (cf. Gibbs et al., 2004). The former study models an active actor that has the will and power to influence others, i.e. by his or her own means. In Baldvinsdottir's (2001) study, the self-interested utility seeking individual, as referred to in the agency model, is substituted for a more 'humanistic kind of human' (p. 135). Baldvinsdottir (2001) also refers to Argyris 'self-actualizing man'. This individual focuses on other rewards than external ones. Instead, internal rewards such as opportunities for personal growth, community and self-fulfillment are important (Baldvinsdottir, 2001, p. 154). Therefore, the purposeful and intentional use of management accounting becomes more important than the

[25] This study does not use the terms principal and agent and does not lean towards agency theoretical reasoning, but these terms are used to emphasize the differences and similarities by using a common terminology.

formal design of the control system, i.e. the 'contract' reffered to in Gibbs et al.'s study (related to trust).

Even though these two extremes have different perspectives on human motivation and behavior, both try to overcome tension, dysfunctional effects and potential opportunism by motivational effort. Generally, these theories assume different interests and they both believe that it is possible to align parties' divergent interests. In addition, the most important similarity here is that both emphasize and see a role for trust in motivating employees (cf. Gibbs et al., 2004; Johansson & Baldvinsdottir, 2003).

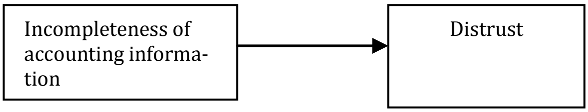
6.4.6 Examples of models and variables related to assumptions

There are two instructive examples of studies that model factors directly derived from the assumption of individuals in cognitive inconsistency. These models are derived from role theory and AT. Except for bounded rationality, role theory assumes that individuals in the organization have conflicting goals (divergent interests). Accounting targets will never cover all the aspects an individual engages in, implying that individuals must choose between different goals, which causes confusion. Consequently, mental inconsistency arises, which leads to job-related tension (Ross, 1994) or distrust (Otley, 1978). The reasoning and assumptions behind role theory can be seen as a type of behavioral counterpart to agency reasoning (Hartmann, 2000).

Gibbs et al.'s (2004) study, by contrast, can be seen as a representative of a more agency theoretical orientation. Like Otley (1978), they state that organizational and individual goals may be in conflict. Both Gibbs et al. and Otley imply, due to bounded rationality and goal divergence, that accounting performance measures and the rewards connected to them are inevitably imperfect. Accounting measures can thus be seen as the tangible part of an intangible contract between the principal and agent, i.e. a contract specified in single measures.

This 'incompleteness' thus causes distrust, according to Otley (1978). However, according to Gibbs et al. (2004), it can be complemented with trust and subjective judgments. In such a case, the employee will be more satisfied with the contract and thus perform according to the will of the principal. Figure 6.7 shows both models.

1) Otley (1978)



2) Gibbs et al. (2004) *'Accounting information assumed to be incomplete'*

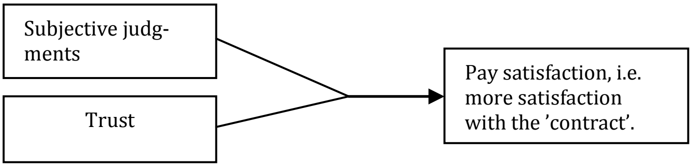


Figure 6.7 *Direct effect (Otley, 1978) and interaction effect (Gibbs et al., 2004)*

Thus, these studies have similar basic assumptions in their models. In Otley's model, trust is dependent on incompleteness, while trust is implicitly assumed to be independent of the same factor in Gibbs et al.'s study (see section 6.2.1 for a discussion of this model conflict). However, these studies empirically operationalize and derive their variables directly from the assumption of bounded rationality, and here utilize the assumption of a basic goal conflict between superiors and subordinates (as assumed in role theory and AT). Other studies on Map A derive their variables and predictions from other theories within cognitive psychology (but implicitly assume cognitive inconsistency and bounded rationality), such as goal setting theory (Locke & Latham, 2002) and procedural justice theory (Lind & Tyler, 1988).

In conclusion, some studies operationalize the assumptions clearly in their chosen variables (e.g. Otley, 1978), while others let them stay as untested assumptions (e.g. Ross, 1994).

6.4.7 Conclusion – Theory and Assumptions Map A

Three models of man are found in studies on Map A, even though many studies combine them. We have an economic individual who strives for extrinsic rewards, a 'homeostatic' psychological individual who strives for cognitive balance and a model of man that includes others' wealth in individual judgments and decisions, i.e. a humanistic kind of individual.

Related to this are different levels of volition and different emphases on formal or informal aspects. A 'psychological individual' is acting and interpreting in a more informal sphere and is motivated by more informal, intangible and intrinsic rewards. Here, the use of management accounting information or the cognitive experiences and mental representations of management accounting is of high importance. By contrast, an economic individual is driven by economic compensation in relation to more formal factors in his or her environment, such as the objective contract between the principal and agent, which manifests itself in management accounting goals and targets and their subsequent economic rewards.

The common denominator in these theories is that even though people may be motivated in different ways, they at least *can* be motivated and thus divergent interests can be aligned. In the end, human goals or intentions can be aligned with the organization, even if goals and interests differ. These models aim to motivate individuals at work with every 'tip and trick' the organization can come up with in order to align divergent interests and thus create unity and balance. One common denominator here that seems to be of importance in order to reduce conflicts, dysfunctions and opportunistic behavior is to take into consideration the informal aspects of management accounting. These include the perceptions and cognitive interpretations of accounting information, accounting processes and how actors come to utilize accounting information in order to create trust (in the superior, employee, manager or accounting figures). This implies that the informal side of control (i.e. soft control) plays an important role here. However, the main difference is how far studies go in explaining how and why trustworthiness and trust is created.

In sum, all studies assume bounded rationality, some form of imbalance between what individuals have and what they want, divergent interests and different goals between the organization and the individual. The difference between studies concerns how and by what means individuals are motivated. However, they all assume that humans can be motivated in the organization and thus that different interests can be aligned. In this respect, they focus on the formal and informal parts of the organization and put more or less enphases on explaining and understanding how and why trustworthiness and trust is developed and created in relation to management accounting.

6.5 Map B - What is the meaning of variables and what is the level of analysis?

Table 6.5 lists all the articles discussed in this chapter.

Table 6.5 *Citations, Map B*

Map B			
1 Seal & Vincent-Jones, 1997 2 Seal et al., 1999 3 Groot & Merchant, 2000 4 Langfield-Smith & Smith, 2003 5 Dekker, 2004	6 Håkansson & Lind, 2004 7 Coletti et al., 2005 8 Mouritsen & Thrane, 2006 9 Cuganesan, 2006 10 Emsley & Kidon, 2007	11 Free, 2007 12 Free, 2008 13 van der Meer-Kooistra & Scapens, 2008 14 Vélez et al., 2008 15 Langfield-Smith, 2008	16 Neumann, 2010 17 Cäker & Siverbo, 2011 18 Johansson & Siverbo, 2011 19 Jeacle & Carter, 2011

6.5.1 Management accounting

The following management accounting terms are found in studies on Map B: 'control', 'output control', 'result control', 'formal governance', 'OBA' and 'management accounting' (see also Map B in Appendix C). Other factors such as 'social control' and 'behavioral control' are not treated as management accounting variables. Generally, these factors refer to the theory-based construct 'control' and imply two types of control, where control is exercised without the interference of management accounting. Since this study is interested in the meaning of and relationship between management accounting and trust, the aim is not to disentangle the meaning of 'control'. This study asks 'what is the meaning of management accounting?' Consequently, when a study discusses 'control and trust', the specific part of control, usually result or output control, which refers to management accounting, is illuminated and identified as the object of analysis, i.e. identified as the management accounting variable to be disentangled. This implies that social and behavioral control are omitted from the analysis. These management accounting terms refer to both practice-based and theory-based variables. In this section, the features of these factors are analyzed in order to disentangle the meaning of management accounting.

Generally, studies investigate different control or governance solutions between organizations or analyze different interfirm accounting techniques and agreements between organizations. When it comes to the specific role and meaning of management accounting, the following general observations have been made.

A variety of management accounting aspects are captured in studies on Map B. This implies that a lot of management accounting factors related to different management accounting activities are described and elaborated on in studies on Map B. These include performance measures and targets, performance evaluations, monitoring performance achievements between organizations and different OBA techniques and accounting agreements between organizations. Further, a variety of different theoretical features are drawn on in these studies. These features can be classified into different categories. Thus, the features that factors such as 'output control' and 'OBA' possess differ substantially between and within studies, as the following analysis shows.

Perception of management accounting information

The first group of variables addresses the features of accounting information. Generally, accounting information is used when the outputs of operations and achievements between two companies in an interorganizational setting are measured and evaluated. Accounting information is also used when organizations want to make their financial and commercial information visible to each other in close partnerships (Seal et al., 1999), strategic alliances (Langfield-Smith, 2008; Dekker, 2004) and joint venture agreements (Groot & Merchant, 2000; Emsley & Kidon, 2007; Cäker & Siverbo, 2011) and outsourcing (van der Meer-Kooistra & Scapens, 2008; Johansson & Siverbo, 2011). The features of accounting information are thus of importance between organizations in different interfirm accounting situations. Those addressed in these studies include objective, clear, specific, meaningful, transparent, visible, open, shared, relevant and understandable. Table 6.6 specifies all these features of accounting information.

Table 6.6 Features of the perception of accounting information, Map B

Level of analysis	Perception of MA information (targets/measures/result/output reports)
Dyad	-Objective (Vélez et al., 2008) -Observable/visible/ transparent (Dekker, 2004; Coletti et al., 2005; Vélez et al., 2008; Neumann, 2010) -Meaningful (Emsley & Kidon, 2007) -Understandable (Seal et al., 1999) -Shared (van der Meer-Kooistra & Scapens, 2008) -Relevant (Groot & Merchant, 2000; Cuganesan et al., 2006; Cäker & Siverbo, 2011) -Accessable (Johansson & Siverbo, 2011)

These features are those characteristics of accounting information utilized in strategic partnerships, joint ventures, collaborations, customer/supplier relationships and outsourced operations. Variations in these features are thus observable in the dyad. This means that the dyad is the main level of analysis. Although organizations and relationships between organizations consist of individuals and relationships between individuals, in these studies the theoretical interest lies at an aggregated level. Individuals are aggregated to a collective level, i.e. the dyadic level (where individual variation is of less concern). Thus, the perception of management accounting information is assumed to vary between dyads, even though it is individuals that perceive or experience accounting information in certain ways. Individuals are assumed to have homogeneous perceptions with reference to the features of interest (see Klein & Kozlowski, 2000).

However, the same types of features are also defined and drawn on at the individual level of analysis (in studies on Map A). Further, there are no reasons to distinguish between this variable group and its adherent features at different levels of analysis. Accounting information, in performance evaluations or different interfirm accounting arrangements, whether the evaluation or general arrangement takes place inside the organization (between a superior and a subordinate) or between two organizations in a dyadic setting, affects individuals even if they are treated as having heterogeneous or homogeneous perceptions.

Further, how accounting information is perceived by individuals or by (individuals in) dyads is an essential determinant when it comes to trust relationships both between superiors and subordinates and among organizations in interorganizational settings.

For example, Emsley and Kidon (2007) state that if the information used in performance evaluation situations between partners in a joint venture is perceived as meaningful by both partners, it leads to trust between them. Emsley and Kidon specify this further by stating that different types of information are important for different types of trust. This is also assumed to vary between hierarchical levels in the company. However, the overall message is that meaningful information is essential for trust development. Seal et al. (1999) draw on a similar feature. They state that whether or not information is understandable by both partners in a partnership is crucial for trust to develop or not. They write:

> Thus the contribution of management accounting to supply chain management may depend on its ability to develop costing and performance measurement technologies that can be understood and respected [by different people involved in the strategic partnership]. (Seal et al., 1999, p. 321)

Consequently, whether or not information is depicted in an understandable way, where both partners in a dyad perceive it as understandable, becomes an important determinant of trust.

Further, Langfield-Smith and Smith (2003) follow a relationship between a company and its outsourced operations for a period of time. They conclude that in order to manage a relationship, accounting information must be specific and clear rather than non-specific and too broad. These important features of information are shown to be compatible with a deep trust relation. In addition, Dekker (2004) and van der Meer-Kooistra and Scapens (2008) investigate different features related to management accounting. For example, Dekker (2004) states that transparent and open accounting information is needed in order to secure a good working relationship between two companies. He writes:

> The partners believe mutual transparency of […] results to be an important basis of their trusting relationships. The formal controls in particular goal setting, performance measurement and information sharing, contribute to this transparency. (Dekker, 2004, p. 45)

In line with Dekker's (2004) and van der Meer-Kooistra and Scapens' (2008) reasoning is Coletti et al.'s (2005) study, which emphasizes that an important characteristic of accounting information is its ability to be depicted as visible or transparent. This feature is important because transparent information leads to favorable behaviors and favorable mental states between collaborators. According to Coletti et al. (2005), that is so because when collaborators can observe (through open and transparent information) each other's performances, collaborators attribute performance efforts to their partners' trustworthiness. Finally, accounting information as part of a control structure can also be characterized as having different levels of relevance due to the trust level parties already have for each other (Groot & Merchant, 2000; Cäker & Siverbo, 2011).

These are all examples of the features of accounting information found in studies on Map B. One overall common denominator for all these variables is the level of relevance of accounting information. This overall feature refers to its implicit ability to be functional in a certain aspect. If the information is perceived as relevant by dyadic partners, it will have considerable impact on the relationship and subsequently trust development. One prominent explanation is that highly relevant information gives clues about partners' trustworthiness (cf. Coletti et al. 2005; Dekker, 2004; Langfield-Smith & Smith, 2003). Further, information clues are needed to assess a partner's trustworthiness. The other way around is also visible, where trust affects the relevance of accounting information (Groot & Merchant, 2000; Cäker & Siverbo, 2011).

Compared with Map A, this is the same overall common denominator but has a slightly different meaning here. The feature refers to how two dyadic partners perceive accounting information when they are in a collaborative relationship. In this relationship, accounting information and its high degree of relevance affects both partners' perception' of each other and thus trust in each other. On Map A, this feature is instead conceptualized as affecting one party, i.e. trust in a superior. This means that this group of variables is assumed to cause a variation both between individuals and between dyads, implying that the effect of this variable is a certain degree of trust in a trustee, but also trust between parties.

Features of accounting information are thus, on one hand, conceptualized as affecting the individual and his or her attitudes towards another individual, i.e. a unilateral effect. He or she is therefore treated as isolated from relationships with others. On the other hand, the features of accounting information affect two parties and how both form a mental attitude towards each other, i.e. a bilateral relationship effect.

Further, depending on the level of analysis, different explanations are at hand. Thus, the underlying mechanism(s) that drives and explain the features of accounting information differ between maps, i.e. when individuals and dyads are the object of explanation. For example, Lau and Sholihin (2005) (Map A) state that accounting information is important for individuals because it enhances the direction and clarity of tasks to be performed, consequently leading subordinates to experience trust in their superiors.[26] Seal et al. (1999), by contrast, theorize that two parties need to perceive the information in an understandable way in order to improve their relationship. When organizations cooperate closely and want to develop the relationship further, they need to learn about each other's financial and commercial objectives. In such cases, it is important that both parties can understand each other's information. The difference is thus that both partners are taken into account when investigating interorganizational relationships. When it comes to Map A, the focus is only on the individual's mental state, perceptions and attitudes.

Perception of management accounting processes

This variable category refers to the perceptions of management accounting processes and systems as such. It concerns how organizations in dyadic relations perceive the system and its processes. In studies on Map B, the management accounting process has one important feature related to 'participativeness'. This feature is important for dyads, because it affects how relationships between them are managed, function and develop. Two companies that work together are dependent on their mutual acceptance of the management accounting process. What is important in this situation is that both partners perceive that they have the possibility to participate in the process (Langfield-Smith & Smith, 2003; Langfield-Smith, 2008; Vélez et al., 2008). The overall feature of the management accounting process is thus the level of acceptance of it.

In sum, this group of variables refers to how organizations consider the whole management accounting process in different interorganizational

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[26] They use arguments from goal setting theory (see Locke & Latham, 1991). According to Locke and Latham (1991), the presence of specific and well-defined goals is important for individuals because of the characteristic of goals as a directing mechanism. Lau and Sholihin cite Locke and Latham (1991) and write that '*[...] goals orient the individual toward goal-relevant activities and material and away from goal-irrelevant ones*'. Performance evaluation, including specific goals and targets, thus functions as a 'mental guide' that directs an individual's mind and mental state. Accordingly, individuals' mental states strive towards a form of equilibrium and the system guides individuals in this mental process. The main explicit assumption in these studies is that people strive for cognitive consistency, i.e. a mental state of 'internal (single-person) equilibrium' (Covaleski et al. 2007, p. 601). However, often people are in a state of mental disequilibrium. Individual equilibrium means that individuals' mental states fit together harmoniously and do not conflict. Individual disequilibrium instead means that individuals' mental states are in conflict, which causes individuals to experience an unpleasant psychological state of tension. This tension causes stress and leads to dysfunctional behavior.

settings. A crucial aspect in the close cooperation between firms is thus participative management accounting processes. Further, the overall character of this category is the level of acceptability and legitimacy.

An acceptable process is a feature also found in studies on Map A. While studies on Map A mostly are interested in the effects of the management accounting processes on individuals; minds and mental states, Map B seeks to find the effects of this feature in relationships between two or more organizations. In studies on Map A, individuals' own acceptance for the process is important for trust. While in studies on Map B, both parties in a dyad are taken into consideration in the analysis. This conceptualization implies that both parties perceive the management accounting process as acceptable and legitimate in order to develop trust in each other.

The explanations behind these factors are inconclusive. Even though studies on Map A and Map B draw on similar features, the explanations differ between them. In studies on Map A, the explanations are rather straightforward and point out the importance of motivational factors and explicit or implicit rewards.[27] For example, Lau and Buckland (2001) argue that when a subordinate feels that he or she can influence the decision making process, which will have consequences for his or her final rewards, he or she will be more eager to accept the process. Further, when he or she is accepting the process, he or she will develop rational trust in the manager.

Studies on Map B instead argue that in a participatory and accepted process, parties develop mutual trust in each other depending on the social arena that gives possibilities to interact.[28] Interaction is thus important for trust to develop from a relational perspective, even though interaction can be viewed as a motivational factor on its own, because people might value and are motivated by work interaction for its own sake. In such cases, participation and highly acceptable and legitimate accounting processes give a platform for social interaction, which is important for bilateral trust. These two explanations are not contradictory; they have only different perspectives on a similar phenomenon and thus add to our understanding of management accounting processes and trust.

Use of management accounting systems and information

The last group of variables identified in studies on Map B conceptualizes management accounting as a system that is intentionally used by actors. For example, Free (2007, 2008) states that the reflexive and manipulative

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[27] A cognitive motivational explanation.

[28] A social explanation.

use of management accounting information does not lead to trust between parties in an industry. He writes:

> The interviews provide evidence suggesting that certain forms of calculation [OBA] […] *can be deployed in a way* that is incompatible with the constitution of trust-based relations. (Free, 2008, p. 650, emphasis added)

And,

> The expansive use of [OBA] to engender competition […] and regular surveillance did little to promote trust between organizational actors […]. (Free, 2008, p. 650)

Johansson and Siverbo (2011) discuss how the too intense and too excessive use of management accounting (result control) can undermine trust, which is in accordance with Free's argument. Related to the use of management accounting, the explanation here focuses on the 'crowding out effect'. When suppliers are exposed to excessive control, they might lose their intrinsic motivation and start to change their behavior, i.e. they shift their behavior to simply fulfilling formal agreements, which are likely to be incomplete. As a result, trust is reduced. On the contrary, Håkansson and Lind (2004) argue that the flexible and systematic use of accounting information actually enhances interorganizational relationships.

Consequently, the management accounting system and information produced by it can be used reflexively to, for example, exercise too much control, monitor or threaten partners or develop the relationship. This in turn may lead to unfavorable or favorable relationships between actors, i.e. low or high levels of trust.

The common denominator of this variable group is thus how people handle and use the system and its information in particular ways, which have specific consequences for relationships between organizations. If we characterize this category with one overall feature, 'favorable use' grasps the common meaning. The level of favorability related to the use of management accounting systems and its information affects the association with trust. A low level of favorability leads to low levels of trust and vice versa (Seal & Vincent-Jones, 1997; Håkansson & Lind, 2004; Mouritsen & Thrane, 2006; Free, 2007, 2008; Johansson & Siverbo, 2011; Jeacle & Carter, 2011).

In sum, the intentional use of the management accounting system is a distinct group of management accounting aspects that is identified in studies on Map B. This group of variables is distinct from the perceptions of management accounting information and from management accounting processes per se, because it deals with how human actors make use of such systems and the information produced by them in an intentional way.

In sum

If summarizing the meaning of management accounting on Map B, we have three distinct classes or groups of management accounting aspects. The first addresses the perceptions of management accounting information and its overall feature is the level of relevance. The second deals with management accounting processes and its overall feature is the level of acceptability, while the third refers to the use of the management accounting system and the adherent overall feature of the level of favorability. The same features are also found in studies on Map A, but here, on Map B, these features affect dyads or industries rather than individuals per se.

What we can conclude is that management accounting features have been conceptualized as affecting one or two parts in a relationship. This also has consequences for how trust is treated (see next section). Map B shows us that the focus is on interaction and relationships compared with Map A, where the focus is rather on how one party in a relationship assesses trustworthiness and comes to trust another person.

6.5.2 Trust

The following trust terms are found in studies on Map B: goodwill trust, capability trust, competence trust, thick trust, system trust and trustworthiness. What do these terms refer to and what is the meaning of trust in studies on Map B? 'Capability' and 'competence' trust are derived from a rational process, where knowledge or information is used to assess the inherent characteristics of the trusted party. For example, 'competence' trust '*involves ensuring that partners have the ability to carry out tasks/deliver on their promises*' (Seal et al., 1999, p. 306). Further, we find a similar meaning in Langfield-Smith and Smith's (2003) study: '*[competence trust] focuses on perceptions of ability and expertise, and is the expectation of technically competent role performance*' (p. 285). Dekker's (2004) capability trust refers to '*expectations about another's competencies to perform a task satisfactory*' (p. 33), which is similar to competence trust in the previous studies. Capability and competence trust focus on the perceived performance ability, and trustworthiness is assessed related to aspects of ability and competence. These different trust types are of rational and cognitive nature, and are therefore categorized into the rational trust category.

Compared with capability and competence trust, goodwill trust is a different type of trust. It is a trust form based on emotions or affections between two committed partners. Goodwill trust *'allows discretion beyond contractual and competence trust implying a more open commitment'* (Seal et al., 1999, p. 306). It can hence be categorized into the emotional trust category. Neumann (2010) uses the term 'thick' trust when discussing emotional trust. She states that emotional trust (or thick trust) develops when partners have positive expectations about each other's abilities and benevolence. Vélez et al. (2008) state that goodwill trust implies an expectation of open commitment to each other. The factor 'system trust' is also visible in studies on Map B (Seal & Vincent-Jones, 1997; Mouritsen & Thrane, 2006; Jeacle & Carter, 2011). This factor concerns trust and confidence in the abstract principle and the functioning of these principles, and these abstract principles refers to management accounting.

Trust and Levels of analysis

In the majority of studies on Map B, trust is analyzed at the dyadic level of analysis, i.e. relationships between two organizations. This implies that trust is treated as a bilateral concept; it emerges and develops in a relationship between two (committed) parties. This means that trust is not only a rational assessment of another person's trustworthiness (as in rational unilateral trust) in the eyes of the trustor, it is something more. It emerges and develops over time through repeated interactions between a trustor and a trustee (cf. Dekker, 2004; Neumann, 2010). Further, through this dynamic character, trustworthiness is repeatedly assured, which happens when emotions and affections enter into relationships and strengthen the positive bonds between people.

While the majority of studies investigate the dyad, Free (2008) investigates the whole industry. Does a shift in the level of analysis imply a shift in trust meaning? Seal et al. (1999) understand the effect of OBA on interorganizational trust (a rational type of interorganizational trust) between a customer and a supplier (in a dyad), while Free (2008) instead aims at explaining the effect of OBA on rational trust in the whole industry. This means that trust is analyzed at the industry level and not at the dyadic level of analysis. Further, trust is assumed to be homogeneous in this specific industry (cf. Klein & Kozlowski, 2000). Consequently, according to Free (2008), trust means trust between different organizational actors in the whole industry and not just between two actors in a dyad. However, Free (2008) investigates rational trust between one party (a leading retailer) and one of its suppliers. Trust is aggregated to represent the industry as a whole. This implies that Free's trust is a kind of dyadic trust used as a proxy for industry trust. Thus, his trust meaning and trust content refer to similar features as the dyadic type of rational trust in Seal et al.'s (1999) study.[29] Consequently, the meaning of trust is similar in these two studies.

When it comes to trust perceptions, individuals always perceive and form a mental state of trust and trustworthiness, but individuals in an industry, dyad or organization (i.e. any form of collective) may share this mental state and perception. Zaheer et al. (1998a) state that trust has its origin in individuals, but that individuals in organizations may share a trust perception, which becomes the level of (shared) organizational trust:

> Trust has its basis in individuals, although individuals in an organization may share [a trust orientation]. (Zaheer et al., 1998a, p. 143)

Consequently, the theoretical features are the same at different levels of analysis if the same trust type is drawn on – even if analyzed at different levels of analysis (see also Klein & Kozlowski, 2000; Chan, 1998).[30] When a rational type of trust is analyzed at the individual, organizational or dyadic level of analysis, trust has a similar meaning. As Vélez et al. (2008) put it, in line with Zaheer et al. (1998a):

> The origin of trust, the trustor, is of course human, but may be either an individual or a group; the object of trust, the trustee, may be things as well as people and their system. (Vélez et al., 2008, p. 979)

In sum, two general types of trust are visible when analyzing the trust meaning on Map B: a rational and an emotional trust type. Compared with Map A, an emotional trust type is visible here. Further, trust also implies a bilateral treatment of trust where trust is a matter of a relationship. Trust emerges and develops from repeated interactions over time when trustworthiness has had sufficient time to be assured. Further, at the same time, emotions and affections have started to enter into the relationship. This is the main difference on Map B. This difference is related to the aim of not only account for a static perspective of how control, coordination and trust can be achieved, but also showing how control, coordination and trust develop and maintain over time from a more dynamic perspective (which

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[29] However, questions whether Free's proxy is enough or adequate to measure industry trust arise. This is a common criticism, which is referred to as the '*fallacy of the wrong level*' and which means that a researcher attributes an observed relationship to a level other than the actual behavioral or responsive unit (Rousseau, 1985).

[30] In these studies, trust has arguably been treated as a '*shared unit variable/construct*', as Klein and Kozlowski (2000) label a type of variable/construct that has the same meaning across levels of analysis.

will be discussed later). Table 6.7 shows all the management accounting and trust variables on Map B.

Table 6.7 Management accounting and trust variables on Map B

Study number 1-9	MA-meaning	Trust	Rational trust	Emotional Trust	Level of analysis
1 Seal & Vincent-Jones, 1997	'invisible, taken for granted 'use'	System trust	X		Relationships in society and organizations
2 Seal et al., 1999	'understandable' information	Competence & goodwill	X	X	Dyad
3 Groot & Merchant, 2000	'Relevancy' of accounting information	Competence	X		Dyad
4 Langfield-Smith & Smith, 2003	'Participative' process	Goodwill		X	Dyad
5 Dekker, 2004	'Visible', 'transparent' information	Goodwill		X	Dyad
6 Håkansson & Lind, 2004	'Systematic' & 'flexible' use	Unclear			Network
7 Coletti et al., 2005	'Visible' information	Trustworthiness	X		Dyad
8 Mouritsen & Thrane, 2006	'Reflexive use'	System trust	X		Network
9 Cuganesan, 2006	'Relevancy' of information	Competence & goodwill	x	x	Dyad
10 Emsley & Kidon, 2007	'Meaningful' information'	Competence	X		Dyad
11 Free, 2007	'Enabling/coercive' use	Unclear			Dyad

12 Free, 2008	‘Reflexive’ use	Trustworthi-ness	X		Dyad
13 van der Meer-Kooistra & Scapens, 2008	’Shared’ information	Competence & goodwill (good intensions)	x	x	Dyad
14 Vélez et al, 2008	’Visible’ information ‘Objective’ information ‘Participative’ process	Competence & goodwill	X	X	Dyad
15 Langfield-Smith, 2008	‘Participative’ process	Competence & goodwill	X	X	Dyad
16 Neumann, 2010	’Visible’ information	Thick	X	X	Dyad
17 Johansson & Siverbo, 2011	‘Excessive’ use ‘Accessible’ information	Positive behavior intentions	X		Dyad
18 Cäker & Siverbo, 2011	Relevancy of accounting information’	Competence & goodwill	X	X	Dyad
19 Jeacle & Carter, 2011	‘Reflexive’ use	System trust	X		Unclear

6.6 Map B - What are the directions and shapes of the relationships between variables?

In this section, all studies on Map B and their variable models are described. The factors and their specific theoretical features are described and then related to each other, i.e. the 'whats' are combined with the 'hows'. In the panels, each model is described in graphical form. The meaning of the management accounting variable is coded with a number [1], [2] or [3]. Each number refers to one of the three variable groups identified: [1] 'perception of management accounting information', [2] 'perceptions of management accounting processes' and [3] 'use of management accounting'. On Map B, trust refers to rational, emotional or system trust. These trust types are coded with the following abbreviations: Rational Trust: T[R], Emotional Trust: T[E] and System Trust: ST. Further, different types of variable models are distinguished. Finally, potential conflicts between variable models and cross-study differences in the results are identified and discussed.

Study number 1 (Seal & Vincent-Jones, 1997) investigates the relation between accounting and trust in enabling long-term relationships. They find a positive association between accounting use and system trust.

Study and citation	Variable model
B.1 Seal & Vincent Jones, 1997	MA[3] ⟶ ST [3]: 'visible' & 'taken for granted' use of MA

Study number 2 (Seal et al., 1999) investigates the relation between OBA and trust between a customer and its supplier. Seal et al. find a positive direct association between OBA and trust. Understandable accounting information is essential for the development of a trustful relationship. The variable model is thus an additive linear model.

Study and citation	Variable model
B.2 Seal et al., 1999	MA[1] ⟶ T[R] &[E] [1]: 'understandable' MA information

Study number 3 (Groot & Merchant, 2000) tests the relationship between trust and management accounting information (control) in joint ventures. The authors find that high levels of trust are associated with low levels of relevancy of management accounting information. The variable model is thus an additive linear model.

Study and citation	Variable model
B.3 Groot & Merchant, 2000	T[R] - - - - - - - -→ MA[1] [1]: 'relevancy' of MA information

Study number 4 (Langfield-Smith & Smith, 2003), finds that output control defined as a participatory management accounting process leads to goodwill trust between parties in a dyad. The variable model is an additive linear model.

Study and citation	Variable model
B.4 Langfield-Smith & Smith, 2003	MA[2] ———→ T[E] [2]: 'participative' MA process

Study number 5 (Dekker, 2004) models control and trust and shows that trust influence the willingness to share management accounting information, which in turn deepens the trust level. The model is an intervening variable model (a feedback effect).

Study and citation	Variable model
B.5 Dekker, 2004	T[R] ———→ MA[1] ———→ T[E] [1]: 'transparent'/'open' MA information

Study number 6 (Håkansson & Lind, 2004) investigates coordination forms, accounting and interorganizational relationships. A highly systematic and flexible use of accounting information has a highly favorable effect on relationship formations and developments. The model is a direct linear model.

Study and citation	Variable model
B.6 Håkansson & Lind, 2004	MA[3] ⟶ T[R] [3]: 'systematic' & 'flexible' use of MA

Study number 7 (Coletti et al., 2005) shows that visible management accounting information cause parties to observe each other's cooperative efforts and performances, which causes partners to attribute these efforts to each other's inherent trustworthiness, which consequently leads to trust between parties. The performance evaluation system thus stimulates trust between collaborators. The model is a direct linear model.

Study and citation	Variable model
B.7 Coletti et al., 2005	MA[1] ⟶ T[R] [1]: 'visible' MA information

Study number 8 (Mouritsen & Thrane, 2006) shows that the flexible use of accounting creates confidence and trust in the accounting system. The model is a direct linear model.

Study and citation	Variable model
B.8 Mouritsen & Thrane, 2006	MA[3] ⟶ ST [3]: 'reflexive' use of MA

Study number 9 (Cuganesan, 2006) shows that low levels of trust lead to high levels of control. Related to management accounting, this implies that management accounting information, due to low trust levels, has high levels of relevance. Consequently, trust and accounting information are associated negatively.

Study and citation	Variable model
B.9 Cuganesan, 2006	T[R][E] - - - - - -▶ MA[1] [1]: 'relevancy' of MA information

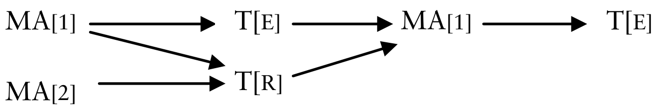
Study number 10 (Emsley & Kidon, 2007) models control and trust. The authors investigate the perception of how meaningful accounting information is for trust developments in a dyad. The system produces information that is meaningful for competence trust at the operational level (but does not produce valuable information for goodwill trust at the executive level).

Study and citation	Variable model
B.10 Emsley & Kidon, 2007	MA[1] ⟶ T[R] [1]: 'meaningful' MA information

In study number 11 (Free, 2007), the enabling/coercive use of different accounting practices has a direct linear association with low/high levels of trust between actors in the supply chain.

Study and citation	Variable model
B.11 Free, 2007	MA[3] ⟶ T[R] [3]: 'enabling/coercive' use

Study number 12 (Vélez et al., 2008) shows that management accounting and trust affect each other during the evolvement of an interorganizational relationship. The model is of a linear intervening type. The features of management accounting information and processes influence both competence and goodwill trust. Later, trust has a feedback effect on management accounting.

Study and citation	Variable model
B.12 Vélez et al., 2008	 [1]: 'objective' & 'visible' MA information [2]: 'participative' MA processes

Study number 13 (Langfield-Smith, 2008) shows that a participative management accounting process, accepted by all parties involved in an alliance leads to both competence and goodwill trust. Consequently, the alliance will eventually work and perform well.

Study and citation	Variable model
B.13 Langfield-Smith, 2008	MA[2] → T[E]&[R] [2]: 'participative' MA process

Study number 14 (van der Meer-Kooistra & Scapens, 2008) shows that shared management accounting information causes parties to trust each other. The model is a direct linear model.

Study and citation	Variable model
B.14 Van der Meer-Kooistra & Scapens, 2008	MA[1] → T[E]&[R] [1]: 'shared' MA information

In study number 15 (Free, 2008), management accounting use (OBA) has a direct linear association with trust between actors in the industry. Thus, trust between actors in an industry is highly dependent on the intentional use of management accounting and its information. The model is of a direct linear type.

Study and citation	Variable model
B.15 Free, 2008	MA[3] → T[R] [3]: 'reflexive' use of MA

Study number 16 (Neumann, 2010) discusses formal governance mechanisms and trust. The author shows that visible and shared management accounting information is associated in a direct linear positive way with trust.

Study and citation	Variable model
B.16 Neumann, 2010	MA[1] → T[E] [1]: 'shared, open & visible' MA information

Study number 17 (Cäker & Siverbo, 2011) shows that high levels of trust leads to low levels of control. This implies that management accounting information, due to high trust levels, have low levels of relevance and that trust has a direct negative linear association with accounting information.

Study and citation	Variable model
B.17 Cäker & Siverbo, 2011	T[R][E] - - - - - -> MA[1] [1]: 'relevancy' of MA information

Study number 18 (Johansson & Siverbo, 2011) shows that excessible use of management accounting is associated with trust. Further, highly accessible accounting information is important for trust.

Study and-citation	Variable model
B.18 Johansson & Siverbo, 2011	MA[1] ——→ T[R] [1]: 'accesability' of MA information MA[3] ——→ T[R] [3]: 'excessible' use

Study number 19 (Jeacle & Carter, 2011) shows that the reflexive use of accounting creates confidence and trust in the accounting system. The model is a direct linear model.

Study and citation	Variable model
B.19 Jeacle & Carter, 2011	A[3] ——→ ST [3]: 'reflexive' use of MA

6.6.1 Comparison between models

Thus, studies use two types of models: additive linear models (e.g. Seal et al., 1999; Langfield-Smith & Smith, 2003; Coletti et al., 2005; Emsley & Kidon; 2007; Langfield-Smith, 2008; Free, 2007, 2008; Neumann, 2010) and bidirectional intervening variable models with feedback effects (e.g. Vélez et al., 2008). Overall, these studies show that the features of management accounting information or processes affect trust. However, they also show that trust affects management accounting.

When comparing all models, there are no obvious conflicts between them. A direct additive linear model is not in conflict with an intervening variable model. The intervening variable model simply adds factors to the model. However, some studies show that trust affects management accounting, which in turn has a feedback effect on trust. Generally, models are identified as compatible and there is no conflict between them.

However, mixed results in the area need to be highlighted. On one hand, high levels of trust are associated with high levels of relevancy in management accounting information. On the other hand, high trust is associated with low levels of relevancy concerning management accounting information. There is consequently opposite results in the area, which are discussed in forthcoming chapters.

Further, although there are no obvious conflicts between the models of management accounting and trust, there is a debate in the extant trust and control literature concerning the role of trust from *a control perspective*. If comparing some of the more explicit models of trust control in studies on Map B, some conflicts arise. However, it lies outside the scope of this thesis to discuss conflicts between models of 'trust and control'. Some studies assume that trust complements control, whereas others assume that trust is a substitute for control, or that trust and control are supplementary (cf. Das & Teng, 1998). Further, these two perspectives cause conflicts between variable models. For example, there is a conflict between Dekker's (2004) and Langfield-Smith & Smith's (2003) explicit models, which is a typical example of the different roles trust has in relation to control.

Several authors state that the relationship between trust and control is unclear (cf. Caglio & Ditillo, 2008; Das & Teng, 1998; Nooteboom, 2002; Möllering, 2005). According to Map A, there is mainly a complementary and supplementary role for management accounting and trust. In the direct additive model, trust and management accounting complement each other in order to manage and control the relationship (e.g. Seal et al., 1999; Johansson & Siverbo, 2011). Or, trust and management accounting, mutually and over time, reinforce each other, which points to a supplementary perspective (a mutual recursive model) (e.g. Dekker, 2004; Vélez et al. 2008).

Theoretically, if comparing a direct linear model with a mutually recursive model, the former is a simplistic representation of the same phenomenon. The latter takes into consideration more attributes (and events) over a longer period. However, when doing that, assumptions about equilibrium come to the fore, i.e. if and when it is reached. These aspects are discussed later in this thesis.

6.7 Conclusion – Meaning and Models on Map B

6.7.1 Management accounting

Three categories and related features have been identified in studies on Map B. The first category of management accounting variables on Map B concerns accounting information per se, which plays a key role in dyadic relationships, for example when achievements are measured and evaluated and when parties need to learn about each other's financial and commercial objectives. The overall feature this category of variables refers to is the degree of relevance.

The second category of variables refers to how organizations consider the whole management accounting process that encounters organizations in different types of interorganizational settings. The overall character of this category is the level of acceptability.

The third category addresses the intentional and reflexive use of management accounting. This group of variables is distinct from the perceptions of management accounting information and from management accounting processes per se, because it deals with aspects of how human actors make use of management accounting and the information produced by it in an intentional way. The overall feature of this category is the level of favorability. Similar features are also found in studies on Map A, but on Map B, these features affect dyads, industries and networks rather than individuals per se.

6.7.2 Trust

Three general types of trust are visible when analyzing the trust meaning on Map B: a rational and an emotional trust between individuals and organizations as well as system trust (i.e. trust in management accounting). Compared with Map A, an emotional trust type is here visible. Further trust is treated as a bilateral concept, i.e. it is visible in a dyadic relationship between two parties.

6.7.3 Models

Models are additive linear or intervening models with feedback effects, and no actual conflicts between models are identified. Studies model similar factors, add or subtract factors or investigate factors over different timeframes. This, however, implies that two basic models are visible; a bidirectional model and a unidirectional model. On one hand, studies assume that an optimal level of control is reached when management accounting affects trust (a complementary view). On the other hand, in the bidirectional type of model, control is assumed never to be optimal. Here, management accounting and trust affect each other over time in a mutually reinforcing way (a supplementary view). Further, opposite results are also visible in the area. High levels of trust cause both low and high levels of management accounting information relevancy.

6.7.4 Comparison between Map A and Map B

Map A and Map B draw on similar features, but the effect and function of these features differ between maps. On Map A, features affect one party in a relationship, while Map B instead investigates the effect of these features in a relationship. This means, in particular, that in studies on Map B the relationship is the main level of analysis, while in studies on Map A, one side of the relationship is instead in focus. That is so because Map B is interested in cooperation between organizations, while Map A focuses on how to manage the individual in the organization. That is the main difference between studies on Map A and Map B. The features of management accounting information, on one hand, affect the individual's attitudes towards another individual, i.e. a unilateral effect. The individual is thus treated as an individual isolated from relationships with others. On the other hand, they affect how two parties view each other, i.e. a bilateral relationship. This will also have consequences for how trust is treated. Map B focuses on interaction and relationships compared with Map A, where the focus is rather on one party of a relationship. Trust is thus conceptualized as having an emotional dynamic bilateral character (Map A) as well as a rational static and unilateral character (Map B).

6.8 Theory and Assumptions - Map B

On Map B, studies have integrated reasoning and assumptions from different disciplines, causing an eclectic mix of theories. For example, economic reasoning is integrated with cognitive psychology, social action theory or organizational theory. Generally, studies draw on TCE (e.g. Seal et al., 1999; Langfield-Smith & Smith, 2003; Dekker, 2004; Johansson & Siverbo, 2011; Cäker & Siverbo, 2010), AT (Coletti, 2005) or organizational theory (Dekker, 2004; van der Meer-Kooistra & Scapens, 2008). TCE or AT are often drawn on as the basic theory, constituting the starting point to explaining when, how and why organizations opt for different interorganizational controls structures. The basic assumptions about information and the behavior of individuals and organizations inherent in these theories constitute the underlying premises from which studies derive their factors and models. However, studies often relax these assumptions by extending, broadening and/or including several perspectives in the same model.

6.8.1 Basic assumptions

Both TCE and AT[31] start from the neoclassical theory of the firm, where the firm is seen as a production function. TCE regards the firm as a control structure and AT regards it as a nexus of contracts (Huemer, 1998). However, the assumptions implicit in these theories are mainly the same (Ibid). Two assumptions are of main importance here: the assumption of opportunism or moral hazard (self-interested individuals with divergent goals) and the assumption of bounded rationality (Simon, 1957). Humans intend to be rational but experience cognitive constraints and are only rational in a limited sense. The notion of opportunism in TCE implies a similar reasoning to the concept of 'moral hazard' referred to in AT (Huemer, 1998). The principal and agent (employer/employee or superior/subordinate) are assumed to have divergent interests and goals (also evident in studies on Map A).

TCE and AT are concerned with the question how these divergent interests can be brought more into alignment. Consequently, one of the core challenges in both theories, due to their basic assumptions, is to assure that self-interested individuals do not act against the principal or a cooperative partner's well being. Contracts, formal control, monitoring and incentive systems are examples of activities fulfilling the role of goal alignment. Studies that model trust in relation to these formal control mechanisms argue that the 'contract' or 'governance mechanism' is left incomplete, due to

[31] See Huemer (1998) and Möllering (2006) for a thorough comparison of these theories.

bounded rational humans. Formal control or agency contracts cannot manage all uncertainty; therefore, trust is also needed to handle the remaining uncertainty.[32] Management accounting is here generally seen as a practice and activity that is important to reinforce the contract, i.e. align parties' different interests and divergent goals (e.g. Seal et al., 1999; Langfield-Smith & Smith, 2003). Management accounting, among other control mechanisms,[33] will ensure that interests are aligned and that the agent behaves in the best interests of the principal. However, management accounting information, for example, is seen as incomplete because of bounded rationality, which makes trust an '*alternative uncertainty reduction mechanism*' (Tomkins, 2001). Trust is needed in these theories in order to complete management accounting information (i.e. the contract or the safeguards installed) (Anderson & Dekker, 2011).

6.8.2 Extended assumptions

In studies on Map B, TCE and AT are never utilized in a pure form. Their reasoning is in all cases almost exclusively an extended version of their basic arguments. This implies that the sometimes very strong assumption of opportunism is utilized in a more relaxed version. Generally, the assumption of a purely self-interested and opportunistic individual independent of a social context is relaxed and broadened. First, all studies that conceptualize and model trust have already broadened human preferences to include trust preferences as well. If conceptualizing different interorganizational relationships as a continuum, the relaxation of the basic assumption concerning a purely self-interested opportunistic player comes gradually, as one moves from left to right on the continuum (see Figure 6.8). At one end, we have a pure market transaction and at the other end a fully integrated firm (vertical integration). According to Huemer (1998), as one progresses along the continuum, firms use more administrative and bureaucratic forms of control and less market control.[34] Further, when moving along the continuum, the assumption of moral hazard and opportunism is replaced by mutual trust (cf. Dekker, 2004; Vélez et al., 2008; Neumann, 2010). The behavioral assumption is thus radically altered as one

[32] Compare this reasoning with Map A; similar arguments were found in Otley (1978) and Gibbs et al. (2004).

[33] Management accounting is related to output control or result control.

[34] For a thorough discussion of TCE and its different organizational or governance forms, see Williamson (1991). For a management accounting context, see Speklé (2001) and for interorganizational relationships generally, see (Ring & van de Ven, 1992).

moves from left to right in the figure. Many studies on Map B have extended the basic assumptions and have thus moved from the left periphery to the middle or to the right end of the continuum.

Transactions---repeated transactions----long-term relationships----partnership----strategic alliances------vertical integrations

***Figure 6.8** The range of interorganizational relationships (In Huemer, 1998, based on Webster, 1992).*

Second, other assumptions and preferences are also taken into consideration. For example, the social embeddedness of actors and social context is argued to play a large role in interorganizational cooperation, where preference for others' well being is added to the purely self-interested individual. Studies that extend and relax the basic assumption in the TCE framework point out the importance of social relationships for trust (see Langfield-Smith & Smith, 2003; Dekker, 2004). Here, the general assumption is that trust matters in ongoing long-term relationships between organizations. The criticism is against the self-interested model independent of a social context. For example, studies have shown that agents do not always behave in an economically rational way or take advantage of the opportunity to maximize utility (cf. Uzzi, 1997). Further, they can subdue individual interest for the sake of the whole (cf. Lindenberg, 2000). In addition, agents might value work for its own sake, because they are motivated by intrinsic rewards, such as self-fulfillment and cooperation, rather than only by extrinsic tangible rewards (cf. Vosselman & van der Meer-Kooistra, 2006; Osterloh & Frey, 2004). Consequently, some studies expand the narrow and self-interested model of man to include relational and trust-based perspectives as well as other motivations. Other less rational behavior in control structure choice can be included and other management accounting functions might thus be visible, beyond a strict control function (Vosselman & van der Meer-Kooistra, 2006; Vélez et al., 2008).

Third, other criticism, voiced from studies on Map B, is against a pure TCE/AT reasoning that is seen as too static (Dekker, 2004; Vélez et al., 2008). The theory is criticized for its lack of attention to processes and dynamics and that it misses the relational and interactional dimensions of an ongoing relationship. As Vosselman and van der Meer-Kooistra (2006) put it: '*It ignores the relation processes at the level of the relationship that have the potential to provide for trust*' (p. 129). When broadening a purely static reasoning to include a more processual approach, as some studies have, a more dynamic, relational and interactional perspective comes to the fore (e.g. Vélez et al., 2008). The transaction is instead seen as a continuing affair. Some studies have thus extended pure TCE/AT reasoning to include relational dynamics and social embeddedness as well.

6.8.3 Examples of variables related to basic assumptions

A variable directly derived from an extended version of TCE/AT is emotional trust (e.g. goodwill trust) (Langfield-Smith & Smith, 2003; Dekker, 2004; Vélez et al., 2008; Neumann, 2010). This type of trust shows that parties value the relationship as such and they are prepared to put their own self-interests aside in favor of others' well being in order to protect the relationship. Consequently, when there is emotional trust, purely self-interested individuals turn into other regarding actors. Interest for one's own well being can thus also include interest for others' well being (Lindenberg, 2000).

The presence of emotional trust in studies on Map B supports this 'other regarding' model of man. Emotional trust is thus an effect of the interactions between parties in a relationship and a move away from a focus on one single transaction to more long-term relationships. It is also a move away from a pure economic, instrumental and/or a pure cognitive perspective. It is a broadening and adding of perspectives to include social aspects as well.

When extending the perspective of TCE, the ongoing relationship is more important than one single transaction. However, this long-term relational process perspective does not go against the perspective of control, as strongly assumed in TCE. From a process perspective, the process of developing control in order to reduce potential opportunistic behavior in itself leads to trust creation. Emotional trust is thus developed and maintained in the process of gaining control (cf. Dekker, 2004; Vélez et al., 2008; Langfield-Smith & Smith, 2003). Langfield-Smith and Smith (2003) argue, for example, that *'the development of rigid performance indicators [control] itself played an important role in the development of goodwill trust'* (p. 303).

A study that extends TCE/AT reasoning is that by Vélez et al. (2008). They include discussions about how formal control (i.e. management accounting information and processes) and trust influence each other over time in order to control parties' behavior and coordinate activities. From a long-term perspective, extending TCE reasoning allows coordination activities to become important along with control activities (cf. Caglio & Ditillo, 2008). An extended perspective of TCE reasoning thus points out control but also coordination functions for management accounting and trust.

Rational trust is also a factor conceptualized in studies on Map B. While emotional trust is a result of interaction and social embeddedness, rational trust is a variable directly derived from bounded rational individuals that is assumed in incomplete contracting and control structures (Coletti et al., 2005; Emsley & Kidon, 2007). This means that trust is the part of the contract that management accounting (control) cannot account for.

For example, Johansson and Siverbo (2011) discuss the outsourcing of municipal services from a pure principal/agent perspective. They conclude that trust is a function of open and visible management accounting information. When both the agent and the principal have access to relevant information and when they both participate in the process of formulating performance indicators, the principal will have positive expectations about the agent's behavior. Consequently, even in a pure agent/principal relationship, (rational) trust is shown to be important. That is so because the contract and safeguard against potential opportunistic behavior can never be complete, and not all possible contingencies can be fully explored due to bounded rationality. The last part of the contract, the part that cannot be controlled for, needs to be handled by '*an alternative uncertainty absorption mechanism*', i.e. trust (Tomkins, 2001).

However, the questions concerning how and why parties come to assess trustworthiness and develop trust in each other are not of main concern in pure AT reasoning.

Seal et al. (1999) and Langfield-Smith and Smith (2003) also imply that the choice of control structure leads to rational trust. Owing to bounded rationality, information impactedness (a factor directly derived from the assumption of bounded rationality) and opportunism, parties need to install a control system (management accounting) in order to reduce information impactedness and improve the transaction atmosphere and relationship. An appropriate control structure, including management accounting and the development of trust, reduces uncertainty and decreases failure (Ibid). These studies imply that management accounting information as such is important for trust, but they never explore the how and why question in any depth, i.e. how and why do parties come to assess trustworthiness and develop trust in each other. The reasoning from a pure TCE/AT perspective sees a role for trust, but it is never interested in explaining and understanding trust per se.

6.8.4 Assumptions in organization theory

Studies on Map B that draw on organization theory have similar assumptions about a bounded rational individual who does not have the wits to foresee all relevant factors, as in TCE/AT reasoning. This leaves him or her with a high degree of uncertainty, which control and trust tries to absorb. However, in studies drawing on organizational theory on Map B, the assumption of opportunism is downplayed. Instead, other problems come to the fore, such as the division of labor and specialization. These problems also demand a control structure, including management accounting in order to reduce uncertainty (e.g. Scapens & van der Meer-Kooistra, 2008; Free, 2007; Dekker, 2004). Similar to TCE/AT reasoning, but instead of speaking of control in order to align parties' interests, organizational perspectives speak in terms of coordination in order to coordinate and manage different goals, tasks and interests.

Consequently, organizational and economic-oriented approaches have divergent goals and bounded rationality as common denominators. Generally, when drawing on either organizational theory or TCE/AT, management accounting is motivating partners to achieve desirable or predetermined outcomes (Dekker, 2004; van der Meer-Kooistra & Scapens 2008). Management accounting and trust thus have a role to play in reducing uncertainty, regardless of what kinds of problems cause the uncertainty and despite different theoretical lenses.

In conclusion, different theories and perspectives (AT/TCE, organizational theories and psychological theories) have similar basic assumptions, namely divergent goals and interests and bounded rationality. Further, management accounting is motivating partners, individuals and organizations towards cooperation, unity and balance.

6.8.5 Typical models and basic premises

The central assumption on Map B thus points out management accounting and trust as two important factors to control and coordinate the interorganizational relationship. This underlying premise can be found implicitly in all studies on Map B. Figure 6.9 shows these two factors that account for control in a additive linear way.

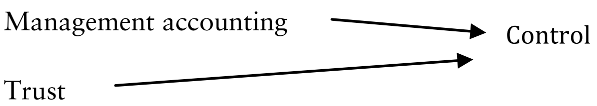


Figure 6.9 *The need for management accounting and trust due to control problems - a basic premise on Map B*

However, when this basic premise is conceptualized, operationalized and studied on Map B, two typical models are visible. Generally, these models show that management accounting and trust are dependent on each other, as the basic model in Figure 6.9 shows. On the contrary, trust and management accounting have a more conditional relationship compared with the basic model in Figure 6.9. Two typical models on Map B are visible. The first shows that management accounting is related to trust in a direct linear way (e.g. Seal et al., 1999; Johansson & Siverbo, 2011). The assumption here is that trust is dependent on management accounting. Further, an optimal level of control is reached when management accounting cause a certain level of trust. In the control and trust literature, this relationship is referred to as the 'complementary view'. From this view, trust is assumed to complement control. Owing to incomplete contract/control, trust accounts for the remaining uncertainty[35] (Figure 6.10).

Management accounting $\longrightarrow$ Rational trust

Figure 6.10 *Management accounting affects trust (a complementary view).*

The second typical model rests on the assumption that management accounting and trust, over time, affect each other in a positive way (Dekker, 2004; Vélez et al., 2008). This could imply that there is no optimal level of control, namely the level could always be higher. The main differences between these two types of models have to do with when (or if) equilibrium is reached. In the former model, equilibrium is reached when trust complement other types of control. In the latter model disequilibrium is prolonged or even never reached (Covaleski et al., 2007; see Figure 6.11). This view is referred to as the 'open-ended supplementary' view (see Das & Teng, 1998).

Management accounting $\rightleftarrows$ Rational and emotional trust

Figure 6.11 *Management accounting and trust affect each other*

In addition, the negative relationship between trust and management accounting implies that in the aim for control, and if trust is very high, the need for management accounting becomes very low (cf. Merchant & Groot, 2000; Cuganesan, 2006; Cäker & Siverbo, 2011). When management accounting and trust are seen as alternative uncertainty reduction mechanisms, trust can reduce uncertainty up to the point that management accounting is deemed to be unnecessary. This means that trust has a negative linear effect on management accounting (Figure 6.12).

[35] See Das & Teng, 1998 and Vosselman & van der Meer-Kooistra, 2009, for a thoroughly discussion of different relationships between trust and control.

Management accounting ←-------- Emotional trust

Figure 6.12 *Trust affects management accounting negatively*

These typical models also have different assumptions about the behavior and motivation of individuals and the level of social embeddedness assumed. A bidirectional recursive model takes social interaction into account. Trust is thus explained and understood in relationships that are embedded in a social context. Here, the model becomes more complex. There is room for an interactive cognitive process between parties. This model is a challenge for researchers in the interorganizational area to better understand and explain (cf. Vosselman & van der Meer-Kooistra, 2006, 2009). However, this model type is important to understand better, because in the process of gaining control, trust and control (management accounting) have been shown to affect each other and have consequences on each other, which a static and unidirectional model misses. The control level is not given or static. The level can always be changed, implying that management accounting and trust over time mutually affect each other in both a positive and a negative way, as studies have shown. Different trust types are inherent in these assumptions and models.

A unidirectional linear model, as suggested by the former model, where management accounting leads to a certain level of trust, limits the explanation to an independent economic actor, which is not seen as embedded in a social context. In its pure form, this actor is only driven by economic motivation, and foremost he or she is taking one decision at one time (i.e. a static transaction perspective). Such a model does not aim to explain how and why trustworthiness is assessed, and how and why trust develops and unfolds over time in relation to management accounting. Instead, it is derived from the overall aim in TCE reasoning, which explains when organizations opt for different optimal and static control structures, i.e. in which environments or transaction characteristics different modes of control structures are most appropriate (van der Meer-Kooistra & Vosselman, 2000).

Further, the model where trust affects management accounting negatively can be seen as the bieffect of an over-social belief in trust as an uncertainty reduction mechanism. From such perspectives, control and management accounting structures become underdeveloped, and trust becomes the only mechanism parties can rely on in organizational relationships. Management accounting will not play a significant role here. However, a potential consequence of the low relevance of formal management accounting and control structures is that trust will eventually diminish because of a lack of structures that it can rely on. Consequently, the dynamic and evidently changing associations between management accounting and trust warrant further investigation to assess how and why trust and management accounting affect each other over time.

6.9 Map C - What is the meaning of variables and what is the level of analysis?

Table 6.8 lists all the articles discussed in this chapter.

Table 6.8 Citations, Map C

Map C Implementation/change	
B.1 Chenhall & Langfield-Smith, 2003 B.2 Seal et al., 2004 B.3 Busco et al., 2006	B 4 Coad & Cullen, 2006 B.5 Nor-Aziah & Scapens, 2007 B.6 Masquefa, 2008

6.9.1 Management accounting

The following management accounting terms are found in studies on Map C: 'interfirm accounting', 'management accounting system', 'performance measurement and reward system', 'implementation of cost management system' and 'implementation of management accounting' (see also Map C in Appendix C). Generally, studies on Map C address different aspects of system change, system implementation or organizational change-processes. Individuals, subgroups, organizations, dyads and social networks are studied by researchers on this map. What needs to be recognized first is that we must separate two phenomena here. Trust and management accounting play a role in two types of overall phenomena. One refers to the implementation processes of different types of management accounting systems, while the other refers to aspects of change, i.e. changing management accounting systems or practices. In these two phenomena, trust plays a role together with the different dimensions of management accounting. Consequently, different categories of management accounting and different trust types are elaborated on next. Four dimensions of management accounting are identified in studies on Map C. These are elaborated on below.

Perception of management accounting implementation processes

The first category of variables address the different features related to the specific implementation processes of management accounting systems. This variable concerns how organizational members perceive the process when the system is implemented in the organization, i.e. when it is first introduced into the organization. This means that the very process of putting the system into practice in the organization is important, before the system is used in daily operations. The perceptions of the implementation process are distinct from those of accounting information per se and of actual management accounting procedures and processes that are carried out in the organization after the implementation of the system.

The category 'implementation processes' does not involve any particular activities carried out in the organization, such as targeting, measuring, evaluating and monitoring. Further, they are not necessarily related to information per se. The perceptions of the implementation process refer to an experience and a perception about something that is new for individuals and organizational members compared with the processes and system already in place.

The characteristics related to implementation processes include 'participative' (Chenhall & Langfield-Smith, 2003; Busco et al., 2006), 'successful' (Coad & Cullen, 2006; Masquefa, 2008) and 'reduction in autonomy and power' (Nor-Aziah & Scapens, 2007). For example, Nor-Aziah and Scapens (2007) write that *'[…] the new accounting system was intended to […]. But […] [the implementation of the new system] reduced the autonomy of the operations managers and gave them the impression that they were not to be trusted'* (p. 231). Here, it is apparent that when the new accounting system was implemented, it reduced the autonomy and power of a specific subgroup in the organization. Further, Masquefa (2008) writes about management accounting implementation in the following way:

> […] controversial changes, such as the introduction of performance measurement and evaluation systems, may have a relatively high degree of success when financial controllers develop strong ties with operational members/units. (Masquefa, 2008, p. 205)

Here, we can instead notice that the feature of the implementation process is a high degree of 'success'. Busco et al. (2006) instead focuses on a 'participative' implementation process: *'[p]articipation within new management accounting practices enables informed employees to rely upon their reflexive abilities to make sense of the new organizational reality'* (p. 30). Consequently, a high degree of participation in implementation processes is an important and distinct feature. Further, and in line with Busco et al. (2006), Chenhall and Langfield-Smith (2003) state that a *'participative implementation encourages acceptance of the [management accounting process]'*.

In accordance with the above-described features of implementation processes, the overall theoretical feature of such processes can vary between different degrees of favorability for different entities impacted by the implementation process. This implies more generally that the perceptions of the management accounting implementation process might be perceived as favorable or not by individuals, organizational members or different subgroups in the organization. The variation of interest, i.e. the level of favorability of the implementation processes, is assumed to be either the determinant or the outcome of other factors.

Changed management accounting processes

The second group of variables found in studies on Map C refers to the overall feature of management accounting processes or practices per se, as 'changed'. It is important to distinguish this feature as its own category, because when studying a change phenomenon, as some studies predominantly do, this category and feature is the main feature such studies aim to explain (Seal et al., 2004; Busco et al., 2006). In such cases, this factor will comprise its own category. This feature is considered to be the outcome or dependent factor in models. Busco et al. (2006) refer to changed accounting routines that set the frames for individual habits and organizational routines. For example, they state that changed management accounting processes have only gone through real change if individuals change their ways of thinking and acting. That is why individual habits need to be changed if organizational routines are also to be transformed. In comparison, Seal et al. (2004) discuss the phenomenon at a higher level of analysis. They rather explain the change at an aggregated level, i.e. management accounting undergoes a constant transformation in a large industry. Here, management accounting changes its character in the industry because of structural forces and actors with power to impact, while Busco et al. (2006) discuss change at individual and organizational levels of analysis.

However, management accounting processes and practices undergo a transformation in both studies, even though these changes are visible at different levels of analysis, i.e. the organization, individual and industry levels of analysis.

Perceptions of management accounting processes

The third group of variables found in studies on Map C refers to the features related to management accounting processes per se. This category refers to the management accounting process that functions on a daily basis, and to how organizational members perceive the process in day-to-day practices. These features are: 'participative', 'fair' (Chenhall & Langfield-Smith, 2003) and 'unfavorable' (Nor-Aziah & Scapens, 2007).

At an overall level, the feature related to this category is the perceived level of acceptability and legitimacy of the process. In other words, a highly favorable process is accepted by those parties affected by the process. Further, a high level of fairness and participativeness is related to a more general character of being highly acceptable. If individuals perceive the process as fair and favorable, and if they think they can participate in it, they will most likely accept and 'agree' to follow it (Chenhall & Langfield-Smith, 2003). Further, it makes sense to argue, for example, that favorable implementation processes might cause an acceptance for the process per se. This category and its related features are the same category of variables also identified in studies on Map A and Map B. However, on Map C it is related to implementation and/or change.

Use of management accounting

The fourth category of features in studies on Map C refers to actors' intentional use of management accounting information and systems. 'Management accounting use' can be conceptualized in many ways. In studies on Map C, 'use' has been conceptualized in two ways: a 'reflexive' use (Seal et al., 2004) and a 'rhetorical' use (Busco et al., 2006).

A rhetorical use means that the management accounting system is used as an expert language in order to bring about organizational change. Convincing and persuasive accounting and financial rhetoric is used to alter individuals and organizations' ways of thinking and acting (Busco et al., 2006). Busco et al. (2006) write about the rhetorical use of management accounting system in the following way:

> [They] may be used intentionally to challenge existing ways of thinking; to unfreeze old cognitive schemes, and to enact a new set of roles, rules and routines. However, for the change to be enduring, accumulated successful experience must be re-frozen and become part of the shared organisational knowledge. […] this was achieved through the diffusion of […] new organisational practices based on the vocabulary [language] of accounting and measurement. (Busco et al., 2006, p. 38, emphasis added)

Reflexive use means that the system is used in way that exerts power and has impact over other actors (see Seal et al., 2004). Seal et al. (2004) writes that the system is used:

> […] reflexive to monitor and squeeze[e] suppliers by threatening them with competing sources of supply. (Seal et al., 2004, p. 75)

They refer to Giddens' (1991) argument about the character of modern social life as reflexive and leading to changed social practices. Seal et al. (2004) write:

> The reflexivity of modern social life consists in the fact of that social practices are constantly examined and reformed in the light of incoming information about those very practices, thus constitutively altering their character (Giddens, 1991, p. 38 in Seal et al., 2004, p. 77)

These practices, in this case management accounting, are thus transformed and changed because they produce information that is used in a way that changes the relationship between actors (i.e. disembedding or reembedding processes). When relationships change, the use of information also needs to adjust. In close partnerships, parties will, for example, reveal detailed cost information (e.g. OBA), while in more distant relationships, sales information might be revealed, but not sensitive cost information. Thus, when the system and information are used reflexively, it changes the relationships between actors from close partnerships towards more distant arms-length relationships; consequently, management accounting will change its character as well. Generally, the overall feature of management accounting use is the level of favorability of use (for the subsequent change), i.e. with an inherent capacity to impact the change.

In sum, we have four distinct categories of management accounting variables in studies on Map C: perceptions of accounting implementation processes and its level of favorability, perceptions of accounting processes and its level of acceptability, perceptions of accounting processes as the level of change and use of accounting systems with an overall feature as favorability.

If comparing Map A and Map B, the emphasis lies on two other types of phenomena in Map C, i.e. management accounting implementation and management accounting change. These give rise to other factors and features in the model, which are not visible on Map A and Map B.

6.9.2 Trust

In studies on Map C, the object of trust and bases from where trust is reached differ between studies. In studies 3 (Busco et al., 2006) and 2 (Seal et al., 2004), system trust (individuals' trust in the system and in system change) is in focus. Specifically, trust in management accounting, as a predictable expert system, and trust in the occurring change are the objects of trust.

In studies 4 and 5, (dis)trust is of a rational kind. Nor-Aziah and Scapens (2007) write '*[t]here was also a lack of mutual trust in each other's* *competences'* (p. 229). Hence, the study aims to understand (dis)trust between subgroups in the organization, which is based on perceptions of competence. These perceptions are assessed more or less rationally by actors in the organization. Further, competence-, capability- and knowledge-based trust can be categorized into the rational trust category.

In study number 6, interpersonal trust, based on affections between individuals in a social network, causes the implementation process to be realized and successful. Trust is operationalized as 'strong ties' between individuals in the organization. This type of trust can be interpreted as having a similar meaning as an emotional trust type. Masquefa (2008) states that *'[s]trong ties have affective content that develop over time through frequent interactions'* (p. 23). Emotional trust thus develops through continuous interactions and it is formed through affective bonds between people.

Study 1, Chenhall and Langfield-Smith (2003), addresses a more contractual type of trust, which they label 'organizational trust'. Here, organizational trust refers to a contract between manager and employee and means an 'agreement to cooperate'. This type of trust does not refer to an assessment of a person's innate trustworthiness or any emotional bond between people. It refers to a verbal or written guarantee. Hence, an 'agreement to cooperate' is not comparable with the general rational or emotional trust type referred to in other studies, which makes Chenhall and Langfield-Smith's (2003) organizational trust type incomparable with those of other studies.

In sum, in studies on Map C, trust is conceptualized as individuals' trust in management accounting, (dist)trust between subgroups (based on perceptions of competence) and trust between individuals in a social network in the organization (based on affections). These different bases for and objects of trust between individuals and organizations affect management accounting in different ways (see next section). Table 6.9 presents the main management accounting variables and trust types.

Table 6.9 Management accounting and trust variables on Map C

Study	The management accounting variable	Rational Trust	Emotional Trust	Other trust type	System trust	Object of trust
1 Chenhall & Langfield-Smith (2003)	'Participative', 'Fair' MA process 'Participative' implementation process			X		Organizational members
2 Seal et al. (2004)	'Constantly changed/reformed' MA process 'Reflexive' use				X	System
3 Busco et al. (2006)	'Changed' processes 'Participative' implementation process 'Rhetorical' use				X	System & change
4 Coad & Cullen (2006)	'Successful' implementation of MA	X				Organization and dyad
4 Nor-Aziah & Scapens (2007)	'Unfavorable' MA process Implementation of MA 'reduction in autonomy and power'	X				Members of subgroup
5 Masquefa (2008)	'Successful' implementation of MA		X			Interpersonal (social network)

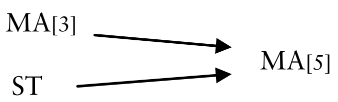
6.10 Map C - What are the directions and shapes of the relationships between variables?

In this section, all studies on Map C and their variable models are described. The factors and their specific theoretical features are described and then related to each other in specific ways. Hence, the ‘whats’ are combined with the ‘hows’. In the panel, each model is described in graphical form. The meaning of the management accounting variable is coded with a number [2], [3] [4] or [5]. Each number refers to one of the four variable groups identified: [2] ‘acceptability of management accounting processes’, [3] ‘favorable use of accounting information/systems’, [4] ‘favorability of the management accounting implementation process’ and [5] ‘changed management accounting processes and practices’. On Map C, trust refers to rational, emotional or system trust. These trust types are coded with the following abbreviations: Rational Trust: T[R], Emotional Trust: T[E] and System Trust: ST. Further, different variable models are distinguished. Finally, potential conflicts between variable models and cross-study differences in the results are identified and discussed.

In study number 1 (Chenhall & Langfield-Smith, 2003), a high level of favorable implementation process perceived by organizational members leads to a high level of acceptability of the accounting process, which affects the agreement between organizational members (i.e. organizational trust). However, this agreement inhibits the development of a more emotional type of trust because of a crowding out effect (cf. Vosselman & van der Meer-Kooistra, 2006). Further, organizational trust leads to improvements in organizational performance. The explanation is that if organizational members have the opportunity to participate in the implementation of the performance evaluation process, they will judge it as highly favorable and find it highly acceptable. Overall, this leads to committed parties who agree to cooperate, and this agreement or ‘contract’ is the implicit meaning of ‘organizational trust’.

Study and citation	Variable model
C.1 Chenhall & Langfield-Smith, 2003	MA[4] → MA[2] → T* → PERF T* ⇢ T[E] [2]: ‘fair’ & ‘participative’ MA process [4]: ‘participative’ MA implementation process * Contractual type of trust

In *study number 2 (Seal et al., 2004),* ‘interfirm accounting’, conceptualized as reflexive use together with system trust, has a positive relation with constantly changed or reproduced accounting processes through the role and function of disembedding processes (the development of relationships distanced through time and space) and reembedding processes (the development of close collaborations). The explanation is that system trust *‘enables transactions that are distanced through space and time’* (Seal et al., 2004, p. 76). For example, system trust enables outsourced relationships and specific forms of interfirm accounting practices, but also implicitly enables building collaborative networks and thus more local forms of accounting practices. At the same time, a use of these practices and the information produced by them may be used *‘reflexively to monitor and squeez[e] suppliers by threatening them with competing sources of supply’* (Ibid, p. 75). Taken together, this leads to constantly reproduced accounting practices.

Study and citation	Variable model
C.2 Seal et al., 2004	 [3]: ‘reflexive’ use [5]: ‘change’ MA process

Study number 3 (Busco et al., 2006) investigates the relation between the management accounting system, system trust and organizational and system change. Trust in the system in combination with a new accounting rhetoric influences actors’ abilities to reflect critically on (new) accounting practices/processes and participate actively as ‘competent […] (knowledgeable) actors’ in the management accounting implementation process and thus reassess existing ways of thinking (trust in change). This in turn leads to changed accounting processes, i.e. changed accounting behavior, and accounting routines. The model is an additive intervening variable model, where individuals’ abilities to participate in and reflect on management accounting practices and thus reassess existing ways of thinking gives confidence and trust in the change. This mediates the relationship between system trust, accounting rhetoric and changed accounting processes.

Study and citation	Variable model
C.3 Busco et al. (2006)	ST $\rightarrow$ MA[4] $\rightarrow$ T* $\rightarrow$ MA[5] MA[3] $\nearrow$ MA[4] [3]: use of MA as a 'rhetorical expert language' [4]: 'participative' MA implementation process [5]: 'changed' MA process * Trust in change

Study 4 (Coad & Cullen, 2006) shows that trust leads to the 'successful' implementation of a cost management system. The variable model in this study is interpreted as an additive linear model. Trust between people lead to a successfully implemented management accounting process.

Study and citation	Variable model
C.4 Coad & Cullen (2006)	T[R] $\rightarrow$ MA[4] [4]: 'successful' MA implementation process

Study 5 (Nor-Aziah & Scapens, 2007) is interpreted as an intervening variable model to describe different actions and events between two subgroups in one organization. The implementation of a new budget system leads to low levels of trust through the perception of the budget as being unfavorable for a specific sub-group. The implementation of a new budget system, perceived as a reduction in autonomy and power by operational managers, is associated with trust. An unfavorable perceived implementation process causes an unfavorable perception of the accounting process, and consequently low acceptance for it, which subsequently leads to low trust.

Study and citation	Variable model
C.5 Nor-Aziah & Scapens (2007)	MA[4] ⟶ MA[2] ⟶ T[R] [4]: perception of MA implementation process ’reduction in autonomy and power [2]: ‘unfavorable’ MA process

Study 6 (Masquefa, 2008) models ‘strong ties’ between people in a social network and a successful implementation of a performance measurement system. The variable model in this study is interpreted as an additive linear model. Affective bonds (i.e. emotional trust) between people lead to a successfully implemented management accounting process. The explanation is that social interactions that are highly frequent and continuous lead to strong ties between parties, which in turn leads parties to agree on a specific management accounting system (not imposed) and thus to a successfully implemented management accounting system.

Study and citation	Variable model
C.6 Masquefa (2008)	T[E] ⟶ MA[4] [4]: ‘successful’ implementation of MA process

6.10.1 Potential conflicts and possible inconsistencies

Overall, studies on Map C model (four) management accounting factors and (four) trust types. Further, they refer to two general phenomena. However, what studies do have in common is that trust of one or another kind, have a part in the implementation or/and change process. Or the other way around, trust is the result of the features of the implementation process.

The phenomenon of management accounting implementation

When comparing models and their features, Chenhall & Langfield-Smith (2003), Coad and Cullen (2006), Nor-Aziah and Scapens (2007) and Masquefa (2008) elaborate on and model the same phenomenon, namely the implementation of a management accounting system and its processes. In this respect two aspects related to the conclusiveness in the area must be noted. First, studies model different trust types, i.e. a rational type, an emotional type and a contractual type. The contractual type of trust is not easily characterized as trust per se; rather this 'trust type' refers to a contract between organizational members where they agree to cooperate. This type of trust is thus not comparable with the rational and emotional categories. Second, there are no obvious conflicts between models. Chenhall and Langfield-Smith (2003) and Nor-Aziha & Scapens (2007) confirm each other's result. They come to the same conclusions, namely that a high (low) level of favorability of implementation processes leads to a high (low) level of acceptability of the management accounting process, which leads to high (low) levels of trust. Likewise, Coad and Cullen (2006) and Masquefa (2008) show that a high level of (emotional) trust may lead to a highly favorable implementation process. Here, we see that trust instead is modeled as the independent variable, which has a direct linear impact on implementation processes; the opposite goes for Chenhall and Langfield-Smith (2003) and Seal et al. (2004), where trust is modeled as the dependent variable. Thus, there is a bidirectional relationship between management accounting implementation and trust. However, it is important to note that different types of trust can be involved in these processes.

The phenomenon of management accounting change

Seal et al. (2004) and Busco et al. (2006) elaborate on management accounting change. At an aggregated level, these two studies add insights into each other's findings. Busco et al. (2006) add to Seal et al.'s (2004) picture. First, Seal et al. (2004) show that high levels of system trust and a high levels of favorable use (favorable for change) lead to changed management accounting practices. Busco et al. (2006) complement this picture by modeling intervening factors that mediate and intervene in the course of action.

Both studies conceptualize system trust and 'management accounting use' as antecedent factors, and end the model with the same factor, i.e. a 'changed management accounting process'. However, Busco et al. (2006) show that system trust and management accounting use cause a favorable implementation process and 'trust in change', which in turn leads to a changed management accounting process. There is no conflict between these two types of models. Interestingly, Busco et al. (2006) state that a favorable implementation process has a positive effect on specific management accounting change. Theirs is the only study that combines the two factors of 'implementation' and 'change'. However, their dependent or outcome factor is a changed process, which implies that they are predominantly interested in explaining what causes change in management accounting practices and processes.

6.11 Theory and Assumptions - Map C

Generally, studies on Map C investigate the implementation and change of management accounting practices within and between organizations. Studies perceive these implementation and change processes as problematic in organizations. That is so because the underlying assumptions in these studies are that organizations and groups of organizations are characterized by multiple interests, divergent worldviews and different ways of giving meaning to organizational aspects. This means that values and norms can conflict between different interest groups. While Map A foremost sees that conflict is present between individuals' own goals and the goals of the organization, the conflict here is related to different interest groups in the organization.

However, these studies also assume that conflicts or divergent interests can be resolved by better communication and dialogue (Nor-Aziah & Scapens, 2007), pervasive language (Busco et al., 2006) or higher levels of trust (Masquefa, 2008). In such processes where different interests can be aligned, shared values and shared norms are facilitated by social processes and social interaction. In social interaction, different interests can converge. The focus of the analysis is thus on individuals, groups and organizations' interpretations of the social relationships they found themselves in and where they consequently define the situation and take action.

On Map A and Map B, divergent interests are also assumed, and these are resolved with different types of motivations, control structures and activities. In studies on Map C, the ways of resolving conflicts and divergent interests are not categorized under the headings of 'motivation' or 'control'. Instead, social interaction, social exchange of meaning, negotiation, participation or reflexivity are used as heuristics to 'align parties' divergent interests'. A higher degree of volition is attributed to individual actors, implying that individuals and organizations do not 'behave' but rather 'take action', 'enact' and 'interact'.

Busco et al. (2006), for example, explain how and why individuals in organizations define and interpret a new situation and how they come to change their ways of enacting new management accounting routines. Individuals share new ideas, attribute meanings and reassess existing ways of thinking. The study shows how the organization is able to transform itself from one meaning system to another. Here, trust and management accounting play a large role in facilitating this change. In Nor-Aziah and Scapens (2007), two meaning systems are in conflict and thus cause distrust between subgroups within the organization. Distrust can thus be seen as a factor directly derived from the assumption of divergent and pluralistic interests.

Masquefa (2008) and Coad and Cullen (2006), as did Nor-Aziah and Scapens (2007) and Busco et al. (2006), emphasize social interaction and the nature of social relationships in order to successfully introduce a management accounting system, where different interests are assumed to be present. Here, trust functions as a facilitator of change.

Change thus occurs when the accounting system is compatible with norms and routines (Busco et al., 2006), when successful routines are imitated (Coad & Cullen, 2006), when trust between people is present (Masquefa, 2008) and when management accounting is trusted (Seal et al., 2004; Busco et al., 2006). Both accounting and trust are seen as resources to be drawn upon for change to happen. Trust gives people the resources to challenge taken-for-granted assumptions and to overcome survival anxiety, which is necessary for change to take place. Trust is fostered by management accounting but is also a prerequisite for management accounting to change (Busco et al., 2006).

6.12 Conclusion and comparison between Map C and Maps A/B

Studies on Map C emphasize the divergent interests between interest groups to understand implementation and change aspects. They utilize divergent interests in order to explain how and why change can be facilitated in organizations. However, as seen on Map A and Map B, some studies also assume divergent interests and conflicts between different subsystems. In that respect, they have similar assumptions. The difference between studies on Map C and all other studies is that the former aim to explain and understand other dependent variables.

For example, in studies on Map A, the dependent variable is often reduced to job-related tension or job satisfaction, implying the importance of gaining control over individuals' behavior and their attitudes to work. Map B has a similar focus, i.e. how to gain control over partners and business relationships. Map C, by contrast, is not about explaining and understanding control per se. These studies aim to understand how and why conflict-filled management accounting systems can be implemented and how and why change is facilitated in organizations.

However, the assumptions of pluralistic interests and purposeful and intentional agents are actually not that strong, as these divergent interests cannot be resolved. After all, studies in the area of management accounting and trust delve around a rather regulative functional paradigm (Burrell & Morgan, 1979). Some studies are more regulative and functional in that sense, as the factors they find important to model are the formal control system and its effects on individuals (Map A and Map B). However, these studies cannot forgo the fact that the human subsystem is hard to predict, which also raises questions related to how individuals take decisions, create meaning and interact in a social sphere. Other more volitional studies are predominantly found on Map C. A factor directly derived from the assumption of purposeful and intentional agents is the 'reflexive' and 'intentional' use of accounting information and accounting systems (Seal et al., 2004; Busco et al., 2006; Johansson & Baldvinsdottir, 2003; Free, 2008). This factor is important for explaining both efficiency and higher performance in organizations (Johansson & Baldvinsdottir, 2003; Free, 2008) as well as organizational change (Seal et al., 2004; Busco et al., 2006). In these studies, actors have large room for maneuver and they are attributed strong and intentional power to make an impact. They have thus attributed a volitional role to individuals and groups of individuals in organizations.

7 MANAGEMENT ACCOUNTING AND TRUST – A REVIEW

Based on the previous conclusions about aggregated factors, the literature is reviewed in this chapter. The aim of this chapter is to describe and analyze our understanding in the area of management accounting and trust, i.e. to identify inconsistencies, weaknesses and gaps. All three areas are described separately, according to the factors studied and relationships between factors, followed by a discussion of the issues of importance to emphasize.

The aggregated models elaborated on in this chapter have been simplified in order to emphasize similarities and differences. This implies that factors other than trust or management accounting (e.g. job-related tension, pay satisfaction, performance, etc.) are not part of the explicit model. Instead, they are implicit in the basic assumptions behind the model. In Chapter 8, these three areas will be consolidated in order to characterize and review the whole area. The three maps are thus dissolved and the literature as a whole reviewed.

7.1 Map A - performance evaluation and trust within organizations – a review

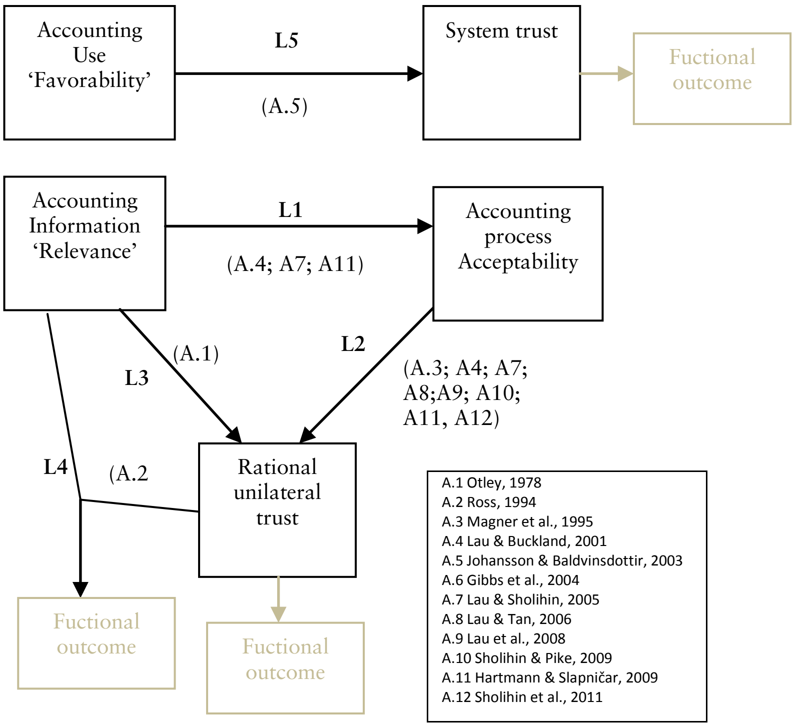


Figure 7.1 *Management accounting and trust - Map A*

Derived from the analysis and conclusions in Chapter 6, three overall categories of management accounting variables and two general types of trust variables are visible in the area. Generally, associations between variables are unidirectional, linear, additive, intervening or interactional types. This means that management accounting affects trust in a linear way either directly (Otley, 1978) or through intervening variables (e.g. Sholihin & Pike, 2009; Hartmann & Slapničar, 2009). Moreover, as one study shows, management accounting information and trust interact to cause a favorable outcome (Ross, 1994). The five associations between factors will be elaborated on next (links 1–5).

Links 1 and 2

The majority of studies on Map A show that relevant and accurate management accounting information is related to the acceptance of a highly legitimate management accounting process (link 1) (Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009). This in turn leads subordinates to assess their superior as trustworthy (link 2) (Magner et al., 1995; Lau & Buckland, 2001; Lau & Sholihin, 2005; Lau & Tan, 2006; Lau et al., 2008; Sholihin & Pike, 2009; Sholihin et al., 2011).

The features of accounting information are seen as important independent factors that affect other factors in the model. As concluded in Chapter 6, the general explanations and assumptions this factor draws on are cognitive psychology and agency reasoning. The explanation focuses on how and why individuals are affected by accounting information when it is utilized in performance evaluation situations.

The mental representation subsequently motivates them to take action (e.g. start to assess trustworthiness). Consequently, whether they act out of a psychological unfulfilled need, an economic unfulfilled need or a need to complement economic with intrinsic rewards is of less importance for trust, because trust is assumed to be the consequence in all cases.

Further, highly relevant accounting information is likewise equally important in this respect. The basic assumption implicit in this association is related to bounded rationality, which in AT implies an incomplete contract, and in cognitive psychology mental tension/mental inconsistency. In both cases, this motivates individuals to take action in order to reduce the unpleasant mental state or satisfy the unfulfilled need, with trust the consequence.

Further, as links 1 and 2 suggest, when a trustor (e.g. a subordinate) finds management accounting information to be highly relevant, he or she is more inclined to participate in and consequently accept the management accounting process. The level of acceptability of the accounting process is thus a consequence of highly relevant information. As concluded in Chapter 6, an acceptable accounting process has gained legitimacy from the actors impacted by the process.

Acceptability and legitimacy of the process is important for it to be functional from a trust perspective. If a subordinate finds the accounting process to be acceptable and legitimate, he or she will judge the superior as more trustworthy (link 2). This might be so because trustworthiness is ascribed to the one responsible for the process, i.e. to the one who has the power to make the process more or less acceptable (cf. Mayer et al., 1999; Lau & Buckland, 2001; Lau & Tan, 2009; Hartmann & Slapničar, 2009). Consequently, he or she will assess the trustee (the superior) as more trustworthy. Trust is consequently seen as an indication that the perception of uncertainty has been absorbed (as much as it can), which will have functional consequences for the organization (or the principal).

As concluded in Chapter 6, the trust type, which is a consequence of accounting information and accounting processes (links 1 and 2), is a rational type of one-sided trust. This trust type refers to a certain level of trustworthiness a trustor has for a trustee at a certain point in time, i.e. a unilateral conception of trust. Generally, a trustor (a subordinate/agent) has rated the level of trustworthiness he or she experiences about the trustee (a superior/principal). A mental state about the trustworthiness of the trustee is thus enforced. This means that the trustor has gone through a more or less rational consideration in his or her mind when thinking about the trustee along different trust statements, which lays the platform for a rational trust type. The focus is thus on the agent's trust in a principal, because if the agent has trust in the principal, the principal will assume that the agent will not act against his or her interests. The remaining and uncontrolled uncertainty, from the principal's view, is then potentially reduced. Further, this is functional for the principal (and the organization as a whole).

In sum, a superior who evaluates a subordinate with highly relevant information is seen as more trustworthy than a superior who uses inaccurate and irrelevant information, i.e. low levels of relevant and accurate management accounting information. That is so because, the information and the subsequent evaluation process are highly important for the individual subordinate, as it affects his or her performance targets, goals and rewards (cf. Lau & Buckland, 2001; Hartmann & Slapničar, 2009). Generally, highly relevant accounting information and highly accepted and agreed accounting processes lead to high levels of trust and vice versa.

Link 3

We can also identify a direct linear relation between management accounting information and trust (see link 3) (Otley, 1978). As before, a superior who evaluate a subordinate with highly relevant information, is seen as more trustworthy, than a superior who use inaccurate and non-relevant information, i.e. low levels of relevant and accurate management accounting information. That is so, because, the information is highly important for the individual subordinate, because it will have a considerable impact on him, related to his performance targets, goals and rewards (cf. Lau & Buckland, 2001; Hartmann & Slapinčar, 2009). Generally, high relevant accounting information leads to high levels of trust and vice versa (Otley, 1978).

Link 4

Although in conflict with links 1 and 2, there is an interactional relationship between management accounting information and trust (link 4). Here, highly relevant accounting information and high levels of trust have highly functional consequences (Ross, 1994). This emphasizes whether trust is dependent on accounting information (links 1 and 2) or independent of it (link 4), and represents two ways of portraying trust and management accounting information.

Link 5

The second independent factor in the area is 'management accounting use'. As concluded in Chapter 6, this concerns the level of favorability from the perspective of the one who is affected by management accounting use and consequently the trustor, i.e. the one who will develop trust or not. For example, if a superior uses accounting information in a highly favorable way, subordinates will form a certain trust level.

Favorable use affects individuals in a favorable way due to actors' capacities to influence others (cf. Johansson & Baldvinsdottir, 2003). Favorability thus implies that the system and its information are used in a way that is advantageous for the one who is impacted by the system. For example, in a performance evaluation situation an accountant may explain and interpret the figures for the employee (in a helping and confidence inspiring way). Consequently, the employee will feel that accounting information and the accounting system have been utilized for his or her own benefit (e.g. Baldvinsdottir, 2001). An intentional and 'helpful' use of management accounting is thus conceptualized as a motivational factor with the objective of reaching a functional outcome for the organization.

Further, favorable use has one important effect. Specifically, link 5 shows that the deliberate and favorable use of management accounting leads to trust in management accounting (Johansson & Baldvinsdottir, 2003). Management accounting is constituted by individuals representing the system but also by the accounting figures as such. Owing to intentional and highly favorable use, subordinates assess and judge the representatives of management accounting as trustworthy (or not). However, they also judge the accounting figures produced by the system as trustworthy (or not). Favorable use is thus important for the person impacted by the information and the evaluation as such. If the user of accounting information instead uses management accounting in a controlling or dominating way (i.e. low levels of favorable use), management accounting and its information will not be judged as trustworthy.

7.1.1 Conclusion

The literature in the area of performance evaluation and trust indicates that how individuals perceive, judge or otherwise have cognitive experiences and perceptions about accounting information, accounting processes or how management accounting is used are the most powerful determinants of why individuals assess other individuals or management accounting as trustworthy or not. High levels of relevance for accounting information, high levels of acceptability of accounting processes and high levels of the favorable use of management accounting and its information affect trust, as individuals are motivated to take action.

This motivational effort is underpinned by different theories, which assume different models of man and consequently different ways of motivating humans. However, they all assume that individuals can be motivated and divergent interests can be aligned.

When assuming goal conflict, bounded rationality and uncertainty, individuals will experience cognitive tension and incomplete control. Consequently, management accounting will motivate individuals to try to satisfy their needs, leading to trust. Here, the informal aspects of management accounting, i.e. the perceptions and cognitive interpretations of accounting information, accounting processes and how actors come to utilize accounting information in order to create trust (in the superior, employee, manager or accounting figures) are of main importance.[36]

7.1.2 Identification of shortcomings and weaknesses

Four shortcomings can be identified in the area. The first issue is related to an inconsistency between different ways of modeling trust in relation to management accounting information. The second is related to the unexplained exogenous given factor of management accounting information and therefore a lack of explanation why variations in management accounting information are visible in studies on Map A. The third issue is related to weak explanations for how and why trustworthiness and trust

[36] These assumptions and their implications might explain why Hartmann and Slapničar (2009) found no relationship between management accounting and trust in a certain context (compared with a highly uncertain context), where the individual had the freedom to set his or her own goals (i.e. individuals could easily overview important information). In such a situation, trust is more or less redundant, because there are relatively low levels of uncertainty and also bounded rationality is relatively less bounded. In a more uncertain environment, individuals are more dependent on others in order to overcome information constraints and thus trust becomes more important.

are established and developed. The final issue concerns specific trust conceptualizations and its implications. These four issues are discussed next.

The first issue of importance is the relationship between trust and management accounting information, which has been treated in two ways. These two ways imply a conflict between a dependent relationship between trust and accounting information and an independent one. Trust, on one hand, is the effect of management accounting information (e.g. Otley, 1978, link 3) and, on the other hand, trust and accounting information are independent of each other and have an interactional effect on another outcome factor (e.g. Ross, 1994, link 4). These two types of models make the result in the area inconsistent. In order to address this issue we need to choose and argue for one valid model or argue why and in what circumstances both models are valid.

Second, except for the model where trust is independent of accounting information (link 4), the literature in the area of performance evaluation and trust indicate that how individuals perceive, judge or otherwise have cognitive experiences and perceptions about accounting information are an important determinant of a subordinate being able to assess a superior as trustworthy or not. However, this says nothing about what causes the variation in attitudes and mental representations of management accounting information. An important but unanswered question in the area is thus what explains variations in the perceptions of accounting information and subsequent trust levels, i.e. what factors affect how accounting information is perceived by individuals. Strict cognitive models, combined with AT reasoning, put restrictions on what model type is theoretically appropriate. As visible here, a unidirectional model is theoretically justified, according to a psychological explanation and economic AT reasoning, where management accounting is the exogenous independent variable associated with the dependent variable trust. However, this model is restricted in the sense that it never explains the causes for variations in management accounting. Further, this model says nothing about the consequences of these factors.

Some argue that in order to reduce uncertainty we must start looking at factors that make actors draw on, and have confidence in, management accounting in the first place (cf. Johansson & Baldvinsdottir, 2003). We have insights into the functional or dysfunctional effects of management accounting and thus how trust ensues, but we lack an understanding of the causes of management accounting variations. We arguably need to explore and investigate factors that might account for the differences in the perceptions of management accounting and subsequent trust development. Related to the consequences of trust as such, Map B has some insights in this respect, where a strict unidirectional model is extended (see section 7.2, Map B). However, related to factors that can explain variations in management accounting perceptions, we arguably need to theorize further.

Third, the literature shows indirect, direct and interactional relationships between management accounting and trust. However, the theoretical explanations of why these associations have a particular shape and direction have the potential to be elaborated on further. We know, as discussed in Chapter 6, that cognitive and economically motivational factors are important in order for trust to ensue and that trust is needed to absorb the remaining uncertainty, but we need to explore deeper how and why trust is created and maintained. If we take the concept of trust as an uncertainty absorption mechanism seriously, we should aim to understand in more depth the processes of how and why trust is created and maintained. This implies that the processes of how, when and why a trustor judges a trustee, and in this respect individuals and management accounting systems, as trustworthy or not in a management accounting situation can be explained and understood better.

The explanation of why or how trustworthiness is assessed comes down to the act when a trustor performs a certain rational assessment about a trustee based on the perception of management accounting. However, we lack deeper explanations of how and why such assessments are carried out. The question is thus how such processes work. For example, when subordinates judge a superior as trustworthy within a management accounting context, what aspects are important? How do actors conclude about trustworthiness in relation to accounting information, accounting processes and accounting use? How does the overall feature of relevant information, acceptable processes and favorable use play a role here? What kinds of process mechanisms might be at work?

Cognitive mechanisms are surely important here, as many studies on Map A show, but we still have a weak understanding of how, when and in what ways such attributions and assessments of trustworthiness are carried out. The limitation is that strict cognitive explanations do not take into account the perspective that cognitive perceptions and assessments of trustworthiness are impacted by and formed in a social context. In other words, individuals' cognitions and subsequent behavior are not isolated from those of other people or from the impact people might have on each other when embedded in a social sphere. Further, in the studies on Map A, social aspects are not included in the models and explanations. However, social aspects could be added to the cognitive and economic explanations. Social aspects have the potential to account for more complex and nuanced trust explanations. Related to trust and its cognitive and agency theoretical conceptualizations, the following shortcomings are identified in studies on Map A, which leads us to the fourth issue of importance.

Studies on Map A focus on the subordinate's trust in the superior, which implies a one-sided conception of trust. The other part, i.e. the superior's trust level in the subordinate, is never taken into account. However, whether the superior has high or low trust in the subordinate may affect the trust level the subordinate in turn has in the superior. This means that both parties' trust in each other is meaningful to take into account if uncertainty needs to be absorbed or controlled for (Tomkins, 2001).

When interacting socially in a management accounting context, social values and norms might be shared and trust between parties might be the consequence of such interaction. Social interaction is thus functioning as a factor that aligns parties' divergent interests and makes individuals reach mental consistency. These arguments point out the usefulness of the integration of cognitive and social perspectives (cf. Covaleski et al., 2007).

A second consequence of this one-sidedness of trust and a lack of social explanations is that it hinders a more dynamic perspective. This one-sidedness of trust says nothing about how trust perceptions or mental states change over time in interactions between people. Over time, individuals' trust perceptions might change and this will affect their own and others' behavior. Consequently, it is likely that peoples' mental states and actions will affect each other and change over time. Further, management accounting and its subsequent features may also change over time in a dynamic fashion because of a change in trust (Tomkins, 2001). However, Map A does not describe this possible dynamic interaction between individuals' trust and management accounting dimensions. One unanswered question on Map A is thus how and why trust develops, emerges and changes over time in relation to management accounting features, which might change over time as well. Management accounting and trust might thus not only have functional outcomes (reducing dysfunctional side-effects); change aspects might also be a consequence in a dynamic perspective.

Summary and Conclusion

Four overall shortcomings have been identified in this area. First, the two typical ways of modeling management accounting information and trust have been identified. This model conflict makes the area look inconsistent and future research could arguably address this issue further. Second, we lack explanations for variations in the perceptions of management accounting information. Third, we arguably need to deepen our understanding of what mechanisms play a role when trustworthiness is assessed and established in a management accounting context. Fourth, a relational type of trust could be meaningful to consider if we want to deepen our understanding of how uncertainty is reduced in a relationship and explain how and why management accounting and trust function together in a dynamic perspective over time.

A shortcoming in cognitive psychological and agency theoretical reasoning is that these theories never take social factors into account. This implies that we have certain explanations at the cognitive and economic levels, but that these only give us insights into how individuals assess trustworthiness, i.e. how they form mental representations and attitudes towards something in their environments. Further, this implies that unidirectional models and rational trust are only visible in studies on Map A. The strength of this is that it indicates how and why trust ensues, but it can never explain how trust emerges and evolves. When individuals interact, their attitudes, cognitions and actions may affect each other. If trust is necessary for reducing uncertainty and information constraints, we must look deeper into what happens in social interactions when people affect each other, in relation to management accounting, but also take cognitive and economic perspectives into account.

7.2 Map B - Management accounting and trust in interorganizational relationships - a review

Figure 7.2 shows an aggregated model of the factors derived from studies on Map B. Generally, the area describes how organizations, by different means, can reach a state where interorganizational relationships are functional in certain respects. The main belief in studies on Map B is that the outcome of interorganizational relationships can be manageable and functional, even if relationships are filled with different interests, uncertainty and opportunistic players.

Further, what these studies have in common, as derived from the analysis in Chapter 6, is that highly relevant accounting information, acceptable and legitimate accounting processes, highly favorable use of accounting information and emotional/rational trust have functional consequences for organizational relationships.

As Figure 7.2 shows, 10 associations (links 1–7b) elaborate on how to reach a functional outcome. First, relationships between factors and their explanations are elaborated on (how and why). Second, types of relationships, potential conflicts and inconsistencies, gaps and main strengths and weaknesses in the area are discussed.

B.1 Seal & Vincent-Jones, 1997 B.2 Seal et al., 1999 B.3 Groot & Merchant, 2000 B.4 Langfield-Smith & Smith, 2003 B.5 Dekker, 2004	B.6 Håkansson & Lind, 2004 B.7 Coletti et al., 2005 B.8 Mouritsen & Thrane, 2006 B.9 Cuganesan, 2006 B.10 Emsley & Kidon, 2007	B.11 Free, 2007 B.12 Free, 2008 B.13 van der Meer-Kooistra & Scapens, 2008 B.14 Vélez et al., 2008 B.15 Langfield-Smith, 2008	B.16 Neumann, 2010 B.17 Cäker & Siverbo, 2011 B.18 Johansson & Siverbo, 2011 B.19 Jeacle & Carter, 2011

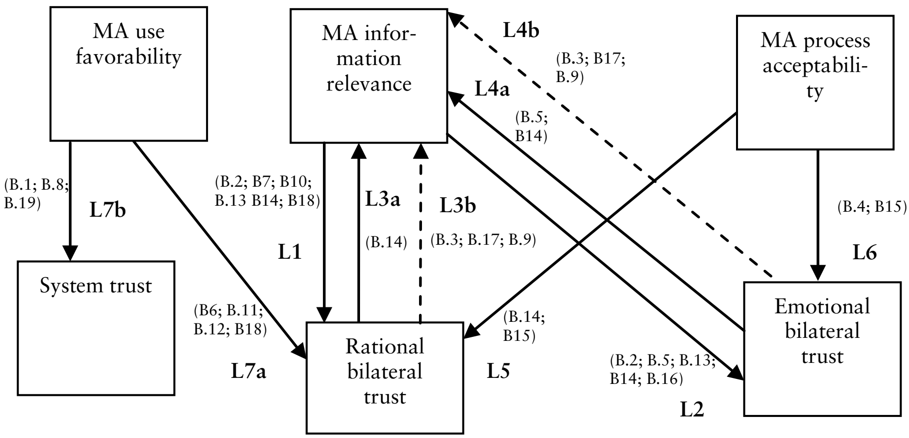


Figure 7.2 Management accounting and trust - Map B

Management accounting information associated with rational and emotional trust (link 1 and 2)

Link 1

As concluded in Chapter 6, highly relevant management accounting information plays a key role in dyadic relationships, such as when achievements are measured and evaluated and when parties need to learn about each other's financial and commercial objectives (Seal et al., 1999; Dekker, 2004; Coletti et al., 2005; Emsley & Kidon, 2007; van der Meer-Kooistra & Scapens, 2008; Neumann, 2010). This is consistent with the basic assumptions in both TCE/AT reasoning and organizational reasoning, i.e. control is needed in order to reduce uncertainty.

For example, highly relevant accounting information gives clues about a partner's trustworthiness. However, the framework of TCE/AT itself does not point out or explain how and why trustworthiness assessments are carried out in relation to management accounting information. As argued in Chapter 6, TCE/AT in a pure form never even answers the question how and why actors recognize and assess trustworthiness. Such explanations require extended reasoning and explanations. In studies on Map B, these extensions come from different directions, but they all point out the importance of accounting information in assessing trustworthiness. Owing to bounded rationality, management accounting is always incomplete, which means that trust needs to account for the remaining uncertainty. In this respect, trustworthiness assessments are dependent on accounting information in order for trust to ensue, as link 1 shows.

Highly relevant accounting information is usable and meaningful for both partners in an interorganizational relationship. Generally, the area shows that highly relevant management accounting information affects rational trust in a (uni)directional linear way (Seal et al., 1999; Coletti et al., 2005; Emsley & Kidon, 2007; van der Meer-Kooistra & Scapens, 2008; Vélez et al., 2008). This link consequently mirrors the typical raw model found in pure TCE/AT reasoning. The general explanation is that highly relevant accounting information is important for the ability to assess a partner as trustworthy, where trustworthiness implies rational trust in a trustee. However, any deeper elaboration of this explanation is not found in the area.

We can theorize that the rational trust type refers to a rational assessment of dyadic partners' performance capabilities or competencies to perform a task satisfactorily, i.e. a type of bilateral rational type of trust. Trustworthiness about a partner is thus assessed according to the dimension of capability and competence (cf. Seal et al., 1999; Dekker, 2004;

Langfield-Smith & Smith, 2003). From information and knowledge about a trustee's capability or competence, the trustor might after rational consideration judge the trustor to be trustworthy. Highly relevant accounting information gives clues about performance and competence, which are examples of the important dimensions a trustor uses when he or she assesses and judges another party. Thus, low levels of relevant accounting information will instead cause a negative effect on trust, because such characteristics imply that it is harder to assess a trustee as trustworthy. Indeed, most likely, the trustee will even be assessed as untrustworthy because the relevant information is not 'accessible'.

Link 2

In addition, a high degree of relevant management accounting information causes emotional trust in a (uni)directional linear way (Seal et al., 1999; van der Meer-Kooistra & Scapens, 2008; Neumann, 2010). Emotional trust enters the relationship when trustworthiness has been proven a certain amount of times. Trust emerges and develops over time through repeated interactions between a trustor and trustee (e.g. Dekker, 2004; Neumann, 2010). Further, through this process, trustworthiness is repeatedly assured. Consequently, emotions and affections enter into the relationships and strengthen the positive bonds between people, including an open commitment (e.g. Vélez et al., 2008). Emotional trust develops when partners have positive expectations about each other's abilities and benevolence, which they develop through highly relevant accounting information produced by management accounting (e.g. Neumann, 2010).

In the emotional trust conception, trust is treated as a bilateral factor that emerges and that has importance for two parties in a relationship (cf. Dekker, 2004; Vélez et al., 2009). We can thus conclude that a bilateral relational conception of trust implies that something happens between two parties, i.e. they assess each other's trustworthiness and form affective and emotional bonds.

Although studies on Map B do not elaborate on these issues, they point out the fact that socially embedded interactional processes play a role. In order to account for social embeddedness an economic isolated actor in pure TCE/AT reasoning is seen as influenced and motivated by other factors than purely economic ones, as discussed in Chapter 6. The purely economic model of individuals is relaxed. A social interactional perspective is thus taken into account in this association. This link is an extension of pure AT/TCE reasoning in that a social conception of trust is modeled.

Rational trust and emotional trust associated with management accounting information (link 3 and 4)

Link 3a proposes that a rational trust type affects management accounting information (Vélez et al., 2008). The explanation is that in a relationship when partners are seen as highly trustworthy, they are more inclined to disclose more and more highly relevant accounting information. Further, link 4 proposes that emotional trust has a feedback effect on management accounting information. The explanation is that when the relationship can be characterized by open commitment, strong bonds and shared values, parties will reveal more relevant information. The perceptions of management accounting information will thus turn out to be highly relevant (see Vélez et al., 2008; Dekker, 2004).

Links 3b and 4b show the opposite result, namely that high trust is negatively associated with highly relevant management accounting information (Groot & Merchant, 2000; Cuganesan, 2006; Cäker & Siverbo, 2011). This means that high trust is associated with low levels of accounting information. Specifically, high trust makes accounting information redundant and unnecessary. We thus have an inconsistency here between the explanation that trust facilitates management accounting (L3a & L3b) and the argument that it makes management accounting redundant (L4a & L4b).

Links 3 and 4 show a feedback effect of trust on accounting information. These links and explanations refer to socially embedded actors and their interactions. The question put forward on Map A concerning what kinds of factors might explain variations in the perceptions of management accounting information is partly solved here. Certain trust levels explain how and why management accounting information is utilized when parties find themselves embedded in a social relationship. However, this perspective implies an extension of assumptions where trust and management accounting are allowed to affect each other. As seen here, the effect of trust on management accounting information is a feedback effect, where information is drawn on in the first place in order to assess trustworthiness (link 1). However, these reasonings do not explain how and why trustworthiness assessments are carried out when the relationship is in its infancy or how and why parties come to utilize management accounting information in the first place. The question remains how parties come to trust each other in a management accounting context, i.e. how and why they draw on management accounting in the first place.

Links 3 and 4 thus deviate from the complementary model between management accounting and trust, seen in pure TCE/AT reasoning, and step towards a supplementary role, where trust feedback on accounting information and accounting information levels is changeable, not static and optimal.

Management accounting processes associated with rational trust/emotional trust (link 5 and 6)

Link 5

As concluded in Chapter 6, the second dimension of management accounting refers to management accounting processes and how parties in interorganizational dyads perceive them. The management accounting process encounters organizations in different interorganizational settings. The process is perceived in different ways, but this can be typified and aggregated to a general level where the overall character of the process, which drives the relation with other factors, is the level of the acceptability of these processes.

Acceptability, and its implicit meaning of legitimacy, is thus the most important determinant of the process to be functional from a trust perspective. If dyadic partners have high acceptance for the process, trust will develop (Langfield-Smith & Smith, 2003; Langfield-Smith, 2008; Vélez et al., 2008).

High levels of acceptability and legitimacy for management accounting processes lead to rational trust between dyadic partners (Langfield-Smith, 2008; Vélez et al., 2008). This association is a direct linear effect. The explanation given for this link is that accounting processes, seen as accepted and having gained high levels of legitimacy by both parties in a relationship, create (a legitimate) frame or arena in which interaction can take place. Further, through participation in this interaction, knowledge and information clues are obtained about a partner's trustworthiness, for example about their competencies and capabilities (Vélez et al., 2008). These studies do not elaborate on these issues in any depth but they point out the importance of social interaction, in which parties communicate and develop shared values and norms, which is favorable for trust. Then, this demands an extension of the basic assumptions in TCE/AT, where the social embeddedness of actors becomes important.

Link 6

Further, a high level of acceptability of management accounting processes leads to emotional trust between dyadic partners (Langfield-Smith & Smith, 2003; Langfield-Smith, 2008). The same theoretical reasoning is applicable here as in link 5. Highly acceptable management accounting processes create a (legitimate) frame in which interaction can take place.

Further, through this interaction, parties form emotional trust in each other. In this interaction, parties develop mutual interests and establish strong bonds (Langfield-Smith & Smith, 2003). Thus, links 5 and 6 show that management accounting processes play an important role besides management accounting information in reducing uncertainty.

Management accounting use associated with trust (link 7)

As concluded in Chapter 6, the third category of management accounting variables refers to 'management accounting use'. At an overall level, the feature related to management accounting use concerns the level of 'favorability' from the perspectives of those impacted by management accounting and its information and those that develop trust or not. The level of favorable use of management accounting/accounting information has important effects on whether the trustor will develop trust in the trustee or in management accounting. For example, favorable use will affect trust positively because of actors' capacities to influence others, while a low level of favorability leads to low levels of trust between parties (Håkansson & Lind, 2004; Free, 2007, 2008; Johansson & Siverbo, 2011) (link 7a) and in management accounting (Seal & Vincent-Jones, 1997; Mouritsen & Thrane, 2006; Jeacle & Carter, 2011) (link 7b). Low levels of favorability of use undermine trust, while high levels facilitate trust. When actors use management accounting and its information for opportunistic reasons, or exercise control when too much control is unnecessary, other actors will not find them to be trustworthy and trust will then be undermined.

This factor shows that management accounting is utilized by actors for purposeful reasons. The intentional and purposeful use of management accounting focuses on purposeful actions by individuals in organizations, where they utilize accounting information in different ways and for different objectives. By contrast, management accounting information and process characteristics (links 1–6) focus on how individuals perceive accounting information and processes. The factor of management accounting use is colored, as argued in Chapter 6, by a higher degree of volition than other management accounting factors. Information and process features focus on cognitive mental representations, while 'management accounting use' focuses explicitly on intentional actions by individuals. However, the consequences are similar from either perspective, i.e. trust. Free (2007, 2008), for example, shows how this factor has consequences for how organizations form attitudes and perceptions towards other organizations. Here, the main difference between this factor and other management accounting factors is that the actions of individuals are responsible for subsequent trust development and for how perceptions about information and processes are formed.

The shortcoming here is that the explanations for how and why management accounting use affects trust are sparse. Free (2008), for example, expresses the relationship in the following way:

> [...] accounting techniques such as [OBA] and joint performance management introduced amid 'trust talk' can act to undermine trust in buyer-supplier relations. (Free, 2008, p. 629)

Free does not elaborate on why and how management accounting use leads to low levels of trust. Further, Free's level of analysis is not individuals per se; it is organizations in the industry. Consequently, we do not receive an explanation at the individual level or at the interpersonal level of interaction between parties. Link 7 must thus be seen in light of this level of analysis and has the potential to be elaborated on further.

Johansson and Siverbo (2011) also show that 'management accounting use' affects trust: '[a]n excessive use of action and results control in a situation calling for a relationship pattern may lead to a crowding out effect' (p. 306). This means that a low level of favorable management accounting use, i.e. too much control, can influence actors' behavior in a negative way. For example, they will lose their intrinsic motivation and start to perform lower; as a consequence, trust will diminish. A low or high level of favorable management accounting use will consequently impact individuals' motivation. Håkansson and Lind (2004) also show that highly favorable management accounting use improves relations. Finally, Seal and Vincent-Jones (1997), Mouritsen and Thrane (2006) and Jeacle and Carter (2011) show that highly reflexive and thus favorable use creates trust and predictability in management accounting. The systemness of management accounting (technologies) creates a certain kind of confidence in its persistence.

7.2.1 Conclusion

The literature in this area indicates that organizations, owing to uncertainty problems of different kinds, need to utilize different control mechanisms. Here, management accounting and trust have roles to play. Owing to the assumption of bounded rationality, potential opportunistic behavior and coordination problems, trust and management accounting are needed to reduce uncertainty. These are the basic assumptions that studies on Map B depart from, but at the same time, also deviate from more or less.

If the assumption of bounded rationality is taken seriously, trust reduces the remaining uncertainty. In such cases, trustworthiness recognition and trust development need to be understood. However, on Map B, the explanations of why trust develops only indicate and never elaborate on this in any depth. They imply that trust and management accounting may be positively dependent on each other over time, i.e. in the process of gaining control, trust is created and sustained (cf. Vosselman & van der Meer-Kooistra, 2006, 2009). In an embedded social sphere, trust and management accounting thus have the potential to affect each other. What we also see is an over-social perspective, where trust alone might reduce uncertainty and where management accounting will be unnecessary and undermined by a high trust level.

7.2.2 Identification of strengths and weaknesses

This section discusses the differences in models, factors and results based on the discussion in Chapter 6. The strengths and weaknesses of different perspectives, manifested in different models and factors, are also elaborated on.

Two types of general models – strengths and weaknesses

Generally, management accounting and trust have been treated in a unidirectional way (Seal et al., 1999; Groot & Merchant, 2000; Langfield-Smith & Smith, 2003; Coletti et al., 2005; Emsley & Kidon, 2007; Free, 2008; Langfield-Smith, 2008; van der Meer-Kooistra & Scapens, 2008; Neumann, 2010; Johansson & Siverbo, 2011; Cäker & Siverbo, 2011) as well as in a bidirectional way (Dekker; 2004; Vélez et al., 2008). Most unidirectional studies have shown that management accounting information influences trust. A few studies have instead shown that trust influences management accounting information (Cuganesan, 2006; Groot & Merchant, 2000; Cäker & Siverbo, 2011). However, two studies have shown explicitly that management accounting and trust affect each other over time (see Dekker, 2004; Vélez et al., 2008).

As argued in Chapter 6, a unidirectional linear model assumes that trust is dependent on management accounting and that an optimal level of control is reached when management accounting causes a certain level of trust. Trust is thus assumed to complement the more formal part of control. Here, humans are assumed to be independent of a social context or a social relationship. They are driven mostly by upholding (their own) economic preferences, and they use management accounting in order to safeguard against other actors' potential opportunistic behaviors. In this model, trust is not an important concept to explain; it is only important in order to account for the remaining uncertainty because of bounded rationality. However, even if the aim is not to understand trust per se, trust has a function to play in this model, and because of that function it will inevitably direct attention to the question of how and why trustworthiness is assessed. However, the shortcoming with a model purely based on TCE/AT reasoning is that it never answers that question.

An extension from pure TCE/AT reasoning is needed to answer the question of how and why trustworthiness is assessed, and further how and why trust is developed and maintained. Studies have taken different routes, which have lead them to different but arguably compatible, answers.

First, we have studies that combine a cognitive psychological perspective with AT reasoning. These studies utilize AT reasoning as a basic premise and answer the question 'how to gain control' by pointing out the importance of accounting information and accounting processes to access trustworthiness. At the same time, management accounting is utilized as a formal control instrument, which accounts for the largest part of control (e.g. Coletti et al., 2005). This perspective focuses on cognitive psychological processes within individuals, but assumes an economic and bounded rational human actor, which foremost needs to safeguard against opportunistic behavior. An economic instrumental self-interested actor is thus combined with a psychological cognitive model of individuals. However, he or she still has his or her own well being as a primary goal to satisfy. The consequence of this perspective is that the trust type in focus is only a rational type of bilateral trust, which is needed in order to control for the remaining uncertainty. From this perspective, we learn that cognitive processes are important for trustworthiness assessments. A cognitive direction is thus fruitful in order to address the trustworthiness question, but it also has its own limits.

The problem is that strict TCE/AT reasoning, even when combined with cognitive psychological reasoning, places restrictions on the model type utilized. TCE/AT neither can nor has an interest in delving deeper into how and why trustworthiness assessments are carried out. Further, it cannot explore the consequences of trustworthiness per se. Here, we need extended TCE/AT reasoning. From such a perspective, another model type is visible. This model type shows how and why trust and management accounting affect each other in a bidirectional way. Studies that extend TCE/AT include social interaction and social embeddedness. Further, the model of individuals is extended to include extrinsic as well as intrinsic motivation. Further, a bilateral type of dynamic trust conception comes to the fore. In the processes of gaining control, there are consequences that static economic and psychological reasoning cannot account for. Parties find themselves in a social sphere, where trust will change. In addition, owing to a change in trust, management accounting (control) might shift its character.

By extending this perspective from a static view of control (as in TCE/AT) to a more relational interactive perspective, where trust and management accounting affect each other over time, we see other functions above control. For example, some studies point out the importance of coordination and planning (Dekker, 2004; van der Meer-Kooistra & Scapens, 2008). Other potential fruitful consequences might be a more flexible and dynamic management accounting system that follows changing requests from within the relationship (e.g. Vélez et al., 2008). Moreover, we might see a management accounting system that because of high trust levels is flexible but rigid at the same time, which accounts for control but at the same time gives enough freedom to account for learning, innovation and change (cf. van der Meer-Kooistra & Scapens, 2008; Huemer, 2004). A bidirectional model assumes that management accounting and trust over time are mutually reinforcing and that there is no optimal level of control.

What are the driving forces and factors behind a bidirectional relationship between trust and management accounting? The literature points out different factors and explanations, such as social embeddedness, social interaction and interactive cognitive processes. These aspects imply a broadening and relaxing of the basic model of individuals. An independent economic actor is seen as embedded in a social sphere, where the norms of reciprocity, cooperation and preferences for others' well being as well as one's own wealth are taken into account. Psychological constraints and limitations can be incorporated into social relationships, where an individual's cognition and creation of meaning have reciprocal effects on other individuals.

There is thus a potential here to integrate explanations in order to account for how trustworthiness is assessed and how and why trust is maintained and developed in relation to management accounting aspects over time. Related to the issue of integrating different perspectives is the issue of different trust conceptions, which will be discussed next.

Two typical trust types – strengths and weaknesses

When comparing different trust conceptions on Map A and Map B, Map B refers both to a momentary act of rational assessments of a trustee's trustworthiness and to a more emotional and relational character. This implies that the emotional and rational trust types are actually working side by side in the course of a relationship. Further, the emotional trust type implies that trust has emerged through repeated interactions between two committed parties. This means that studies on Map B have shown that except for being a momentary act of judging a trustee as trustworthy (i.e. rational trust), trust is also something that emerges and develops in a relationship between two parties through repeated interactions over time. (cf. Dekker, 2004; Vélez et al., 2008). We can thus conclude that a bilateral relational conception of trust implies that something happens between two parties, i.e. they assess each other's trustworthiness and form affective and emotional bonds.

The weakness of a pure social conception of trust (i.e. emotional trust) is that it can never explain how and why trustworthiness assessments are carried out. In order to account for such explanations, cognitive processes must be incorporated. In a bilateral emotional trust conception, the model of individuals is extended to include a more 'other regarding' behavior and relational or interactional dimensions. In a general model where both rational and emotional trust conceptions are combined, cognitive and economic explanations must thus be added to by a social interactional explanation. Related to these two trust conceptions, studies have been weak in explaining the relationship between these two trust types, probably because such explanations demand an integration of different perspectives in the same model. Cognitive, economic and social explanations need to be taken into consideration simultaneously.

What we need to gain more insights into is the relationship between rational and emotional trust. Are these two types of trust a direct additive linear effect of management accounting information and processes, as Vélez et al. (2008) show? Are they an effect of the management accounting process alone, which Langfield-Smith (2008) shows. Or, as Seal et al. (1999) discuss, are they an effect of accounting information alone, without interference by the management accounting process. The relationship between these two trust types and their antecedents is consequently unclear.

In addition, even if trust on Map B implies a more processual character compared with Map A, where trust has a more static character, we have scarce understanding of how trust develops in a relationship over time and in relation to other management accounting dimensions. A question that can also be explored and discussed further is what a dynamic relationship between different trust types might look like.

Consequences of a dynamic relationship between trust and management accounting

If modeling and theorizing a dynamic relationship between trust types, management accounting may be part of dynamic processes, as some studies have indicated (cf. Vélez et al., 2008). However, this dynamic between trust and management accounting has a potential to be elaborated on further. The question is how and why trust and management accounting are related to each other, and affect each other, over time. Studies indicate (see links 3 and 4) that trust makes it possible to disclose more accounting information. Is that the only possible effect? According to a pure control perspective, this might be favorable enough to reduce potential opportunistic behavior. However, if broadening the perspective, other effects might come to the fore. Trust, seen as a general uncertainty absorption mechanism, could imply that other functions and effects are visible. For example, when trust is high between parties, it might be possible to deviate from established routines and take more risks in a relationship, such as introducing changes and implementing new management accounting routines and practices.

Studies on Map C have focused on change and implementation aspects in contrast to Map A and Map B. Here, an alternative view on management accounting and trust is provided, which might account for the complementary view and understanding of management accounting and trust. Insights into implementation and change aspects are described in section (7.3).

Inconclusive relationships between trust and management accounting

Further, the consequence of high trust on management accounting is inconclusive. From the perspective that trust is established and is rather strong, some studies show that trust is positively related to management accounting information, i.e. high trust leads to highly relevant management accounting information (e.g. Vélez et al., 2008), while others show that trust is negatively related to management accounting information, i.e. high trust leads to low levels of relevant management accounting information (e.g. Cäker & Siverbo, 2011). These contradictory explanations could be meaningful to elaborate on and discuss further.

They both point out social embeddedness for trust, where interaction and communication among parties play a large role, but in this social process, there is a risk that management accounting and control structures are underdeveloped. The formal side of control takes a step back in favor of the informal side. The consequence is that individuals do not have predictable and stable structures and mechanisms to depend on, which in turn might be unfavorable for trust.

7.3 Map C – Management accounting implementation and change - a review

Overall, the area of management accounting implementation and change elaborates on two general phenomena, i.e. implementation processes and management accounting change. It is important to keep these two phenomena apart because they refer to different but related phenomenon. Further, with these two separate phenomena in mind, four aggregated management accounting categories are related to three overall trust types. As shown in Figure 7.3, the majority of arrows point out either the dimension of implementation or the dimension of change as consequence of the specific phenomenon studies aim to explain.

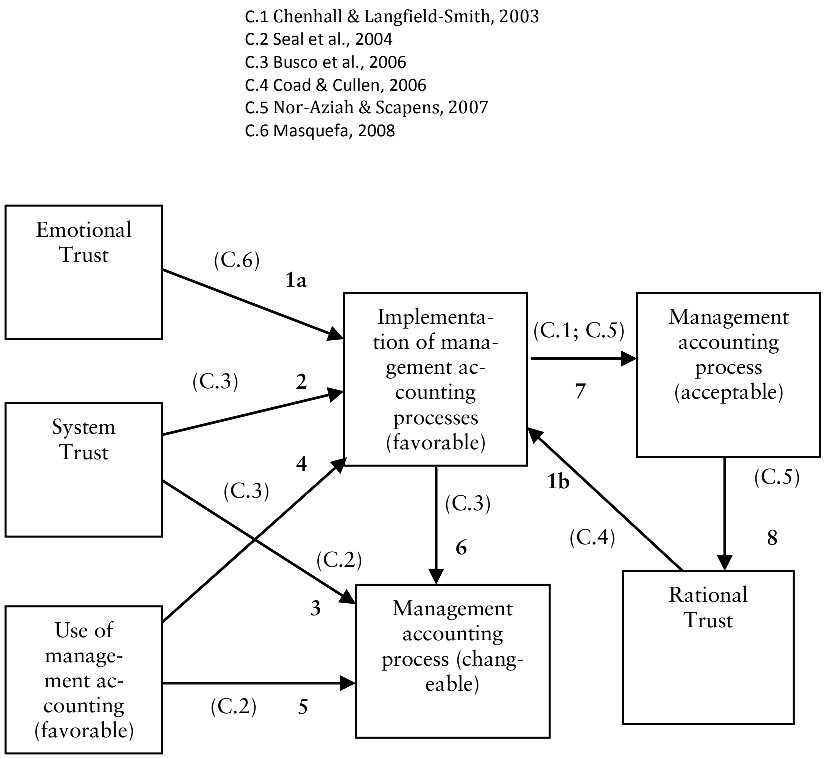


__Figure__ 7.3 Management accounting and trust - Map C

Generally, associations between variable models are unidirectional, i.e. linear, additive (Seal et al., 2004; Coad & Cullen, 2006; Masquefa, 2008) or intervening (Chenhall & Langfield-Smith, 2003; Nor-Aziah & Scapens, 2007; Busco et al., 2006). Four management accounting dimensions and three trust types are modeled. The following relationships are identified between management accounting and trust in the area of implementation and change. At aggregated and typified levels, the area shows eight associations (see Figure 7.3).

Link 1

Emotional trust causes highly favorable implementation processes, because trust, with a high affective content, enables a common agreement on the management accounting process, which reduces uncertainty and resistance (Masquefa, 2008) (Link 1a). Needed in this respect is continuous and frequent interaction among organizational members (Ibid). Further, Link 1b shows that rational trust causes a highly favorable implementation process (Coad & Cullen, 2006).

Here, trust is of a bilateral character and trust between individuals is in focus. Further, this is an important argument, where an implementation process is studied. In order for implementation processes to be highly favorable and successful, several people need to form trust in each other. This emotional type of trust between people implies that people come to share values and develop mutual interests. In such way, possible consensus around the implementation process is achieved and thus a higher level of satisfaction and favorability is reached concerning the implementation process.

Link 2

In addition, system trust leads to a highly favorable implementation of management accounting. A high level of system trust seems to be important for people to find the management accounting implementation process highly favorable. Representatives of management accounting have an important role as do predictable management accounting routines. Representatives have the power and impact to make people feel secure and help them manage the anxiety that the occurring change results in. Predictable management accounting routines also provide a sense of security, which is needed when the pressure to change is high (Busco et al., 2006).

It is important that individuals and organizations have a certain degree of trust in management accounting and its processes if a new system is implemented, i.e. when new management accounting routines and practices are introduced into the organization. If management accounting routines, processes and practices are not trusted, they will never be utilized and drawn on by people and organizations (see Seal et al., 2004; Busco et al., 2006).

Link 3

System trust also has a direct additive effect on management accounting change. This means that a high degree of system trust is associated with changed management accounting practices (Seal et al., 2004). System trust in (abstract) management accounting systems enables relationships distanced in time and space, but as management accounting is also used in a reflexive way, it will change management accounting as well. However, trust in management accounting implies that it plays a part in social practices and facilitates the underlying processes that eventually transform management accounting. Without trust in management accounting, social activities are not possible.

This change or transformation can be visible in individuals and/or organizations' management accounting habits and routines as well as in the content and character of management accounting practices. However, it is important that some type of transformation is visible or experienced, even though it might range from a micro level, where individuals change their accounting habits (Busco et al., 2006), to a more macro level, where changes in management accounting practices are visible across large industries (Seal et al., 2004).

Link 4 and 5

Highly favorable management accounting use has a positive relation with a favorable management accounting implementation process (Busco et al., 2006) (link 4) and a direct additive effect on management accounting change (Seal et al., 2004) (link 5). That is so in both cases because the high favorability of management accounting use implies a high ability and power to influence those individuals affected by management accounting. Actors use management accounting information intentionally in order to make an impact (cf. Seal et al., 2004; Busco et al., 2006). When modeling this category in a change context, i.e. when the main phenomenon of interest is management accounting change, the intentional and reflexive use of management accounting refers to the ability to influence the subsequent change favorably.

Link 6

Chapter 6 concluded that an important dimension of management accounting is the implementation process, namely how actors in the organization perceive and experience the very process of implementing management accounting activities and processes (Chenhall & Langfield-Smith, 2003; Nor-Aziah & Scapens, 2007; Masquefa, 2008; Busco et al., 2006). The predominant feature this category refers to is the level of favorability perceived by individuals and organizational members who are affected by and experiencing implementation processes. They experience the implementation process in a highly favorable way, which has specific consequences. There is a direct linear association between a highly favorable implementation process and a changed system. This means that a favorable implementation process is a determinant of successful management accounting change (Busco et al., 2006). That is so because the implementation process is perceived to have a high degree of favorability when actors are allowed to participate actively in the management accounting implementation process (Ibid). This causes them to reassess their existing ways of thinking, which implies that they rethink and change their ways of behaving and acting (related to management accounting processes) and thus accounting habits and routines will change. The change predominantly takes place within individuals' cognitions; further, their behavior must change if organizational routines are to be changed.

Link 7

Favorable management accounting implementation processes lead to favorable management accounting processes (Chenhall & Langfield-Smith, 2003; Nor-Aziah & Scapens, 2007). That is so because how attitudes and perceptions are formed around the management accounting implementation process influences how the management accounting process is perceived and experienced when executed in daily practices. A high level of favorable management accounting implementation processes leads to a high level of favorable management accounting processes.

Link 8

As concluded in Chapter 6, one management accounting category refers to the perceptions of and experiences towards the management accounting process when the system and its processes are already established routines. In such situations, individuals and organizational members affected by management accounting processes form mental attitudes towards them. Further, at an overall level, these attitudes are characterized by different levels of acceptability. This means that the attitudes and opinions individuals form regarding the management accounting process will predominantly focus on whether it is accepted by them or not. Implicitly, this means that whether or not the process has gained legitimacy in the eyes of the actors involved in management accounting processes is important for the process to be characterized as highly acceptable (Chenhall & Langfield-Smith, 2003; Nor-Aziah & Scapens, 2007).

Highly acceptable management accounting processes are associated with rational trust (Nor-Aziah & Scapens, 2007). That is so because a management accounting process that is perceived as highly acceptable by individuals and groups of individuals leads to trust in individuals who have played a role in the implementation of these activities and processes. If people, by contrast, find the processes to be highly unacceptable (see Nor-Aziah & Scapens, 2007), they will be more inclined to distrust those responsible for the implementation, because the management accounting process cause disadvantages for them.

The rational trust type associated with accounting processes implies a rational judgment of the level of trustworthiness another party possesses (in the eyes of a trustor). Further, it has been shown that a low level of a favorable process, from the perspective of those affected, will have a negative effect on their perceptions of others' trustworthiness (Nor-Aziah & Scapens, 2007).

7.3.1 Strengths and Weaknesses

Studies on Map C show that trust with a highly affective content (emotional trust) between individuals in the organization is important for management accounting implementation processes to be perceived as highly favorable, while a rational judgment of a trustee's high trustworthiness is the consequence of highly favorable management accounting implementation processes (rational trust). In addition, system trust and management accounting use are important for management accounting implementation processes to be highly favorable but also defined as 'changed'.

However, it is unclear how these three trust types, i.e. emotional, rational and system trust, are related to each other, to implementation processes and to the change process. In studies on Map C, different trust types have not yet been associated with each other. Further, our understanding of how the trust creation process starts in relation to the management accounting implementation and change process, and subsequently how trust develops over time in relation to management accounting implementation and change processes, is low.

Generally, studies on Map C do not aim to explain trust. In these studies, trust is predominantly the exogenous factor that has certain important consequences. Trust is foremost treated as a facilitator of change and implementation. Consequently, Map C provides few insights into how and why trust is built up and maintained. The question Map C does not answer is thus what factors might account for system trust and trust between individuals and organizations in the first place.

What is important to note is that individuals' cognitions and social interactions are of main concern when management accounting change and implementation aspects are in focus. Interestingly, but not surprisingly, the same trust dimensions are important in studies on Map A and Map B, although control aspects are in focus on Map B. Generally, trust is important for reducing uncertainty, even if the uncertainty is because of the introduction of a management accounting system, organizational change, or another uncertain situation.

8 A CRITICAL REVIEW OF THE CONSOLIDATED AREA

This chapter aims to bring together all the studies into one overall model. Generally, the chapter elaborates on the relationship between trust and management accounting at a consolidated level. Further, criticisms related to shortcomings characterizing the area are discussed, which builds on the review in Chapter 7. Derived from the discussion and criticisms, six main gaps in the area are identified. Finally, in Chapter 9 suggestions are proposed in order to suggest some ideas for how to deal with the shortcomings and gaps in the area.

A consolidation of all studies implies that we discuss and theorize about management accounting and trust at a general level. When comparing all three maps, we can conclude that some management accounting categories are comparable across maps. Management accounting processes and use are found in all three maps, while management accounting information is only found on Map A and Map B. The categories of implementation and change are only found on Map C.

By identifying what kinds of overall phenomena studies have elaborated on, we can distinguish three general types of management accounting phenomena. The first refers to when actors draw on and use management accounting normally for control and coordination between and within organizations. However, the common denominator here is that actors utilize management accounting information and processes in different situations. Further, through the overall features information and processes possess, actors form mental states about trustworthiness and thus trust emerges between people. That is so because when management accounting is drawn on in these types of activities and situations, the individuals and organizations involved in these activities are affected by dimensions of management accounting.

The second phenomenon is the actual process of implementing the system within and between organizations. Here, trust is both the antecedent and the outcome of the implementation process. The third phenomenon is the change and transformation of management accounting. These aspects have been elaborated on within organizations, but also between organizations.

8.1 Management accounting and trust within and between organizations

In this section, the relationship between management accounting and trust, within and between organizations, is described and elaborated on. Further, weaknesses and gaps are identified, and how to take the research area one step further is pointed out. Figure 8.1 shows all studies included in the review.

A Performance evaluation		**B Inter-organizational relationships**		**C Implementation/change**	
A.1 Otley, 1978 A.2 Ross, 1994 A.3 Magner et al., 1995 A.4 Lau & Buckland, 2001 A.5 Johansson & Baldvinsdottir, 2003	A.6 Gibbs et al., 2004 A.7 Lau & Sholihin, 2005 A.8 Lau & Tan, 2006 A.9 Lau et al., 2008 A. 10 Sholihin & Pike, 2009 A.11 Hartmann & Slapničar, 2009 A.12 Sholihin et al., 2011	B.1 Seal & Vincent-Jones, 1997 B.2 Seal et al., 1999 B.3 Groot & Merchant, 2000 B.4 Langfield-Smith & Smith, 2003 B.5 Dekker, 2004 B.6 Håkansson & Lind, 2004 B.7 Coletti et al., 2005 B.8 Mouritsen & Thrane, 2006 B.9 Cuganesan, 2006 B.10 Emsley & Kidon, 2007	B.11 Free, 2007 B.12 Free, 2008 B.13 van der Meer-Kooistra & Scapens, 2008 B.14 Vélez et al., 2008 B.15 Langfield-Smith, 2008 B.16 Neumann, 2010 B.17 Cäker & Siverbo, 2011 B.18 Johansson & Siverbo, 2011 B.19 Jeacle & Carter, 2011	C.1 Chenhall & Langfield-Smith, 2003 C.2 Seal et al., 2004 C.3 Busco et al., 2006	C.4 Coad & Cullen, 2006 C.5 Nor-Aziah & Scapens, 2007 C.6 Masquefa, 2008

Figure 8.1 *The extant literature – management accounting and trust*

Altogether, 21 associations (see arrows) are described and elaborated on. These associations are distinguished with a number or a number and letter (e.g. 2a) (Figure 8.2).

Links and associated studies

1 (A:4,7,11)	**4a** (B:14)	**6b** (C:2)
2a (A:3,4,7,8,9,10,11,12)	**4b** (B:3,9,17)	**7a** (C:6)
2b (B: 14,15; C:5)	**4c** (B:5,14)	**7b** (C:3)
2c (B: 4,15)	**4d** (B:3,9,17)	**7c** (C:3)
3a (A:1)	**5a** (A:5;B:1,8,19)	**8a** (C:1,5)
3b (B:2,7,10,13,14,18)	**5b** (B:6,11,12,18)	**8b** (C:3)
3c (B:2,5,13,14,16)	**6a** (C:2)	**9** (A:2)

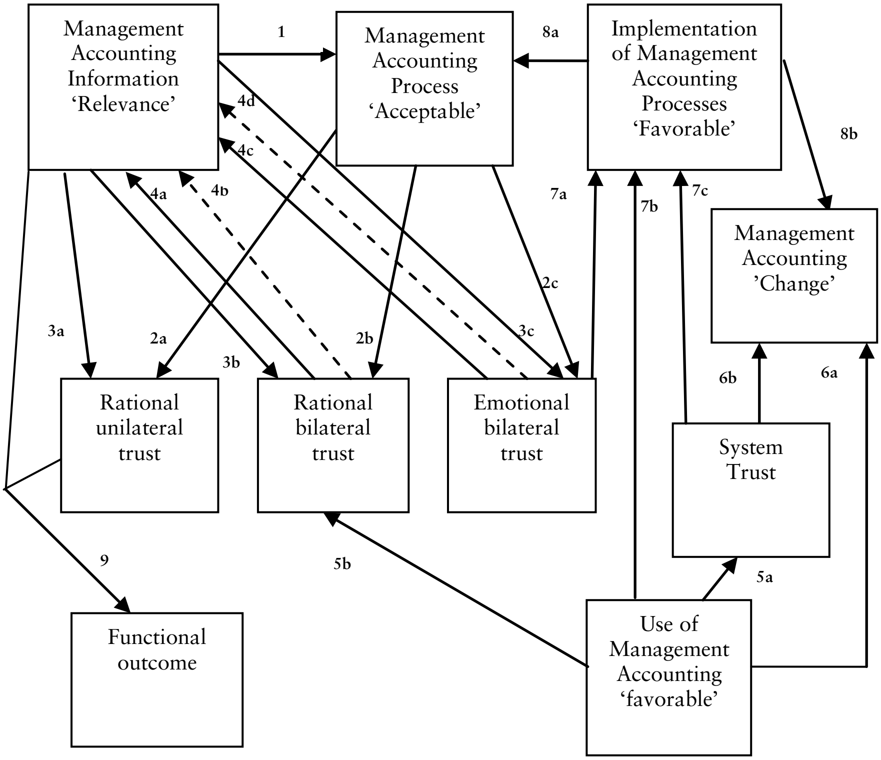


Figure 8.2 *Management accounting and trust – a consolidation of all three areas*

8.1.1 Management accounting information affects processes (link 1)

Management accounting information is a crucial determinant of how the management accounting process is perceived by actors (Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009) (link 1). Management accounting information affects accounting processes in a direct linear way. That is so because highly relevant management accounting information is related to the acceptance of management accounting processes. The general explanation is that when a trustor finds management accounting information highly relevant, he or she is more inclined to participate in and finally accept and find the management accounting process to be highly legitimate (cf. Lau & Buckland, 2001; Hartmann & Slapničar, 2009). This explanation goes hand in hand with the psychological explanation, where individuals' mental representations of management accounting information arouse and stimulate mental attitudes and behavior related to the whole process.

8.1.2 Management accounting processes affects trust (link 2a, 2b, 2c)

The management accounting process is an important driver of rational unilateral trust (link 2a) (Magner et al., 1995; Lau & Buckland, 2001; Lau & Sholihin, 2005; Lau & Tan, 2006; Lau et al., 2008; Sholihin & Pike, 2009; Hartmann & Slapničar, 2009; Sholihin et al., 2011), rational bilateral trust (link 2b) (Nor-Aziah & Scapens, 2007; Vélez et al., 2008; Langfield-Smith, 2008) and emotional bilateral trust (link 2c) (Langfield-Smith & Smith, 2003; Langfield-Smith, 2008). Accounting processes, with high levels of acceptability, are likely to lead to high levels of trust between those involved in the process and vice versa.

Generally, the underlying argument for the relationship between accounting processes and unilateral trust refers to explanations of why one party (a trustor) finds another party (a trustee) trustworthy. In such a case, a highly acceptable process makes a trustor attribute trustworthiness to the person that has the formal right to arrange the process. If the trustor finds the processes to be highly acceptable, he or she will attribute trustworthiness to the person that designed and enforced the process (Magner et al., 1995; Lau & Buckland, 2001; Lau & Sholihin, 2005; Lau & Tan, 2006; Lau et al., 2008; Sholihin & Pike, 2009; Hartmann & Slapničar, 2009). This link must be seen in light of the basic premise that the aim is to control and to motivate the individual in the organization. It is a subordinate's trust in a superior that is of interest because a subordinate's high trust is assumed to reduce unfavorable consequences for the organization.

In addition, the literature has indicated why management accounting processes lead to bilateral trust between actors. Here, the literature focuses on management accounting processes as an arena for interaction. Highly acceptable and legitimate processes create trust between actors, based on the reasoning that highly acceptable processes, and implicitly highly legitimate processes, give room for interaction, and thus actors have a platform to assess and reassess each other as trustworthy, i.e. rational trust (Langfield-Smith 2008; Vélez et al., 2008). However, they can also develop affective bonds, i.e. emotional trust (Langfield-Smith & Smith, 2003; Langfield-Smith, 2008). Bilateral trust is important from a cooperation perspective when parties need to achieve, perform together and cooperate. In such situations, they need to develop trust in each other. Further, in order for cooperation to be functional, trust between parties facilitates a control function as well as a coordinating function.

8.1.3 Management accounting information affects trust (link 3a, 3b, 3c)

Management accounting information is also an important determinant of trust. Highly relevant management accounting information affects rational unilateral trust (link 3a), rational bilateral trust (link 3b) and emotional bilateral trust (link 3c) in a direct linear way (Otley, 1978; Seal et al., 1999; Coletti et al., 2005; Emsley & Kidon, 2006; Seal et al., 1999; Dekker, 2004; van der Meer-Kooistra & Scapens, 2008; Vélez et al., 2009; Neumann, 2010).

In links 3a and 3b, pure TCE/AT reasoning and the assumption of a unidirectional relationship between management accounting information and trust is mirrored, implying that accounting information and rational trust account for control. Link 3c point outs a more social conception of trust, where emotional trust is an effect of information. Further, the function of trust itself might arguably be more than control, because from a social perspective, social action can have other gains than strict control.

The general explanation for the direct effect of information on rational trust is related to the reasoning that highly relevant accounting information is important for assessing a partner as trustworthy, where trustworthiness implies rational trust in a trustee. From information and knowledge about a trustee, the trustor can judge the trustor as trustworthy. Accounting information, perceived as highly relevant, give information clues about performance, competencies, and abilities. Consequently, a trustor needs highly relevant accounting information to make (cognitive rational) judgments about trustworthiness (Otley, 1978; Seal et al., 1999; Coletti et al., 2005; Emsley & Kidon, 2006; van der Meer-Kooistra & Scapens, 2008; Vélez et al., 2008). Low levels of relevant accounting information instead cause a negative effect on trust, because such characteristics imply that the trustee will not be able to judge the trustee as trustworthy. Further, the trustee will even be assessed as untrustworthy because the relevant information is lacking. Low levels of relevant accounting information imply that accounting information is not understandable or not accessible, which prevents judgments of trustworthiness and breeds distrust (cf. Sztompka, 1999).

The importance of information in relation to trust is thus mirrored here. Even though there is a basic assumption about information incompleteness, information is nevertheless utilized when assessing and judging a trustee's trustworthiness. In that respect, high levels of relevant management accounting information is a signal of trustworthiness. In such situations, subsequent trust levels absorb the remaining uncertainty and complement the incomplete control and coordination problem. Accounting information thus functions as a base for trust creation and reduces uncertainty, creating flexibility and freedom to act in the relationship (cf. Dekker, 2004; van der Meer-Kooistra & Scapens, 2008).

Accounting information is also important to form an emotional type of trust, i.e. emotional and affective bonds between parties. A high level of relevant management accounting information causes emotional and affective bonds between people. Emotional trust enters the relationship and develops when partners have positive expectations about each other and when trustworthiness has been proven based on accounting information (Seal et al., 1999; Dekker, 2004; van der Meer-Kooistra & Scapens, 2008; Vélez et al., 2008; Neumann, 2010) (link 3c).

This link and its factors thus deviate from a pure TCE/AT perspective as well as a pure psychological perspective. Here, emotional trust points out social interaction as a basis for trust development rather than only cognitive experiences or a rational economic explanation that complements the incomplete contract, as in pure TCE/AT reasoning. As argued in Chapter 7, the model of individuals is extended here to include a more 'other regarding' behavior, which implies a perspective where parties form and create trust in social interactions. This means that trust is explained and understood as a social and interactional phenomenon, besides purely cognitive and economic reasoning.

8.1.4 Criticisms

Therefore, three main weaknesses need to be addressed. First, we can identify weaknesses in different explanations of trust in relation to management accounting. Second, we can identify a lack of associations between trust types and the consequences of such weaknesses. Third, we can identify a lack of factors explaining variations in management accounting information.

Limitations in trust explanations

Three perspectives model trust in association with management accounting (links 1–3): pure TCE/AT reasoning, psychological reasoning and a social perspective. Even though no studies draw on any of these perspectives alone, they are pure forms that have their own strengths and weaknesses that need to be addressed.

In pure AT/TCE reasoning, how and why trustworthiness assessments are carried out and how trust is created in a management accounting context are never elaborated on. Trust is needed in the model because of incomplete control and contracting (links 3a and 3b). The model of man implies an economic human who strives for economic wealth.

By contrast, a pure social conception and model of management accounting and trust is likewise not interested in explaining trustworthiness (see links 2c and 3c). Because the focus is on social interaction, a more social conception of trust is visible, i.e. emotional trust. An 'other regarding' man is visible here who besides consideration for his or her own wealth also considers others' wealth as important. The focus from a social perspective is how norms and values come to be shared in a relationship and not an individual's cognition and motivation per se.

When it comes to explaining how and why individuals assess trustworthiness, psychological cognitive reasoning has started to answer this question. For example, Coletti et al. (2005) and Hartmann and Slapničar (2009) discuss that individuals utilize management accounting information and processes in order to assess trustworthiness. Coletti et al. (2005) point out highly accessible and visible information characteristics in this respect. Further, Hartmann and Slapničar (2009) show that highly relevant information is needed for the prevalence of trustworthiness assesments. Highly relevant accounting information is a key feature in this respect. Psychological reasoning starts from the assumption of a homeostatic man who strives for mental balance, but most of the time is in a form of mental inconsistency. His goals are not always in line with the goals of the organization, but the goals themselves are important for individuals when they try to reach mental balance.

The basic assumptions of bounded rationality and goal divergence are strong in all these explanations. Information constraints and incompleteness are consequently present, and an aim for unity and balance is visible. Even though the assumption of bounded rationality is strong, implying that information is incomplete, we can here imagine and anticipate how purposeful 'creative' human cognition and action overcomes this constraint. Individuals nevertheless have the ability to utilize management accounting information and processes in order to assess trustworthiness and subsequently develop trust. Cognitive processes are involved here, which we arguably need to understand better. Simon (1957) argues that individuals cannot overview all possible relevant information and have not the wits to maximize; instead, they are content with only satisfying. Further, to absorb uncertainty, purposeful humans, who suffer from mental inconsistencies and unfulfilled needs, must find ways to reach mental balance and meet their needs.

Trust types – possible relationship

Studies have focused on the direct linear association between management accounting information/processes and different trust types (links 2 and 3). However, the literature shows no direct associations between different trust types. It identifies that different trust types are important in relation to management accounting processes, but the association *between* different trust types is lacking in the analysis. It could be argued that there are specific direct relationships between rational and emotional trust, which are not taken into account in studies here, but arguably could be meaningful to do. For example, one argument indicates that rational trust establishes first and emotional trust emerges later, because of the need for trustworthiness to be assured before deeper levels of trust can be established. After certain (re)assessments of trustworthiness, emotional trust is thus able to be established (McAllister, 1995). Through repeated interactions, parties have gained enough information to assure trustworthiness several times. However, this requires a certain amount of time, and in a management accounting context it is unclear when, how and why this happens. This important theoretical question is meaningful to investigate and discuss further.

Further, this argument implicitly assumes that a cognitive and a social perspective are taken into consideration simultaneously. A cognitive perspective considers individuals' mental attitudes and representations, i.e. trustworthiness attitudes, while a social perspective considers how bilateral trust develops between two parties in a relationship. From this perspective, it is likely that if a trustor develops trust in a trustee, the subsequent behavior and actions of the trustor will affect how the trustee feels and behaves towards the trustor, i.e. parties will respond to each other's behavior in a reciprocal fashion.[37] The cognitive attitudes individuals form towards each other, and their subsequent behaviour affect trust development between parties. Thus, even though the focus is on preventing dysfunctional behavior, we can gain an understanding of how trust is created by exploring bilateral trust.

[37] This technically means that the trustee will also become a trustor and vice versa.

This perspective does not go against strict TCE/AT reasoning, even if such a perspective is often interested in the level of trust agents have in a principal (a unilateral trust type) when preventing dysfunctional behavior. To control agents, the level of trust a principal has in an agent will probably feedback at the level of trust an agent will develop in the principal, implying that a bilateral conception of trust is meaningful to study.

A consequence of a conception of trust that includes more changing and dynamic features is that management accounting features and functions might change as well. A change in trust level might feedback on management accounting features and, subsequently, the overall utilization of management accounting might change. For example, a high mutual trust relationship might lead parties to develop, or be more inclined to utilize and change, management accounting information and processes (see link 4). That might be so because the higher risk taking behavior parties engage in when they are in a high trust environment, the more inclined they will be to reveal more relevant accounting information to each other and participate more in accounting processes, which legitimates accounting processes even more. Consequently, the features or functions of management accounting might change as well (cf. Tomkins, 2001). At the same time, when parties utilize management accounting more, parties will be more visible to each other, and this might reinforce the spiral and dynamic of trust.

However, until now we know little about such reciprocal and dynamic processes, where trust develops, emerges and changes over time based on and in relation to management accounting. There is thus a gap in the literature here, which may be fruitful to bridge. The overall question raised here is how different trust types are related to each other in a dynamic fashion. Further, how can a dynamic trust conception be associated with different management accounting dimensions?

Consequently, there seems to be more to understand about how trust develops based on and in relation to management accounting. A direct linear association between management accounting and trust only indicates that management accounting affects trust, as the literature has shown (links 2 and 3). However, we do not understand how different trust types are related to each other over time, i.e. how trust establishes, develops and evolves. Further, what does the relationship between rational trust and emotional bilateral trust look like and how does trust shift between these types in relation to management accounting dimensions and features?

Lack of factors explaining management accounting information

As argued in Chapter 7, we have a weak understanding for what factors that might explain variations in management accounting information. Although management accounting information may be a key feature in explaining trust, the association between management accounting information and trust does not give insights into what factors explain variations in the perceptions of accounting information and subsequent trust levels. The question is what kinds of factors affect how accounting information is perceived by individuals.

Cognitive and economic reasoning place restrictions on what model type is theoretically appropriate. As is visible here, management accounting is the exogenous independent variable associated with the dependent variable trust. However, this does not explain the antecedents of management accounting information. Thus, it is meaningful to investigate factors that might account for variations in the perceptions of management accounting information and mental representations. As argued in Chapter 7, factors that can account for how such perceptions form are important to gain insights into. The question is how individuals draw on and utilize accounting information in the first place, i.e. what makes people confident enough to be inclined to form (favorable) attitudes and perceptions towards management accounting information?

8.1.5 Trust affects management accounting information (link 4)

Link 4a shows that rational trust between people and organizations has a positive effect on management accounting information. The explanation is that in a relationship when partners have judged each other as trustworthy, they are more inclined to disclose highly relevant accountant information (Vélez et al., 2008) (link 4a). Further, emotional trust, when established, also has a positive effect on management accounting information (Vélez et al., 2008; Dekker, 2004) (link 4c). The explanation is that when the relationship is characterized by open commitment, strong bonds and shared values, parties will voluntarily reveal more and more relevant information. The perceptions of management accounting information will consequently turn out to be highly relevant.

The opposite result is also visible. Links 4b and 4d show that high levels of trust are negatively related to management accounting information relevancy (Groot & Merchant, 2000; Cuganesan, 2006; Cäker & Siverbo, 2011). This means that high trust makes management accounting information redundant and unnecessary. Low levels of management accounting information are consequently an effect of a social relationship that is characterized by too much trust, which makes formal control and management accounting mechanisms underdeveloped. From this perspective, trust accounts for control, which makes it the only uncertainty reduction mechanism needed.

Link 4a–4d deviate from pure AT/TCE reasoning. In pure TCE/AT-reasoning the effect of trust on management accounting information is never explored, because control is already optimal in the unidirectional model (where accounting information affects trust; link 3). Consequently, link 4a–4d indicate that social embeddedness and high trust levels per se make individuals utilize and draw on management accounting in additional ways and for reasons other than strict control.

Link 4 also shows that management accounting not only affects trust (as link 3 shows), but that trust also feedbacks on management accounting. Because in the process of gaining control trust will change and develop, the utilization of management accounting will change and develop as well (cf. Vosselman & van der Meer-Kooistra, 2006). A second type of basic model is thus indicated here, i.e. a bidirectional relationship between management accounting information and trust.

Criticisms

The literature indicates that different trust types affect management accounting information. However, as described previously, we have a weak understanding of how they are related to each other. Until now, the literature has shown that two trust types affect information in an additive linear nature, as links 4a and 4b specify. This implies that these trust types are independent of each other. However, if we argue that rational trust is related to emotional trust in a way that it needs to be installed before deeper levels of trust can be developed, we need to reconsider the relationship between trust and management accounting. We also need to incorporate cognitive and social explanations in the same model.

A consequence of this reconsideration is that we can argue that when rational trust has been established (based on accounting information), it feedbacks on accounting information, which in turn affects emotional trust, as link 2c implies. We thus see a bidirectional cyclic recursive model between management accounting information and trust.

If these arguments hold true, management accounting and trust can generally be understood and related to each other in a bidirectional dynamic way over time. Specifically, a relationship between two parties starts with them assessing each other as trustworthy, and after a certain amount of time, emotional trust enters the relationship. From such a perspective, management accounting 'interferes' in the dynamic and changing nature of trust. From a dynamic perspective, however, the relationship between trust and management accounting is more complex than a strict unidirectional model implies, as suggested by pure TCE/AT reasoning (cf. Vosselman & van der Meer-Kooistra, 2006). A social perspective also embraces a more dynamic perspective in that cognitive processes are also needed to account for mechanisms that explain individual (cognitive and economic) motivation and behavior.

However, we should also caution against too much focus on trust. If trust between parties becomes the only way to reduce uncertainty, management accounting can be deemed to be unnecessary and underdeveloped. This will have consequences and risks that need to be considered. The platform (i.e. management accounting) needed for trust to develop might be lost (see links 4b and 4d).

If we can gain a better understanding of the possible relationship between trust types, and the changing and dynamic character of trust in this context, we might also be able to explain what effect different trust types have on management accounting information as well as how and why trust affects management accounting.

8.1.6 Management accounting use affects trust (link 5a & 5b)

The literature shows that the deliberate and favorable use of the management accounting system is associated in a direct linear way with trust in the system (Seal & Vincent-Jones, 1997; Johansson & Baldvinsdottir, 2003; Mouritsen & Thrane, 2006; Jeacle & Carter, 2011) (link 5a). It also shows that the deliberate and favorable use of the management accounting system is related to trust between parties (Håkansson & Lind, 2004; Free, 2007; Johansson & Siverbo, 2011) (link 5b).

That is so because a high level of favorable use implies that the management accounting system and its information benefit the affected actors. It is thus favorable in the eyes of the individual, group or organization affected by the information in one or another way. This in turn leads to trust in management accounting (link 5a) or trust between organizations (link 5b). When actors, by contrast, use accounting information for their own (hidden) agendas, i.e. for opportunistic reasons, trust will be undermined. For example, if the user of accounting information uses it in a controlling or dominating way (i.e. low levels of favorability), he or she will not be judged as trustworthy. In such situations, the information/system disadvantage those affected, as Johansson and Baldvinsdottir (2003) show.

Criticisms

Thus, the factor 'management accounting use' affects individuals' trust in management accounting (link 5a) and is associated with organizational trust in each other (link 5b). This explains 'system trust' at the individual cognitive level and trust between parties at a more macro level. The intentional use of management accounting is thus shown to have consequences for how individuals judge management accounting and its information, but also how different organizations assess each other due to the macro structures involved. Moreover, 'system trust' has no direct relationship with management accounting information and processes or other trust types. Further, 'management accounting use' has no direct relationships with management accounting processes and information (except implementation and change aspects). The factors of management accounting use and system trust are thus not directly incorporated into other associations.

However, both 'management accounting use' and 'system trust' might be able to explain how and why management accounting may (or may not) lead to trust between individuals and organizations. If individuals and organizations do not trust management accounting in the first place, they may not be able to rely on such information and processes in their relationships with others (cf. Sztompka, 1999; Nooteboom, 2002; Möllering, 2006). Thus, if actors do not rely on management accounting information and processes in the first place, management accounting will not be utilized as a basis for trust between people and organizations, or it might even breed distrust between them. How and why the dimensions of management accounting use and system trust are related to other dimensions of management accounting thus has important consequences for how and why trust will develop (or not).

There is a weakness in the literature here. It indicates that 'management accounting use' affects system trust and rational trust between actors, but we have a weak understanding of how these factors are related to other dimensions of management accounting (i.e. information and process characteristics). Specifically, we have a weak understanding of how system trust is related to trust between people and organizations (cf. Vélez et al., 2008; Baldvinsdottir et al., 2011). If we can examine these factors and associations, we can understand better how and why trust between people and organizations is formed. The explanation for the association between 'management accounting use' and 'system trust' indicates that individual volition has a large role to play and that individual cognitive processes are important. Cognitive and social perspectives thus need to be taken into account.

As discussed earlier, an important but unanswered question in the area is related to what kinds of factors might explain variations in the cognitive perceptions of accounting information and subsequent trust levels. Strict cognitive models, combined with AT or TCE reasoning, place restrictions on what model type is theoretically appropriate. However, by extending the perspective and assumptions, we are able to focus on factors that might account for the antecedents of the mental representations of management accounting. A possible answer to the question raised concerning the lack of antecedents of management accounting information is to conceptualize 'system trust' and 'management accounting use' as factors that might explain variations in management accounting information. Whether individuals form mental representations of management accounting information might be a consequence of whether they have confidence in management accounting in the first place.

There is thus the potential to model management accounting use and system trust as explanatory factors for management accounting information and to add factors and links to each other. This reasoning will be elaborated on in Chapter 9.

8.1.7 Management accounting use and system trust associated with management accounting change (links 6a & 6b)

Links 6a and 6b show that management accounting use and system trust have a direct effect on management accounting change. These associations suggest that highly favorable use, but also high trust in management accounting, is related to changed management accounting.

Criticism

The explanation the literature gives for these associations concerns a higher level of analysis (Seal et al., 2004). In large industries, management accounting practices might undergo constant transformation because of actors' use of management accounting in certain ways. A possibility is thus to investigate if these associations between system trust, management accounting use and changed management accounting are also relevant at a lower level of analysis, for example within organizations. The intentional use of management accounting and high trust in management accounting might change management accounting eventually when utilized in day-to-day practices. However, logically the specific management accounting change potentially then observed could be related to, and might include, changing features of accounting information and/or accounting processes. Until now, we have a scant understanding of such dynamic changes. There is thus a gap in the literature concerning the impact trust features and information and process features have on changeable and dynamic management accounting features.

Another criticism related to this link is that in order for management accounting to eventually change, more aspects and events need to be taken into account. As argued in Luft and Shields (2003), with references to Abbot (1992), the fact that 'management accounting use' and 'system trust' affect 'management accounting change' is a quick way of summarizing many aspects and events that account for a changed management accounting system. Link 6 might thus be composed of many other aspects and features that address change in a deeper and more nuanced way.

8.1.8 Additive effects on favorable implementation as an outcome factor (link 7a & 7b)

Link 7a – emotional trust associated with the implementation process

Emotional trust causes highly favorable implementation processes. Trust with a high affective content enables a common agreement on the management accounting process that reduces uncertainty and resistance (Masquefa, 2008). Thus, continuous and frequent interaction among organizational members is necessary (Ibid).

Here, trust is of a bilateral character, and trust between individuals is in focus. This is an important argument, where an implementation process of management accounting is studied. In order for implementation processes to be highly favorable and successful, several people need to form strong affective and emotional bonds with each other. This emotional type of trust between people implies that people come to share values and develop mutual interests. In such way, possible consensus around the management accounting implementation process is achieved and thus a higher level of satisfaction and favorability is reached concerning the implementation process.

Link 7b – Management accounting use associated with the implementation process

The highly favorable use of management accounting has a positive relation with a favorable management accounting implementation process (Busco et al., 2006). The high favorability of management accounting use implies a high ability and power to influence individuals affected by management accounting. Actors use management accounting information intentionally to make an impact (Busco et al., 2006). The intentional and reflexive use of management accounting thus refers to management accounting's ability to influence the implementation process.

Link 7c – system trust associated with the implementation process

In addition, system trust is associated with to the highly favorable and successful implementation of management accounting. A high level of system trust is important for people to find the management accounting implementation process highly favorable. Here, it seems that representatives of management accounting have an important role as do predictable accounting routines. Representatives have the power and impact to make people feel secure and manage the anxiety that the occurring implementation change results in. Predictable management accounting routines also provide a sense of security that is needed when the pressure to change is high (Busco et al., 2006). If routines, processes and practices are not trusted, they will never be utilized and drawn on by people and organizations (see Seal et al., 2004; Busco et al., 2006).

8.1.9 Link 8 – The implementation process and its outcomes

Link 8a

How actors in the organization perceive and experience the process of implementing management accounting activities and processes is associated with an acceptance for the management accounting process (Chenhall & Langfield-Smith, 2003; Nor-Aziah & Scapens, 2007). Consequently, favorable management accounting implementation processes lead to favorable management accounting processes (Chenhall & Langfield-Smith, 2003; Nor-Aziah & Scapens, 2007). That is so because how attitudes and perceptions are formed around the implementation process influences how the management accounting process is perceived and experienced when such processes are carried out in daily practices. A high level of favorable management accounting implementation process leads to a high level of favorable management accounting process.

Link 8b

There is also a direct linear association between a highly favorable implementation process and a changed system. This means that a favorable implementation process is a determinant of successful management accounting change (Busco et al., 2006). That is so because the implementation process is perceived as having a high degree of favorability when actors are allowed to participate actively in the management accounting implementation process. This causes them to reassess existing ways of thinking, which implies that that they will rethink and change their ways of behaving and acting (related to management accounting processes), and thus that accounting habits and routines will change. The change predominantly takes place within individuals' cognition; however, their behavior must change if organizational routines are to change.

Criticisms

Taken together, highly socially embedded trust relations, but also high levels of trust in management accounting and the highly favorable use of management accounting, cause favorable management accounting implementation processes. The weakness here is that these studies only show an additive relationship between different factors and implementation processes, although there could be relationships between these independent factors. For example, Johansson and Baldvinsdottir (2003) show that management accounting use is associated with system trust in a direct linear way, which means that system trust is dependent on management accounting use. This implies that management accounting use may account for variations in system trust, which may explain highly favorable implementation processes.

8.1.10 Link 9 – interactional effect

Link 9 shows an interactional effect between management accounting information and trust. Highly relevant accounting information and high trust have a functional outcome.

Criticisms

The way trust is modeled here in relation to management accounting information conflicts with the links where accounting information is associated with rational trust in a direct way, and thus is dependent on accounting information. Whether trust is dependent on or independent of accounting information is thus not settled in the literature.

8.2 A summary and conclusion of weaknesses and identification of gaps

Based on the discussion and main criticisms in Section 8.1, six gaps are identified. These gaps refer to the relationships between factors and related explanations that may be fruitful to elaborate on and investigate further.

8.2.1 Gap 1- Management accounting use and potential associations

The first gap is related to an overall feature of management accounting that until now has been scantily related to other factors in the literature, i.e. 'management accounting use'. The literature has identified this factor as a determinant of system trust and trust between actors. The factor affects system trust and trust between actors in a direct linear way. We can thus assume that it is an important cause of trust. However, we have a weak understanding of how this factor is related to other features of management accounting, i.e. to management accounting information features and process features. These factors have thus far not been integrated.

Management accounting use concerns the intentions and actions by actors with which individual reactions and perceptions could be associated, because, depending on how a dyadic partner or superior manager uses management accounting, certain responses and reactions might be visible. Further, when actors use management accounting in a highly favorable and confidence inspiring way, another actor will most likely perceive management accounting information or processes as highly trustworthy.

If we can explain and understand how management accounting use might be associated with other management accounting dimensions, we can understand how and why this factor is associated with different trust types. For example, does management accounting use affect both rational trust and system trust in an additive direct linear fashion as the literature has indicated? Such an additive relationship implicitly assumes that system trust and trust between people are independent of each other. However, this assumption is contrary to the argument that system trust must be in place before management accounting can function as a base for trust between people (cf. Sztompka, 1999). According to this argument, trust between people is dependent on trust in management accounting. Thus, we need to improve our understanding of the relationship between management accounting use and trust between people and trust in management accounting and other management accounting dimensions. Gap 1 is thus expressed in the following question:

- How is 'management accounting use' related to trust and management accounting information/processes?

8.2.2 Gap 2 – Potential associations between trust in management accounting and trust between people

The second gap concerns how trust between individuals and organizations is related to trust in management accounting, i.e. system trust. This is an important gap to fill, because if actors do not trust management accounting in the first place, then they cannot rely on management accounting to develop trust in each other. Consequently, inherent in this gap is the weak understanding of how trust in management accounting is related to the other management accounting dimensions on which actors draw as a base for trust between each other.

The factors of trust in management accounting and trust between actors are thus assumed to be linked to each other. However, until now we have a weak understanding of this association. Consequently, the following question is raised:

- How is trust in management accounting related to trust between people and organizations in a management accounting context and implicitly to management accounting information and processes?

8.2.3 Gap 3 – Potential explanations for management accounting information

Gap 3 concerns the factors that might explain variations in management accounting information and processes (and subsequent trust levels), i.e. what factors and aspects affect how accounting information is perceived by individuals? Some argue that in order to reduce uncertainty, we must start looking at factors that make actors draw on and have confidence in management accounting in the first place (cf. Johansson & Baldvinsdottir, 2003). As argued earlier, we lack an understanding of the causes of management accounting variations. There is thus the potential to investigate factors that might account for differences in the perceptions of management accounting information, which subsequently affects trust between people. The question can be formulated as:

- What kinds of factors make people form favorable perceptions of accounting information?

8.2.4 Gap 4 - Potential associations between rational and emotional trust

The fourth gap concerns how different trust types are related to each other. The literature does not identify how they relate in a management accounting context. However, it could be meaningful to understand this relationship better, because it may affect how we portray the association between trust and management accounting. Gap 4 thus defines the following question:

- o How do different trust types relate to each other, i.e. how are rational and emotional trust related in a management accounting context?

Owing to different theories and theoretical assumptions, these two types of trust can only be related if different theoretical perspectives are combined. A cognitive and economic perspective must be combined with a social perspective. Until now, studies on Map A and Map C have not combined these perspectives, while studies on Map B have attempted to move in that direction; however, we need to elaborate on this point further.

8.2.5 Gap 5 – Potential explanation for trustworthiness assessments

Gap 5 is related to the insufficient explanations concerning how and why trustworthiness assessments and judgments are carried out in relation to management accounting and thus how and why trust is subsequently created and developed. From a pure AT/TCE perspective and a sociological theoretical viewpoint, there is a lack of explanation at the cognitive level of where individuals form mental representations, attitudes and perceptions related to management accounting and thus form attitudes towards each other. Psychological reasoning has indicated that cognitive processes are involved here, but we need more insight into these kinds of processes. The question is therefore:

- o Related to management accounting features, how and why do individuals form trustworthiness judgments and subsequently start to create and later develop trust in each other?

This gap concerns a weakness in the theoretical explanations of these issues. These explanations point out the informal implicit processes in individuals' minds that have consequences on their behavior. Owing to the narrow focus and aim at explaining formal control in economic terms, on one hand, and a strong social explanation, on the other hand, studies have not yet focused on these processes. This leads us to the sixth gap.

8.2.6 Gap 6 – A dynamic relationship between management accounting and trust

Gap 6 concerns how trust and management accounting evolve, change, shift and affect each other over time in a dynamic fashion. This gap concerns the weakness in the literature, where trust and management accounting have foremost been studied in a static way, i.e. the majority of all associations between management accounting and trust are of a direct linear nature. Both psychological explanations and pure AT/TCE reasoning have tended to model factors in a unidirectional way to show that management accounting is associated with trust. However, they have not explained what happens in the process of gaining control. As argued in this chapter, in the process of gaining control there are certain effects that a static direct linear model cannot deal with. A social and processual perspective is thus needed to answer the question of what happens in the process of gaining control. In the aim for control, management accounting dimensions and trust affect each other, as certain studies have pointed out (Vélez et al., 2008; Dekker, 2004; Cäker & Siverbo, 2011).

Related to this issue, studies have shown that high trust levels have contrasting effects. On one hand, high trust leads to high levels of management accounting information relevancy, while, on the other hand, it leads to low levels of management accounting information relevancy. This inconsistency needs to be addressed. However, part of the answer might lie in the different functions and objectives of management accounting information, as others have argued (cf. Caglio & Ditillo, 2008; Vosselman & van der Meer-Kooistra, 2009; Cäker & Siverbo, 2011).

Management accounting information might be introduced and utilized for objectives other than a strict and excessive control. There is thus a danger when high trust implies that management accounting is unnecessary. It is more meaningful to argue that control is unnecessary or at least is downplayed, although management accounting information will still be relevant[38]. When utilizing management accounting information in a way that does not breed mistrust, and utilizing it for purposes besides strict control, management accounting and trust will arguably reinforce each other (Vélez et al., 2008). The opposite result in the area must thus be seen in light of the different functions of management accounting (information).

Here we need to know more about these alternative functions and processes of management accounting in relation to trust. However, first we need to address gaps 1–5, which concern relationships between management accounting dimensions and trust types and their explanations. If these factors and associations are elaborated on and theoretically underpinned, we can then gain insights into and an understanding of the following question:

[38] This is also in line with Langfield-Smith & Smith's (2003) study. The authors found that even though a high level of trust was visible between parties, they utilized accounting information even more and stricter.

- How does management accounting shift and change in a dynamic fashion, together with and in relation to, a shift and change in trust, implying a potential to conceptualize different functions of management accounting and trust?

This question emphasizes the meaningfulness of modeling and explaining the factor of 'management accounting change' in relation to a dynamic and changing nature of management accounting features and trust features. The factor 'management accounting change' comes finally in as an important factor to be understood from a processual and dynamic perspective.

Gap 6 thus addresses the call in the literature to focus on a more dynamic perspective of trust and management accounting (cf. Tomkins, 2001; Vosselman & van der Meer-Kooistra, 2009). Over time, management accounting and trust reduce and absorb uncertainty. In this kind of process, they affect each other and change and shift character. Until now, we have a weak understanding of such dynamic processes, mainly because studies have focused on a static perspective to explain how to gain control and show that control is gained through a unidirectional relationship between management accounting and rational trust. However, if extending the perspective to social interaction, a more processual interactive way of modeling and conceptualizing management accounting and trust is crucial. The meaningfulness of this perspective lies in its possibility to account for efficiency and a functional outcome despite uncertainty. In the face of uncertainty, it also considers effectiveness and flexibility and a deviation from established routines and habits in order to change and explore new ways of performing. These six gaps are addressed in Chapter 9.

9 TOWARDS A GENERAL MODEL OF MANAGEMENT ACCOUNTING AND TRUST

This chapter presents and suggests a model that builds on the existing literature but also adds issues of importance to the existing knowledge. It starts with a definition of trust and the specific implications of that definition for management accounting. Then, the general logic and theoretical reasonings behind the model are discussed in order to provide more substance to the 12 propositions developed later in this chapter.

9.1 Trust and management accounting as a dynamic phenomenon

Trust can be defined as a psychological state that comprises the willingness or intention to be vulnerable based upon the positive expectations of the intentions or behavior of another party (Rousseau et al., 1998). Making oneself vulnerable is taking risk in an uncertain or risky situation (Mayer et al., 1995; Schoorman et al., 2007). This implies that trust make it possible for people to act in situations involving uncertainty about future contingency (Zucker, 1986; Mayer et al, 1995; Schoorman et al., 2007) and that leads to a set of behavioral expectations among people, allowing them to manage the uncertainty associated with the situation (Jones & George, 1999). Consequently, trust can be seen as an uncertainty absorption mechanism (Tomkins, 2001). Different situations, tasks and contexts entail different levels of uncertainty, implying that the specific context, situation and task must be taken into account when trust states are formed. Further, trust emerges and develops in a relationship and thus varies between relationships (Schoorman et al., 2007; Jones & George, 1999). In short, trust is a risky engagement where someone has trust in someone or something in some respect and under certain conditions (Nooteboom, 2002). Trust is thus based on the perceptions of trustworthiness by the trustee in a specific situation and domain as well as on the emotional and affective bonds between people.

In the suggested model, the general context is a day-to-day management accounting situation. The common denominator is a situation involving uncertainty. Without some level of uncertainty, trust is redundant (cf. Hartmann & Slapničar, 2009; see also Luhmann, 1979; Lewis & Weigert, 1985). Further, the relationship between trust and management accounting is conceptualized as a dynamic phenomenon (cf. Tomkins, 2001; Vosselman & van der Meer-Kooistra, 2009), i.e. it evolves and changes over time. Specifically, this means that trust develops over time during interactions between people in different management accounting situations. Here, cognitive processes are involved, i.e. perceptions of and reactions to accounting information and accounting processes, as are different uses of management accounting and trust in management accounting. In these social and cognitive processes, trust develops in conjunction with the development of the relationship, which is seen as growing and evolving over time (Tomkins, 2001).

From this perspective, trust is seen as an active and dynamic experience where different types of trust evolve dependent on information cues from past experience, present performance and appearance about the trustee, attained in interactions between a trustor and a trustee (Jones & George, 1999). Different dimensions of management accounting are suggested to play an important role in this evolvement, which are elaborated on in this chapter. The reasoning here aims to be as general as possible; it refers to two parties that find themselves in a relationship. Sometimes examples are given from the literature; in such cases, a superior/subordinate pair or dyadic partners are referred to.

9.1.1 Trust and management accounting in interaction

The social and symbolic interactionism developed by Mead (1934) and Blumer (1962), and further conceptualized in a trust context by Jones and George (1999), is a fruitful way of extending the psychological and economic (TCE/AT) reasoning concerning trust and management accounting to a collaborative setting between individuals and organizations. This perspective takes both the trustor and the trustee into account. Hence, it conceptualizes trust as a relational concept, where trust is portrayed from both sides of a relationship. Further, it involves dynamic aspects of trust development, as trust may shift and change between different states. Here, this change and shift in trust in social interactions in relation to management accounting dimensions is of importance. This is a meaningful perspective if we want to understand how trust affects parties' cognitions, behaviors and actions. The perspective incorporates cognitive, economic and social motivation. It extends a pure TCE/AT model of man in that a purely self-interested economic actor also takes others' wealth into consideration (Lindenberg, 2000).

Interaction is here defined as a reciprocal influence of individuals upon one another's actions when in one another's immediate physical presence (Goffman, 1959). Here, interaction implies that at any encounter parties mutually develop and negotiate a definition of the situation. Each party aims to understand the other party's expectations, needs and goals. A person tries to take the perspective or role of the other in order to call out the same response. The social interaction can thus be seen as a joint creation of meaning and definition of the situation (Mead, 1934 in Jones & George, 1999).

In each social encounter, actors can always shape the course of future interactions and adjust their behavior for their immediate audiences (Goffman, 1959). This perspective fits well with a dynamic trust process, and gives room for different trust types. It states that trust may shift and change over time; this does not go against cognitive and economic assumptions, but adds to these assumptions. The purely self-interested instrumental actor must thus be relaxed, and a behavioral assumption must include an understanding of others' well being in addition to one's well being and wealth, including psychological and economic wealth (cf. Huemer, 1998). This is a persepctive which help us understand trust developments in a management accounting context deeper.

The experience of trust is based on a person's cognitive (rational) beliefs and attitudes as well as values and emotional bonds. Cognitive beliefs and attitudes provide knowledge of another's trustworthiness. Values provide standards of trust that people strive to achieve in their relationships with others, while emotions provide signals about the presence and quality of trust in a relationship (Jones & George, 1999). Thus, attitudes and rational or cognitive judgments structure the experience of trust in specific ongoing relationships, while emotions function as signals concerning the changing nature of the ongoing experience of trust. Consequently, the joint creation of meaning and definition of the situations depend on the development of favorable cognitive beliefs, attitudes, expectations and emotions, which develop through interaction and communication (Jones & George, 1999).

Generally, this perspective fits well with cognitive and social perspectives in the management accounting literature. Further, related to TCE/AT reasoning, it demands a relaxation of the basic assumptions about self-interested instrumental individuals free from and not embedded in a social sphere. If these assumptions are allowed to be relaxed, a more social and 'other regarding' model of behavior comes to the fore. Here, common values and norms and emotional bonds are created between parties in social interactions. Further, psychological cognitive processes and motivations are also taken into account.

In this respect, management accounting is seen as an arena for such interactions and thus a place where trust can grow and develop. Parties tend to agree on their perceptions of the level of trust present in the social situation, so adjustments to each other take place. The likely nature of these adjustments depends on the degree of congruence between the values, attitudes and cognitive beliefs of the two parties. The cognitive beliefs and attitudes that people form towards each other are likely to contain information concerning each other's trustworthiness (Schoorman et al., 2007; Jones & George, 1999; Sztompka, 1999). Here, psychological cognitive processes are important. Based on past experience, knowledge and information cues, derived from management accounting, parties can update and reassess their initial assessments of each other's trustworthiness continually. Management accounting functions as a platform for interaction, while the content and characteristics of management accounting processes give clues about trustworthiness. This perspective does not go against a control perspective. The idea here is that different functions and activities take place within this more informal interactive platform that management accounting can be conceptualized as.

Overall, management accounting can be incorporated in an interactional process between people. In this respect, trust between parties is backed up by highly relevant accounting information, highly acceptable management accounting processes and the favorable use of management accounting (cf. Sitkin & Roth, 1993, Busco et al., 2006; Hartmann & Slapničar, 2009; Lau & Sholihin, 2005; Lau & Buckland, 2001). This makes the joint creation of meaning more visible and explicit and what the relationship is about, and what goals the relationship has. However, at the same time, control functions will be present, maintained and sustained (cf. Vosselman & van der Meer-Kooistra, 2006).

9.2 Propositions and theory development

In this section 12 propositions (P1-P12) are elaborated on. Each proposition is described and theoretically elaborated on. See figure 9.1.

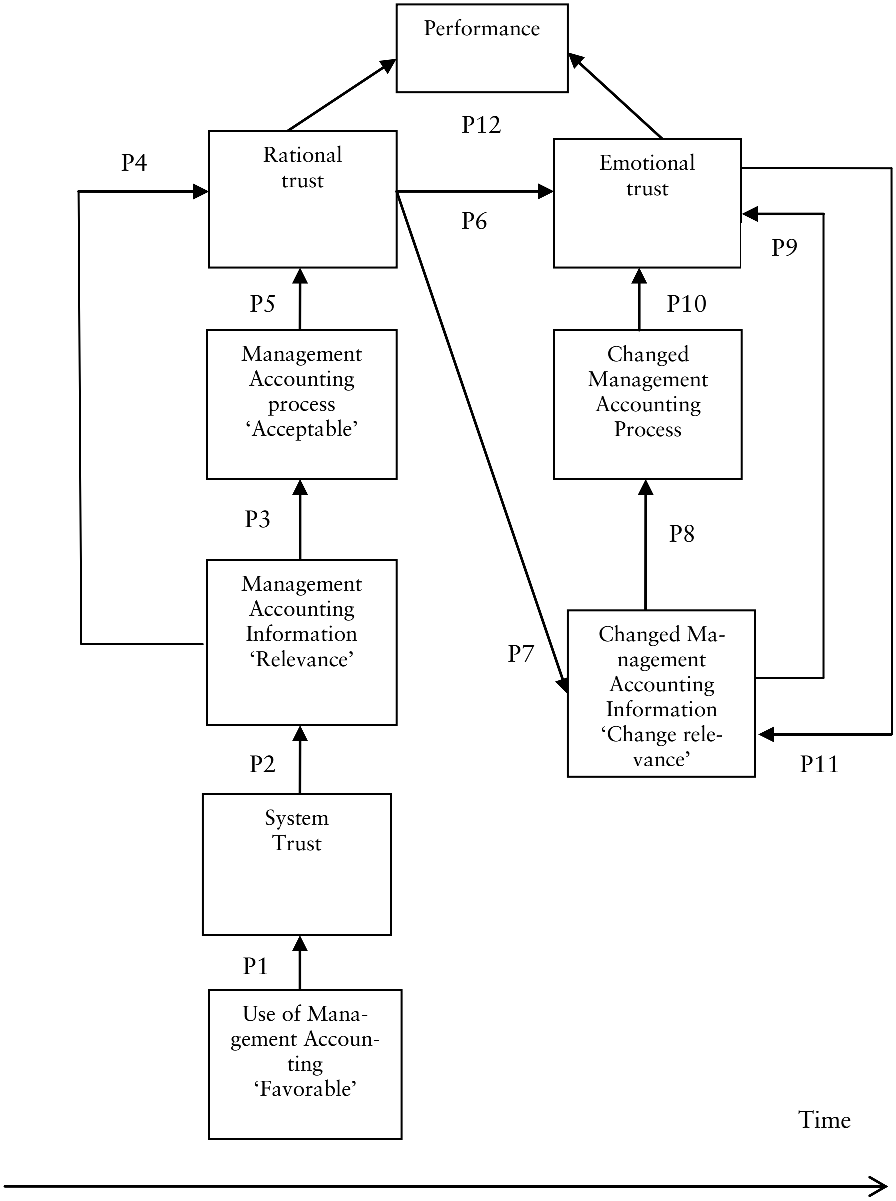


Figure 9.1 Management accounting and trust – propositions for model development.

9.2.1 Management accounting use associated with system trust - P1

I propose that 'system trust' is dependent on how people make use of management accounting, including accounting information. The overall assumption is that the actors responsible for management accounting can deliberately and intentionally choose how to use and handle management accounting information. This choice and subsequent actions affect whether and if people will trust management accounting (or not) in the first place.

Here, we see a role for humans as change agents. Individuals who use management accounting have the power to influence others who encounters management accounting. Moreover, if they can influence others' cognitions and behaviors, they have *'succeeded in winning the trust of others'*, as Johansson and Baldvinsdottir (2003) argue.

This aspect does not go against the psychological argument that individuals seek mental consistency, because here it is assumed that individuals who trust management accounting because of highly favorable use utilize management accounting and form favorable mental representations of its information and processes. High system trust (caused by highly favorable use) is favorable for individuals' cognitive striving for mental equilibrium and consistency. As argued elsewhere, this is functional for the organization as a whole. Consequently, even though the factor 'management accounting use' is characterized by a high degree of volition, the factor is here defined as functional for the organization and for individuals. The opposite situation is also visible, where low levels of system trust are dysfunctional for the organization, because the management accounting system is detached from daily operations (cf. Nor-Aziah & Scapens, 2007).

Further, to trust management accounting (systems) implies, according to Giddens (1991) that we have trust in abstract principles (faceless commitment) but also that we trust the representatives of management accounting, because those individuals are usually the access points of (abstract) management accounting (systems), and (abstract) management accounting (systems) become visible through their agents. Consequently, face-to-face contact represents an important source of system trust (cf. Seal et al., 2004; Busco et al., 2006). This implies that trust in management accounting is based on 'a presentational base' where the individual that represents management accounting and their use of it, is an important driver of trust in-management accounting (see Goffman, 1959).

Thus, how representatives or operators of management accounting make use of, act, present themselves and represent management accounting at access points influences the development of trust in management accounting. They are needed in order to reassure individuals that management accounting is functioning properly. That is what Goffman (1967) calls 'the demeanor of system operators'; through a visible, sincere and personalized demeanor, i.e. an intentional and active way of using management accounting, trust in management accounting will be maintained and built up (cf. Giddens, 1990; Goffman, 1967).

The link between 'management accounting use' and 'system trust' is also elaborated on in the empirical management accounting literature. For example, Johansson and Baldvinsdottir (2003) show that the way people use management accounting and its information affects whether trust in management accounting will develop or not. If management accounting is used in a trustful, open and helpful manner, trust in management accounting increases. By contrast, when management accounting is used in a punishing, excessive, manipulating and dominating way, distrust is created (Johansson & Baldvinsdottir, 2003; Free, 2008, Johansson & Siverbo, 2011).

In the organizational literature, studies have shown that the intentions of the controller or manager responsible for management accounting have an important impact on trust development (Elias, 2009). Implicitly, this means that favorable use might cause high trust in management accounting and vice versa. Based on these suggestions, the following proposition is stated:

PROPOSITION 1. *The higher the level of favorable use of management accounting, the higher is the level of trust in management accounting (i.e. system trust).*

9.2.2 Trust in management accounting (system trust) associated with management accounting information - P2

Next, I propose that trust in management accounting in turn is associated with management accounting information in a direct linear way. Trust in management accounting means that we trust the functioning of management accounting. High trust in management accounting is here proposed to be associated with a favorable perception of accounting information. Accounting information is the main element of such systems. A favorable perception of accounting information implies that the information is perceived as highly relevant and highly accurate, which thus is a consequence of high trust, characterizing the management accounting system. Hence, when people find management accounting highly trustworthy, they perceive accounting information as highly relevant. If they do not trust management accounting in the first place, the information will instead have low levels of relevance for actors, which prevents them from utilizing and drawing on management accounting in the first place. Further, this proposition constitutes one suggestion for how to bridge Gap 3, i.e. how trust in management accounting is related to management accounting dimensions and trust between people.

This argument is in line with the reasoning in the trust literature (e.g. Möllering, 2006; Giddens, 1990) and in the empirical management accounting literature (e.g. Johansson & Baldvinsdottir, 2003; Jeacle & Carter, 2011). A primary assumption in this literature is that system trust is a necessary condition for trust between people to evolve and develop. Without being reliable and trustworthy, management accounting can never function as a base for trust between people.

For example, Johansson and Baldvinsdottir (2003) and Baldvinsdottir (2001) discuss that trust in management accounting is a necessary condition for trust between people. Further, Möllering (2006) argues that personal trust between people cannot be developed from systems if the system itself cannot be trusted, but if systems are trusted, this fosters trust at the interpersonal or interorganizational level (Möllering, 2006). In line with this reasoning, Nor-Aziah and Scapens (2007) argue that in a context of distrust in the budget system, trust between different subgroups in the organization cannot be developed. Finally, Busco et al. (2006) argue that individual trust and trust in management accounting are often interlinked, and that system trust is a prerequisite for trust between people.

One explanation for why system trust is needed to strengthen the link between management accounting and trust is found in Sztompka's (1999) theoretical reasoning. He argues that there are certain systematic relationships between different objects of trust, such as between system trust and trust between people. Further, he makes the fruitful distinction between the primary and secondary targets of trust. He finds that the relationship between the primary and secondary targets of trust can be characterized as a pyramid. This means that we must trust the secondary targets of trust if we are to rely on them as a basis for primary trust. For example, when management accounting and its information and processes function as a basis for trust between actors (the primary targets of trust, both parties must trust the management accounting system (the secondary target) otherwise they will not develop trust in each other. We must rely on the secondary targets of trust and take them seriously otherwise we cannot draw on them as sources or bases for trust in other objects (Sztompka, 1999). Thus, the management accounting system becomes an object of trust only derivatively in the process of placing trust in a person.

In sum, the sources of clues (here management accounting information and processes) about trustworthiness (of people) become the objects of trust (trust in the management accounting system) in order to rely on management accounting as basis for trust between people. Overall, this explains why system trust is a necessary condition for trust between organizations or people to develop based on management accounting, its information and its processes. However, here it is argued that system trust affects trust between people indirectly through management accounting information and processes. Thus, the following proposition states:

PROPOSITION 2. *The higher the level the trust in management accounting, the higher is the level of relevant and accurate management accounting information.*

This direct association between trust in management accounting and accounting information has until now not been elaborated on in the management accounting literature. Consequently, Proposition 2 aims to find a suggestion to bridge Gap 4, namely how to explain variations in management accounting information. Such variations can consequently be explained by high or low trust in management accounting (system trust). A high level of trust in management accounting is associated with a high level of relevant management accounting information and vice versa.

Proposition 2 also suggests how to bridge Gap 3, i.e. how and why system trust is related to management accounting dimensions and trust between people. The suggestion to bridge Gap 3 implies that trust in management accounting is related to trust between people indirectly through information and processes features (see Propositions 3, 4 and 5).

Gap 1 is also suggested to have a solution here. How management accounting use is associated with trust between people and management accounting information and processes can be explained through Propositions 1 and 2. These imply that management accounting use affects system trust (P1), which affects information features (P2). Consequently, Gap 1 is suggested to be solved through the reasoning that management accounting use is associated with management accounting information and trust between people indirectly. Further, this indirect association goes via trust in management accounting. Consequently, it is proposed that highly favorable management accounting use leads to highly relevant accounting information, but only indirectly through high trust in management accounting. This contributes to the literature by explaining how and why system trust is formed through favorable use and affects information features; consequently, how and why trust between people is subsequently formed, as the next proposition shows.

9.2.3 Management accounting information and management accounting processes – P3

Accounting information is of central concern in management accounting practices and processes. Management accounting utilizes accounting information in the form of different figures. Figures come in form of performance targets, measures and results. How such figures are perceived by people and how people are affected by them, i.e. the cognitive beliefs and attitudes towards accounting information are important determinants of how people perceive the whole accounting process and its related activities (cf. Otley, 1978; Mayer & Davis, 1999). That is so because the main substance and essential aspects of such processes are accounting information per se. As such, information constitutes the main element of the whole process. The features of accounting information (e.g. measures) are thus intrinsically linked to the corresponding features in accounting processes (e.g. the measurement process).

This implies that management accounting information is an important determinant of how the management accounting process is perceived by actors (Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009). Consequently, if accounting information is perceived as highly relevant for organizations and individuals, which utilize such measures in order to assess performance, then the corresponding features of accounting processes are an acceptable and legitimate perceived measurement process. When a trustor finds the management accounting information to be highly relevant, he or she is more inclined to participate in and find the management accounting process to be highly legitimate (cf. Lau & Buckland, 2001; Hartmann & Slapničar, 2009). For example, Hartmann and Slapničar (2009) argue that the features of performance information influence the whole performance process. Lau and Sholihin (2005) and Lau and Buckland (2001) also argue that the features of performance information are closely related to and affect how people perceive and react to the whole performance evaluation process.

In sum, information features are constitutive elements of the process, and this relationship is well supported in the literature (Hartmann & Slapničar, 2009; Lau & Sholihin, 2005; Lau & Buckland, 2001). The third proposition thus states:

PROPOSITION 3. *Management accounting information has a direct positive influence on management accounting processes, i.e. the higher the relevance of management accounting information, the more acceptable and legitimate actors find the management accounting process.*

9.2.4 Management accounting information and rational trust – P4

Management accounting information is also an important determinant of rational trust (Otley, 1978; Seal et al., 1999; Coletti et al., 2005; Emsley & Kidon, 2006; Seal et al., 1999; Dekker, 2004; Vélez et al., 2009; Neumann, 2010). This proposition is consistent with TCE/AT reasoning and psychological cognitive theory and their basic models between management accounting and trust.

The general explanation here is that highly relevant accounting information is important for assessing a partner as trustworthy, where trustworthiness implies a rational type of trust in a trustee. From information and knowledge about a trustee, the trustor can judge the trustor as trustworthy. Even though the assumption of bounded rationality is evident, and because of that accounting information is incomplete, highly relevant accounting information provides information clues about performances, competencies and intentions. These are all examples of important dimensions when a trustor assesses and judges another party's trustworthiness. Consequently, a trustor needs highly relevant accounting information in order to make judgments about trustworthiness (Seal et al., 1999; Coletti et al., 2005; Emsley & Kidon, 2006; Vélez et al., 2008).

Low levels of relevant accounting information instead cause low levels of trust, because such characteristics imply that the trustor will not be able to judge the trustee as trustworthy and that the trustee will even be assessed as untrustworthy because the relevant information is lacking. Low levels of relevant accounting information thus imply that information is not understandable or inaccessible. Such characteristics of information prevent judgments of trustworthiness and thus breed distrust (cf. Otley, 1978).

Pure AT/TCE reasoning, even if combined with cognitive reasoning, is weak in explaining the process of how and why trustworthiness is assessed and created. In order to address these questions we need to consider a social process in combination with cognitive processes. Elaboration on such a perspective related to a trust creation process is carried out next. If speaking in terms of extending TCE/AT reasoning, this elaboration fits such an extended perspective. However, it takes the reasoning one step further by settling the different phases in this process and identifying the different dimensions of trustworthiness. Primarily, the perspective elaborates on how trust is created, maintained and conceptualized as a social and cognitive process in relation to management accounting.

The trust creation process in a management accounting context

First encounter

Initially, the trust creation process starts when people with no experience of each other suspend the possibility that the other is not trustworthy (see Jones & George, 1999; Giddens, 1990; Möllering, 2006). In order for the trust creation process to continue parties then need to define themselves to others, i.e. parties need to make a visible presentation of themselves to others, such as by expressing sincerity, personalizing encounters and clarifying expectations (Goffman, 1959). The trust creation process can then continue when parties have the will to interact based on that definition.

Hence, the ongoing interaction involves 'impression management', meaning that parties demonstrate and make visibly different dimensions of trustworthiness towards each other (Goffman, 1959; Sztompka, 1999). Management accounting will here play an important role in supporting organizations and individuals to be visible to each other in the first place. The experience of future trust, after the initial encounter, will likely be determined by the content of the interaction through the evolving attitude developed towards the other party. If trust is to be built over time, parties need to develop beliefs and attitudes towards each other, reflecting the other as a trustworthy party (Jones & George, 1999).

Later encounter

Rational trust, based on knowledge and information about people's integrity, benevolence and ability (i.e. trustworthiness dimensions), is thus likely to develop after the initial encounter (Mayer et al., 1995). A rational type of trust is established when parties want to interact, define the situation in a similar way, take the role of the other, form favorable attitudes towards each other and support future interaction (Jones & George, 1999). Highly relevant management accounting information gives clues about others' trustworthiness, i.e. individuals estimate others as trustworthy (or not) based on knowledge obtained by the trustor about the trustee (Sztompka, 1999). We base our perceptions of trustworthiness on 'good reasons' (Lewis & Weigert, 1985) and use cognitive thinking in this respect (Schoorman et al., 2007). The type of trust formed is thus a 'rational' kind. Rational trust is based on information clues and knowledge about individuals or organizations' trustworthiness, as derived from management accounting information. When deciding upon a trustee's trustworthiness, individuals go through cognitive (rational) information processes, which differentiate among people that are trustworthy or not, i.e. rational trust is reached by considering or evaluating the characteristics of the trustee. However, information clues must be processed in order to make a cognitive decision to trust or not. Therefore, the probability of well-placed trust rises with relevant information (Sztompka, 1999).

According to Mayer et al. (1995) and Schoorman et al. (2007), three factors seem to be more salient than others when deciding about the trustworthiness of the trustee: integrity, benevolence and ability. Ability refers to the trustee's skills, competencies, expertise and characteristics that enable a party to have influence within a specific domain (Mayer et al., 1995). This means, for example, being able to complete a specific task successfully (Zand, 1972). Ability may vary within a given trustee and across different domains. Somebody may be perceived as skillful and thus trustworthy in a specific area but not in another. Benevolence refers to the extent to which a trustee is believed to want to do good to the trustor (Mayer et al., 1995). Showing care and concern for another party indicates benevolent behavior. Benevolence is about the perception of a positive orientation of the trustee towards the trustor (Jones & George, 1998). Integrity refers to the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable (Mayer et al., 1995). Generally, highly relevant management accounting information is assumed to cause a trustor to assess the trustee as skilled, benevolent or having integrity (cf. Mayer & Davis, 1999).

Next is a general discussion about how and why a trustor finds a trustee trustworthy and thus how they form rational trust in each other along these three dimensions of trustworthiness in a management accounting context. The discussion might hold for a superior/subordinate relationship or two organizational parties collaborating in day-to-day management accounting activities.

In relation to management accounting information, one party (a trustor) may find the other party (a trustee) skilled, benevolent and having integrity when the trustor receives highly relevant and accurate management accounting information to make judgments about trustworthiness (cf. Mayer & Davis, 1999). Consequently, management accounting information provides opportunities for parties to assess each other as trustworthy (cf. Seal et al., 1999; Coletti et al., 2005; Emsley & Kidon, 2007; Dekker, 2004; Vélez et al., 2009; Neumann, 2010).

This is underlined by Hartmann and Slapničar (2009) (in a superior/subordinate setting). They argue that in uncertain environments (when it is hard to measure), performance information signals to the trustor (the subordinate) that the trustee (the superior) is trustworthy (i.e. benevolent, skilled and consistent) because he or she takes a risk and 'makes an extra effort' to design the system and its information. Consequently, the trustor perceives the information as highly relevant and accurate. In this setting, relevant and accurate information is attributed to the manager who is responsible for it.

Concerning the dimensions of ability and skills, Mayer and Davis (1999) state that highly relevant management accounting information demonstrates to subordinates that superiors have the important skills needed to manage the organization. However, this reasoning is also applicable to a dyadic collaboration. When management accounting information is perceived as highly relevant, it enhances the perception of each parties' high skills and abilities, which is needed when they together ought to manage the collaboration, and consequently they will judge each other as trustworthy.

Further, highly relevant management accounting information signals to the trustor that the trustee cares about and want to do good to the trustor, i.e. that the trustee is seen as benevolent, which consequently causes the trustor to assess the trustee as trustworthy along this dimension. For example, the trustee shows that he or she cares about the trustor when he or she offers relevant information. Relevant information implies that the parties have good knowledge about what goals to work towards, which enhances the clarity of tasks to be performed (cf. Lau & Sholihin, 2005; Lindenberg, 2000; Vosselman & van der Meer-Kooistra, 2009). Generally, this implies that a trustee that demonstrates care and concern for a trustor's needs and interests through the management accounting system and its highly relevant information is seen as trustworthy by the trustor along the dimension of benevolence.

As for the dimension of integrity, relevant information causes a trustor to assess a trustee as having integrity. When management accounting information is clearly linked to parties' actions, highly relevant information allows parties to adhere to a set of given principles. For example, when superiors state that they will reward and recognize performance, and consequently follow through with their statements and actually reward performance, they are perceived as having integrity. Likewise, when a collaborator promises to deliver on time and actually accomplishes the promised delivery on time, it is perceived as having integrity. Shared highly relevant information thus make realized actions visible. Through relevant information, one party sees that the other party keeps his or her promises. Parties can observe, through relevant accounting information, that their partner actually has fulfilled the agreement. In such cases, parties' assessments of each other's integrity will rise (Coletti et al., 2005). Thus, when there is consistency between the information (the actual performance visible in accounting information) and a trustee's words, the trustee is perceived as trustworthy.

In sum, this means that parties' skills and abilities, benevolence and integrity are made visible by sharing relevant accounting information. For example, skills and abilities are shown in relevant information in the form of performance reports. This implies that highly relevant accounting information has a positive relation with rational trust. Thus, the following proposition is formulated:

PROPOSITION 4. *Relevant accounting information has a positive relation with rational trust, implying that partners can assess each other as* *trustworthy, i.e. the higher the relevant accounting information, the higher the level of trustworthiness is and consequently the trust parties will develop for each other is higher.*

This proposition and its related explanations are part of the answer to Gap 5, i.e. how and why are trustworthiness assessments carried out and how trust is created and maintained in relation to management accounting information. Here, it is proposed that accounting information has a direct effect on rational trust. Accounting information is thus of main importance for people when they aim to establish trust between each other.

9.2.5 Management accounting processes and rational trust – P5

I also propose that the effect of management accounting information on trust is indirect through management accounting processes as the mediating factor (cf. Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009). The management accounting process per se is thus an important driver of rational trust (Magner et al., 1995; Lau & Buckland, 2001; Lau & Sholihin, 2005; Lau & Tan, 2006; Hartmann & Slapničar, 2009; Lau et al., 2009; Langfield-Smith & Smith, 2003; Langfield-Smith, 2008; Vélez et al., 2008). In highly acceptable accounting processes, trust is more easily established for reasons elaborated on next.

A highly acceptable process is implicitly a legitimate and agreed process. This implies that actors can assess each other as trustworthy, i.e. when parties take part in the process, through acceptance for it, the process becomes an important way to build trust (Magner et al., 1995; Lau & Buckland, 2001; Lau & Sholihin, 2005; Lau & Tan, 2006; Vélez et al., 2008; Hartmann & Slapničar, 2009; Lau et al., 2009). Further, when parties engage in and perceive the management accounting process to be highly acceptable and legitimate, they find clues about each other's ability, integrity and benevolence.

Tomkins (2001) argues that trust derives from interaction and communication in relationships. In a management accounting context, interaction and communication takes place within management accounting processes. He states that the link is the raised visibility of conduct under such familiar and intimate conditions (cf. Dekker, 2004; Langfield-Smith & Smith, 2003). This means that when parties together participate and engage in management accounting processes, visibility is raised (i.e. in highly accepted and legitimate processes). This is in line with the argument by Sztompka (1999) that raised visibility is the most important trait in trust situations. Management accounting processes make actors visible to each other. In a legitimate and accepted management accounting process, it is easy to gain clues about others' trustworthiness. The opposite is anonymity and distance, which instead creates distrust, as it blocks access to relevant information and prevents judgments of trustworthiness. This is also in line with the arguments by Vosselman and van der Meer-Kooistra (2009), where the accounting system is conceptualized as a signaling device that prevents or permits judgments of trustworthiness.

A highly acceptable and legitimate management accounting process thus provides room for interaction and thus actors can assess and reassess each other as trustworthy (Langfield-Smith, 2008; Vélez et al., 2008). When interacting and communicating in management accounting processes, actors have the chance to constantly reassess and update their perceptions of each other's trustworthiness, which is an important determinant of trust. The type of trust formed first is therefore of a 'rational' kind. Rational trust is thus formed based on clues and knowledge about individuals or organizations' trustworthiness gained in acceptable and legitimate management accounting processes.

In management accounting processes, parties can demonstrate important skills and abilities for each other (Mayer & Davis, 1999). Hence, when the management accounting process is seen as acceptable and legitimate, it enhances parties' perceptions of each other's skills and abilities, and they consequently see each other as trustworthy. A partner's skills and abilities are made visible through joint participation in management accounting processes (e.g. joint goal setting and measurement) (cf. Dekker, 2004; Langfield-Smith & Smith, 2003).

Likewise, highly acceptable and legitimate management accounting processes might signal benevolent behavior and good intentions, i.e. that actors care about each other. For example, a system that gives fair and relevant economic and psychological rewards might cause the subordinate to perceive the superior as benevolent (cf. Mayer & Davis, 1999). Further, when actors participate in management accounting processes, the situation might be characterized as favorable for making benevolent behavior salient, i.e. a favorable situation for showing care and concern for each other. Benevolent behavior may be present and thus easier to assess in solidarity situations, e.g. in common good or sharing situations (Lindenberg, 2000; Vosselman & van der Meer-Kooistra, 2009).

As for the dimension of integrity, an acceptable and legitimate process might cause parties to assess easily each other's integrity. When the management accounting process is clearly linked to parties' actions and performances, parties observe that their counterparts may adhere to a set of given principles. Parties' integrity may thus be visible and enhanced when parties actually see that the other party keeps his or her promises.

Whitener et al. (1998) argue that the performance evaluation process can generally be seen as a way for actors to demonstrate trustworthiness when these processes follow fairness rules, which implicitly means that parties accept and find the process to be highly legitimate. Actors can thus have a considerable impact on building trust in management accounting processes, according to Whitener et al. (1998). Further, in each social encounter actors may adjust their behavior for the benefit of their immediate audience (Goffman, 1959). This implies that parties might engage in behavior that improves the impression about them (Bolino, 1999). When actors in a relationship behave and act in a favorable manner, it makes them appear competent and benevolent. For example, when they work together and participate, in line with the goals set up by management accounting and its processes, parties find each other to be benevolent, skilled and having integrity. One party sees that the other party cares about the work and goals and wants to perform well. They demonstrate for each other the ability to perform a task and that they have the skills necessary to achieve the goals and targets set up by management accounting. Proposition 5 thus states:

PROPOSITION 5. *Highly acceptable accounting processes are related to rational trust between actors in a dyad but also in a superior/subordinate relationship, i.e. the higher the acceptability of management accounting processes, the higher is the level of trustworthiness and thus the higher is the level of rational trust.*

This proposition is also part of an answer to Gap 5, i.e. how and why trustworthiness assessments are carried out and how trust is created and maintained in relation to management accounting processes. Here, it is proposed that accounting processes have a direct effect on rational trust. Besides accounting information, they are of importance for people when they assess trustworthiness and develop trust in each other.

9.2.6 Rational trust and emotional trust – P6

I propose that rational trust has a direct effect on emotional trust. McAllister (1985) argues and finds support for the hypothesis that some level of rational trust may be necessary for emotional trust to develop. That is so because baseline expectations must be met before people will invest more time and effort in a relationship. Rational trust, based on knowledge and information about people's integrity, benevolence and ability (i.e. trustworthiness dimensions), is thus likely to develop first. A rational type of trust is present when parties want to interact, define a situation in a similar way, take the role of the other or form favorable attitudes towards each other to support future interactions (Jones & George, 1999).

Further, emotions affect the ongoing experience and meaning of the relationship (Lewis & Weigert, 1985; Jones & George, 1999; McAllister, 1985). Positive emotions affect the perception that the other party is trustworthy and enhance the possibility that parties develop shared values, a common frame of reference and a shared meaning of the situation (Jones & George, 1999). Parties have the opportunity and time needed to reassess and update their perceptions of trustworthiness and each party's trustworthiness is now assured (Jones & George, 1999), i.e. over time they learn about others and gain more and more reliable assessments of trustworthiness (Möllering, 2006).

For example, in a dyadic relation between organizations, when parties reach shared performance goals, they both experience positive emotions. This provides a powerful signal that they have succeeded in building trust and that they share the same values and attitudes. Thus, emotional trust enters the relationship. In the emotional trust state, shared values are the main way of experiencing trust. Parties have succeeded in developing a common frame of reference and can take the role of the other. Now each party's trustworthiness is assured and emotions strengthen the affective bonds between parties. When emotional trust is present, people may even experience mutual identification with each other (Lewicki & Bunker, 1996). This is also discussed by Vosselman and van der Meer-Kooistra (2009), who state that accounting may even lead to a situation in which parties come to see each other's needs, preferences and priorities as their own. The sixth proposition thus states:

PROPOSITION 6: *When high rational trust is established and assured in a relationship, i.e. when parties find the level of trustworthiness to be high, the affective bonds between people enters the relations and give rise to an emotional type of trust.*

Proposition 6 will answer part of the question of how different trust types are related to each other (see Gap 2). This proposition implies that some level of rational trust needs to be present before emotional trust can enter the relationship. Further, it is one part of the puzzle about how to bridge Gap 6, namely how a dynamic conception of trust might be associated with a dynamic management accounting conceptualization. Here, it is suggested that trust is dynamic insofar that it changes and shifts from a rational state to an emotional state. Further, a rational trust state is needed in order for the emotional state to enter, i.e. rational trust affects emotional trust in a direct way. However, this association must be complemented with other associations in order to fully understand Gap 6. These associations will be elaborated on in the forthcoming propositions.

9.2.7 Rational trust and accounting information: a feedback effect – P7

I propose that rational trust, when established and assured, in a relationship, has a positive feedback effect on accounting information, i.e. the higher the rational trust state, the higher is the level of relevance of accounting information. A high relevance of accounting information here implies that the information must adjust to the changing needs in the relationship, such as by supporting different functions of management accounting dependent on the demands from within the relationship (e.g. controlling, monitoring, coordinating and learning) (cf. Dekker, 2004; Vélez et al., 2008).

The link from rational trust to accounting information is shown to be both positive and negative in the literature. If trust leads to higher levels of accounting information, we must be able to explain why this is the case. When trust is established in the relationship, and a certain level of control is assured, the relationship might still be in need of accounting information. Further, if trust is high, there is room for maneuver and flexibility, which in itself calls for more accounting information. Studies in the interorganizational management literature have, for example, shown that trust makes actors willing to go beyond predictability, i.e. to accept more risk and uncertainty in order to explore new and unpredictable ways of doing businesses (Huemer, 2004). Management accounting information and processes in such cases might be utilized for exploration, learning, innovation and change in addition to control and coordination functions. Importantly, if alternative functions of management accounting (information) are considered, trust might not make accounting information unnecessary or redundant.

The positive association between rational trust and accounting information is discussed in the management accounting literature. When rational trust is present, for example, a higher quality of information (i.e. timelier, more specific and more understandable) is shared between parties (cf. Dekker, 2004; Vélez et al., 2008). For example, Vélez et al. (2008) argue that with the growth in trust, there is an increasing willingness to accept risk and to augment the scope of the relationship, which leads parties to demand more highly relevant information in order to better manage their activities.

Thus, when rational trust is established and reassured in a relationship, it has a feedback effect on accounting information (Vélez et al., 2008; Dekker, 2004; Langfield-Smith & Smith, 2003). Dekker (2004) argues that owing to a certain trust level, sharing relevant accounting information is not seen as a large risk. In the course of a relationship, when trust is present, parties demand more accounting information to allow them to better manage and coordinate their activities. With the growth in trust, there is an increasing willingness to accept more risk and thus to share more information. This supports Tomkins' (2001) argument that the level of trust influences information need, which in turn influences trust. When rational mutual trust is established, it affects the willingness of parties to reveal more relevant accounting information, i.e. more timely, accurate, meaningful or comprehensive information (see also Seal et al., 1999; Langfield-Smith & Smith, 2003; Brower et al., 2009).

In line with these reasonings, I propose that when rational trust is established, the demands on the accounting system and its information change. That might be so because an already established level of trust makes parties have positive expectations of each other, which makes them able to take more risks in the relationship. Thus, they become more inclined to augment the scope of their activities. Accounting information is thus assumed to be utilized for different reasons than strict control. At the beginning of a relationship, management accounting information might be utilized for control and monitoring reasons for opportunistic reasons, whereas later in the course of a relationship, when trust is established, accounting information might be utilized for coordinating, exploring and learning (cf. Dekker, 2004; Vélez et al., 2008) (see also Huemer, 1998; Jørgensen & Messner, 2009, Caglio & Ditillo, 2012). The relevance of accounting information thus adjusts to different functions of the accounting system. The established trust level is an indication of how much or what type of information one is willing to share and utilize (Tomkins, 2001).

Organizational research has suggested that mutual trust between a superior and a subordinate has a favorable effect on information sharing between parties (e.g. Brower et al., 2000; Spreitzer & Mishra, 1999). When parties trust each other, they are more willing to put themselves at risk. Further, under such conditions they reveal more relevant and accurate information to each other. Hence, the perceptions and utilization of information will change due to the present trust level. These arguments go well with Tomkins' (2001) argument that relevant accounting information (e.g. kind, amount, quality and reliability) is itself a function of an interactive social process. Accounting information is not a static variable; it changes over time. Hence, the kind, amount, quality and reliability of accounting information that people reveal, share and make explicit to each other may vary in the course of a relationship. Perceptions of information at one point in time influence the trust level, which in turn influences information perceptions at a later point in time. Thus, Proposition 7 states:

PROPOSITION 7. *When rational trust is established and reassured in a relationship, it feedbacks on accounting information. In other words, the* *higher the rational trust, the higher is the level of relevant accounting information. Further, the utilization of accounting information change, dependent on the changing needs from demands within the relationship.*

This proposition is part of the answer to the question defined in Gap 6, i.e. how management accounting changes and shifts in a dynamic fashion, related to a trust concept that might also shift and change over time in a dynamic fashion. It is suggested that highly relevant accounting information and highly legitimate and accepted accounting processes determine rational trust. Further, rational trust makes it possible to augment the scope of the activities within the relationship, which allows accounting information to be utilized for different purposes. Rational trust thus feedbacks on accounting information, which implicitly means that the role and function of accounting information will change. The dynamic of management accounting information is thus visible in a shift and change in its function because of the trust level established in the relationship, where trust affects accounting information. We can thus see that accounting information and trust are dependent on each other over time.

9.2.8 Management accounting information and management accounting processes (when rational trust is established) – P8

When rational trust has fed back on management accounting information (Proposition 7), such information influences the perceptions of the management accounting process. That is so because, as Proposition 3 also states, perceptions of management accounting information affect how the whole management accounting process is perceived, because the main element of the whole process is the characteristics of information per se (see Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009). Consequently, if accounting information is perceived as highly relevant and important for organizations and individuals that utilize it for different purposes, then the corresponding attribute of accounting processes is an acceptable and legitimate perceived measurement process utilized for different purposes. Information attributes are thus a constitutive element and essential aspect of the attributes of the process, and this relationship is well supported in the literature (Hartmann & Slapničar, 2009; Lau & Sholihin, 2005; Lau & Buckland, 2001).

The difference compared with Proposition 3 is that the association between information and process features is now embedded at an established level of trust between parties. This fits with Vosselman and van der Meer-Kooistra's (2009) reasoning, where a certain level of trust is necessary before the accounting system can be utilized for signaling positive intentions and behaviors. This implies that an established and reassured level of trust becomes an important determinant of accounting information, which in turn affects how management accounting processes are characterized and utilized.

This could imply that owing to rational trust, the perception of accounting information, and the subsequent management accounting process, might shift and change to include different functions. The utilization of the process will assumingly be deeper, i.e. actors will draw on the management accounting process even more in daily activities and practices. Consequently, the features and perceptions of the process will change to stronger acceptance and legitimization for the process, i.e. actors will find accounting processes to be even more legitimate and acceptable than before. That is so because within the management accounting process, parties will see possibilities to augment the scope of the relationship in order to better manage their activities. Consequently, the role of trust is to facilitate a deeper utilization of the management accounting process, i.e. help actors draw on the management accounting process in changing and newer ways. Proposition 8 thus states that:

PROPOSITION 8. *When a rational trust level is established in a relationship, management accounting information has a direct positive influence on management accounting processes, i.e. the higher the relevance of management accounting information, the more acceptable and legitimate actors find the management accounting processes to be. Further, the utilization of the management accounting processes is changing, i.e. actors draw on management accounting processes in other or deeper ways in day-to-day activities.*

The proposition and reasoning here suggests part of an answer to the gap in the literature concerning how management accounting features change and shift during the course of a relationship in relation to trust (Gap 6). As elaborated on above, rational trust feedbacks on information and makes information useful based on demands inherent in the relationship (e.g. coordination, learning and exploration reasons). Consequently, the information must adjust to the changing role of management accounting, which depends on the scope of activities. Further, this in turn changes the way accounting processes are perceived and utilized, i.e. they might become even more acceptable and legitimate, which makes actors draw on them even more. Proposition 8 is thus one suggestion to bridge part of Gap 6, i.e. how management accounting changes and shifts in relation to trust. The next two propositions are suggested for how to bridge the last puzzle of Gap 6.

9.2.9 Management accounting information and emotional trust – P9

I propose that highly relevant accounting information is a meaningful determinant of emotional trust because of the capacity of accounting information to signal actors' mutual interests, shared values and positive intentions. Such relationship signals come in form of performance goals and achieved performance targets (cf. Vosselman & van der Meer-Kooistra, 2009: Lindenberg, 2000).

When actors observe through highly relevant information that there are mutual interests and shared intentions, emotions will affect the ongoing experience and meaning of the relationship (Lewis & Weigert, 1985; McAllister, 1995; Jones & George, 1999). During the course of a relationship, a high degree of relevant management accounting information thus works as a signal to parties about their levels of shared values and mutual interests, which consequently fosters emotional trust between people and organizations (Seal et al., 1999; Dekker, 2004; Vélez et al., 2008; Neumann, 2010). This means that emotional trust enters the relationship and develops when partners have positive expectations about each other and when accounting information signals such positive expectations (Vosselman & van der Meer-Kooistra, 2009).

Thus, when accounting information signals to actors their shared values, mutual interests and mutual intentions, they both experience positive emotions. Further, this provides a powerful signal that they have succeeded in building trust (Jones & George, 1999). Thus, accounting information not only provides information about a trustee's trustworthiness (i.e. rational trust, see Proposition 4), but also informs them about the level of affective bonds, mutual interests and shared values between the two parties. This argument is also in line with Vosselman and van der Meer-Kooistra's (2009) reasoning that accounting information signals positive behavioral expectations. Proposition 9 thus states:

PROPOSITION 9. *When rational trust is established and reassured, the higher the relevant accounting information, the higher is the level of emotional trust.*

Propositions 4, 7 and 9 show how trust and management accounting information change and shift in a bidirectional way over time. These propositions are thus part of the answer to Gap 6, because these associations and reasonings show that trust is dependent on accounting information, but that accounting information is also dependent on trust. Further, within this interdependency the factors undergo changes and shifts. The role and function of accounting information will shift based on a certain trust level, and trust will change from one state to another because of the perception and utilization of accounting information. This implies a dynamic mutually reinforcing relationship between trust types and information features.

9.2.10 Management accounting processes and emotional trust – P10

Highly acceptable and legitimate management accounting processes are associated with emotional trust. In the course of the relationship, when parties have had the chance to interact, emotions affect the ongoing experience in the relationship (Lewis & Weigert, 1985; McAllister, 1995; Jones & George, 1999). In other words, parties have the opportunity and time needed to reassess and update their perceptions of trustworthiness and each party's trustworthiness is now assured (Jones & George, 1999). In the emotional trust state, shared values are the main way of experiencing trust. Parties have succeeded in developing a common frame of reference and can take the role of the other. Now each party's trustworthiness is assured and emotions strengthen the affective bonds between them.

One prominent explanation for this association is that highly acceptable and legitimate processes give room for interaction. Consequently, actors can assess and reassess each other as trustworthy (McAllister, 1995; Langfield-Smith, 2008; Vélez et al., 2008) and develop affective bonds, mutual interests and shared values (Langfield-Smith & Smith, 2003; Langfield-Smith, 2008). This means that the level of trust present is closely related to the frequency of interaction between individuals (McAllister, 1995).

When parties in a dyad or a superior and subordinate pair engage in management accounting processes, where they together discuss and develop performance indicators, they establish a forum for ongoing interaction, which is a way of increasing familiarity and communicating performance expectations (Langfield-Smith & Smith, 2003). This means that parties become visible to each other, which as Sztompka (1999) argues is one of the most important traits of a situation where trust can develop. By contrast, low levels of legitimate and acceptable processes will most likely not lead to emotional trust. Such characteristics will probably undermine interaction and communication and thus diminish people's visibility and breed distrust.

Langfield-Smith and Smith (2003) describe how the management accounting process becomes a driver of emotional trust. In the process of discussing and establishing joint performance targets, the process becomes a forum for interaction, debate and participation in decision making processes. As a result of the interaction, parties develop mutual interests and shared values. Thus, management accounting processes make a deeper trust level feasible by making repeated interactions possible.

This can explain the result of Langfield-Smith and Smith's (2003) study that shows that emotional trust is compatible with a strong and rigid performance evaluation system. Further, as the authors argue, emotional trust may even strengthen with the development of a more rigid management accounting process.[39]. That is so because when people take an active role in, and are given the opportunity to participate in, a highly acceptable and legitimate process, and consequently are given the possibility to interact, they create a shared meaning of the situation (Jones & George, 1999). Hence, when they develop joint performance targets (referred to as a 'strong control system' in Langfield-Smith & Smith, 2003), they also develop shared values and mutual interests, which are strong drivers of emotional trust. Thus, when parties interact in a control process, they might be steered and they might control each other; but, at the same time, they build strong and deep levels of trust. Proposition 10 thus states:

PROPOSITION 10. *The higher the level of acceptable and legitimate accounting processes, the higher is the level of emotional trust visible in the relationship.*

This proposition shows that the management accounting process is associated not only with rational trust, as Proposition 5 suggests (where the process gives clues about trustworthiness dimensions), but also with emotional trust. The management accounting process gives room for frequent interactions and consequently facilitates emotional trust.

Propositions 5 and 10 show that the management accounting process is associated with different trust types. This is a suggestion for how to resolve the unclear relationship between different trust types and management accounting, i.e. the management accounting process leads to both rational and emotional trust, which is part of the answer to Gap 2. The reasoning is that rational trust develops first. Later, emotional trust can enter. Further, the management accounting process give clues about trustworthiness, i.e. it facilitates rational trust. However, management accounting processes give also room for interactions, i.e. they help facilitate emotional trust.

Proposition 10 is also the last part of the suggestion for how to bridge Gap 6, i.e. how management accounting changes and shifts in a dynamic fashion. Here, a change in the utilization of the management accounting process implies a deeper and stronger legitimacy and acceptance for the processes, for newer and different purposes. This thus takes trust to another level, i.e. trust will also change and shift from a rational to an emo-

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[39] They find it surprising that their result goes in the opposite way to other studies that show that a strong control system is incompatible with trust (e.g. Das & Teng, 1998; Inkpen & Currall, 2004).

tional state (as Proposition 9 also suggests, but there accounting information is the cause).

In order to address Gap 6 as a whole, we need to emphasize Propositions 3 to 10 because they show that management accounting information and processes are associated with rational and emotional trust in a bidirectional way. This implies that management accounting and trust over time are dependent on each other, as suggested in Propositions 3 to 10.

9.2.11 Emotional trust and changed management accounting information – P11

I propose that when emotional trust is established in a management accounting context, the outcome is changed management accounting information. Emotional trust and closer cooperation make it possible to take even more risks in the relationship, which makes parties utilize management accounting for other reasons and purposes (cf. Dekker, 2003; Vélez et al., 2008).

Vélez et al. (2008) argue that when a relationship evolves, and trust reaches higher levels, parties are inclined to engage in riskier operations and stronger cooperation, which changes the demands on the management accounting system. For example, accounting information will still be needed even if trust is high, but the type and character of accounting information will change.

Coletti et al. (2005) also show that trust and accounting affect each other in series of positive feedback loops. Management accounting processes constantly give clues about others' trustworthiness and thus constantly adjust and change to the present level of trust. Seal et al. (2004) states that over time the system and its information undergo constant change. The overall argument is that in order for management accounting to change, parties need to establish a certain level of trust between each other before they can utilize management accounting in newer or other ways, which consequently changes the overall utilization of management accounting. Thus:

PROPOSITION 11. *The higher the level of emotional trust in a relationship, the higher is the likelihood for a changed management accounting information, i.e. a changed utilization of accounting information.*

This proposition is related to other management accounting information functions that might include effectiveness and flexibility, not only efficiency, as evident in a strict control and coordination function. Generally, a high trust level is proposed to be associated with higher effectiveness and flexibility, beyond efficiency.

9.2.12 Trust and performance as an outcome – P12

The final proposition suggests that performance is another outcome of trust in a management accounting context, except for changed management accounting, as suggested in Propositions 7 and 11. Zaheer et al. (1998b) show that trust is a powerful influence on performance. Lau et al. (2008) suggest future research should investigate performance as an outcome variable of trust, because it is of importance and a practical concern for organizations. Brower et al. (2009) also show that trust has several positive behavioral outcomes, including performance. Finally, Child and Möllering (2003) give support for a positive relation between trust and performance.

Generally, motivational reasons can explain the link between trust and performance. Trust makes it possible to take risks in the relationship, which leads actors to utilize the system in ways that might raise performance in a positive way. For example, when actors observe through the system that they have reached their targets and goals, and recognize that actors intend to keep their promises and have good intentions, individual performance will rise. That might be so because actors are more motivated to achieve and perform because of the high trust they have in each other, i.e. a normative frame is established in the relationship where it becomes important to perform. Trust makes it harder to break that norm, which becomes a motivational factor for raising performance. Proposition 12 thus states:

PROPOSITION 12. *The higher the level of rational and emotional trust, the higher is the level of individual performance.*

9.3 In summary

Chapter 9 described and explored a general higher-order model with aggregated categories of management accounting and trust dimensions. The model suggested how to bridge the gaps identified in the management accounting and trust literature. The model linked factors that until now have not been associated and combined.Trust in management accounting (system trust) is directly linked to management accounting information and indirectly to management accounting processes and to trust between individuals. The model described and explained how and why trust in management accounting is important for trust between individuals in relation to management accounting information and processes. The model showed how trust and management accounting are associated in a social and cognitive process between individuals when they interact in management accounting activities. The model underpinned factors and associations with extended and deeper theoretical mechanisms.

10 CONCLUSIONS AND CONTRIBUTIONS

The results of this study show that the literature on management accounting and trust consists of three research areas: performance evaluation within organizations, interorganizational relationships and the implementation and change area. These three areas have studied trust as an important concept in relation to management accounting.

The first area, performance evaluation within organizations, constitutes the oldest area. The literature shows that performance evaluation refers to management accounting activities utilized in performance evaluation and reward situations within organizations. The literature describes and explains how individuals in organizations are affected by management accounting in day-to-day practices and form mental attitudes towards management accounting to develop trust.

The second area, the interorganizational area, constitutes the largest research area. Generally, the literature in this area shows that when organizations opt for different control structures, trust is needed as a complement to control. In that respect, management accounting is utilized as a control mechanism.

The third area is related to change and implementation aspects. The result in this area shows that change and implementation processes are problematic in organizations, but organizations try to overcome tensions and conflicts in different ways. Trust is often a factor that explains a successful introduction and implementation of management accounting.

Further, this thesis shows that in each area different theories and perspectives are drawn on based on different assumptions. Different models and concepts have also been utilized and derived from these theories and perspectives. The conclusions and contributions related to models, factors, theories and perspectives are discussed next.

10.1 Part 1 - A comparative analysis of meaning and models

The area of management accounting and trust has generally been clouded by confusion and a lack of clarity concerning the meaning of both trust and management accounting as well as confusion around models and model types (Caglio & Ditillo, 2008; Free, 2008; Tomkins, 2001, Meira et al., 2010). In order to elaborate on these problems the first purpose was to describe and compare the meanings, models, theories and perspectives related to management accounting and trust, i.e. to identify differences and similarities between studies concerning meanings, models, theories and perspectives.

The conclusion and contribution in this part is separated into five sections: the meaning of management accounting factors, the meaning of trust, the confusion and potential conflicts related to models, differences and similarities within different theories and perspectives and concluding remarks.

10.1.1 Management accounting meaning

Many different terms related to management accounting features and activities are found in the literature. However, these different terms in some instances refer to similar phenomena and address similar theoretical features. When taking a closer look at some of the definitions of these concepts, the similarities in meanings are surprising. Some studies refer to similar theoretical features, and relate these features to trust in a similar way despite using different theoretical lenses and settings. Compare, for example, Langfield-Smith and Smith (2003) in the interorganizational area with Lau and Sholihin (2005) in the area of performance evaluation within organizations. These two studies use different terms but conceptualize management accounting in a similar way. They refer to how individuals perceive management accounting information and both conclude that 'clear' and 'specific' measures are important features of management accounting in relation to trust.

One important conclusion here is that studies in different areas actually refer to similar theoretical features of management accounting, i.e. they define management accounting in a similar way, although they use different terms. This conclusion points out the common ground between studies, which is favorable for integrating the research results. In other instances, the same term may refer to different categories and features, which must be kept apart from each other. For example, the term control often refers to the utilization of management accounting information both within and between organizations (cf. Coletti et al., 2005; Dekker, 2004), but it can also refer to management accounting processes per se (Hartmann & Slapničar, 2009).

The overall conclusion is thus that although many different terms are found in the literature, similarities between factors are more salient than are differences. Five categories of management accounting dimensions and features are identified in the whole area. These are summarized next.

The first category is the level of the relevancy of management accounting information, which is related to informational characteristics. The second category refers to the level of acceptable and legitimate management accounting processes, which instead refers to the whole management accounting process and management accounting activities carried out in daily practices within and between organizations. The third category refers to the level of favorable management accounting system use, which concerns the intentional use of management accounting by the responsible individuals. The fourth category refers to the level of favorable management accounting implementation processes, specifically implementation procedures. The fifth category refers to the dimension of management accounting change. This category is often an outcome factor, implying that the results of certain processes might be a changed management accounting practice. These categories are fruitful to keep separated, as they have different meanings and thus they are defined by different theoretical denominators. Consequently, the conclusion in this part contributes to the area by separating categories and theoretical features that refer to different aspects and dimensions of management accounting.

10.1.2 Trust meaning

As for trust, there are also similarities and differences. Some trust factors must be separated, because they refer to different features of the phenomenon of trust. However, other trust factors are rather similar even though they use different terms.

First, it is fruitful to distinguish between 'trust in management accounting' and 'trust between people'. Trust in management accounting refers to trust in accounting information and processes, while trust between people refers to trust between individuals within or between organizations. Trust between organizations and trust between individuals within the organization are often defined in the same way, even though the trust concept is analyzed at different levels of analysis. It is always individuals who trust even if the person or people they trust are their managers or partners in another firm. When trust perceptions are assumed to be shared by whole organizations and the object of trust is another organization, researchers use the term interorganizational trust (cf. Zaheer et al., 1998a). Consequently, interpersonal trust and interorganizational trust may refer to the same theoretical features, although the object of trust may differ.

Further, a rational type of trust between people can fruitfully be distinguished from an emotional type. Rational trust refers to rational and cognitive assessments of the level of trustworthiness a trustor has for a given trustor, while emotional trust refers to the affective bonds between people formed in relationships between two parties over time. The cognitive, psychological and rational perspectives evident here are separated from a more social interactional perspective.

Thus, the meaning of trust is rather clear and consistent. There are only a few instances where trust means something different from other studies.

Two studies define trust very differently from other studies. One refers to the 'length of a manager's tenure' (Gibbs et al., 2004) and one to 'a contractual agreement to cooperate' (Chenhall & Langfield-Smith, 2003). Further, the conceptualization of trust from only one party in a relationship is a snapshot of how that party finds another party at a given point in time. This is a static perspective and gives a weak understanding of the past and the future, i.e. how and why trust has been established and how it develops. Such perspectives offer only a linear and static picture of a certain trust level and trust type at a certain point in time.

The conclusion here is that three main trust categories must be separated from each other, i.e. rational trust, emotional trust and trust in management accounting (system trust). However, also concluded here is that similarities are more salient than differences, which is a favorable prospect for synthesizing the area. Overall, this contributes to the research area by separating different trust categories that refer to different features of trust.

10.1.3 Models

When it comes to models, as other researchers have found (e.g. Free, 2008), there is confusion around the types of models applied. The area has depicted trust and management accounting in different ways, i.e. different model types describe the relationships between factors. Generally, these different types are: additive linear models (e.g. Otley, 1978; Seal et al., 1999), intervening variable models (e.g. Lau & Buckland, 2001) independent interaction models (e.g. Ross, 1994; Magner et al., 1995; Gibbs, et al., 2004). Direct linear models are most common, while some studies have modeled management accounting and trust in a bidirectional way (Vélez et al., 2008).

Indeed, in most instances these models complement each other. Only in a few instances do they contradict each other. Inconsistencies between models have been isolated to different meanings of trust or to conflicting ways of modeling trust in relation to management accounting. On one hand, trust is seen as dependent on management accounting information (e.g. Lau & Buckland, 2001). On the other hand, it is seen as independent of management accounting information (e.g. Ross, 1994). In conclusion, this inconsistency could be meaningful to investigate further.

Moreover, different theories and perspectives assume different time intervals between factors. A unidirectional model conflicts with a model that assumes a longer interval and a reciprocal relationship between factors. For example, strict economic reasoning assumes that control is optimal when management accounting has a positive effect on trust in a unidirectional static way. Other more relaxed assumptions about equilibrium and optimal management accounting (and control) instead assume that management accounting and trust over time affect and reinforce each other. Conclusions and contributions concerning assumptions and theories are discussed next.

10.1.4 Theory and perspectives

The literature on management accounting and trust has utilized different theories and perspectives. Owing to these different theories and perspectives, different model types, management accounting and trust factors have become important. A contribution is that the thesis shows what each perspective is able to explain. Specifically, the thesis contributes through a description of the basic assumptions about organizations, human motivation and information found in the management accounting and trust literature. Further, it describes how different factors are derived and operationalized from these assumptions, which shows the possibilities for integration.

Three main perspectives are visible in the area. First, an economic reasoning is visible, which draws on TCE or AT reasoning. The model of man includes an assumption of a self-interested economic actor who mostly is striving for economic wealth and thus is foremost motivated by extrinsic rewards. Second, cognitive psychological reasoning is evident. Here, the model of man includes a homeostatic human who strives to be in mental balance, but mostly is in a state of mental inconsistency and thus is foremost motivated by intrinsic psychological rewards. Finally, social reasoning is evident, which states that the wealth of others is important as well as one's own wealth. Upholding social norms is also important from the social perspective. These individuals are mostly motivated by intrinsic rewards.

Even though different assumptions of motivation are visible (i.e. economic, psychological and social), the basic assumptions of goal divergence and bounded rationality are common denominators in the literature. Further, and importantly, the literature sees ways to overcome information constraints to create unity and balance. Trust plays a central role in motivating individuals to create unity and balance. The strengths and weaknesses of these different perspectives are identified next.

From a strict economic perspective, trust is needed in order to account for the remaining uncertainty that management accounting and control cannot account for alone. Management accounting information is important for rational trust to develop, and the model type is restricted to a unidirectional model between management accounting information and trust. However, this perspective does not explain how and why trustworthiness is assessed and how trust develops.

A cognitive psychological perspective instead accounts for such explanations. From a psychological cognitive perspective, trust develops because of individuals' perceptions and reactions to management accounting information, which they draw on when they assess trustworthiness. Here, trust is of a rational, cognitive character and mostly refers to one individual's trust in another individual, organization or management accounting practice.

From a social perspective, other management accounting dimensions come to the fore, such as management accounting processes and use. In management accounting processes, trust develops from a platform that gives individuals an arena for interaction. Trust between individuals is seen as having an emotional character where trust develops between actors when social values and norms are shared. The intentional use of management accounting has the ability to affect how actors form perceptions towards management accounting. Trust in management accounting is also visible from a more social perspective. This model type is bidirectional where management accounting and trust affect each other over time.

Different theories and perspectives also focus on different functions of management accounting. In strict economic reasoning, control is optimal and reassured when management accounting leads to trust in a direct linear way. The function of management accounting is thus only pure control. Other theories might see other functions for management accounting, such as coordination, planning or learning. In other theories and perspectives, trust and management accounting might instead affect each other over time in a bidirectional way, which point outs the alternative functions for management accounting and trust.

Weaknesses within different perspectives motivate the integration of different perspectives. The knowledge gaps identified in Chapter 8 can thus be seen as a consequence of perspectives that have not been integrated. However, different perspectives have in common their basic assumptions about information constraints and divergent goals which arguably makes integration possible if some assumptions about human motivation are relaxed.

The literature on management accounting and trust delves into a regulative functional paradigm. It states that conflicts between organizational and individuals goals might be present. In addition, conflicts between different parts of the organization might be visible. These conflicts will arise within individuals' mental states or between groups in the organization. Moreover, when studying interorganizational cooperation, conflict is perceived as being between two dyadic partners. In order to regulate these conflicts individuals and organizations need mechanisms that can create unity, balance and a functional outcome. Owing to bounded rationality and information constraints, these mechanisms need *trust* to account for the remaining uncertainty. The literature on management accounting and trust thus draws on the same set of *basic* assumptions, which arguably makes an integration of the literature possible and meaningful.

In sum, in cognitive psychology, homeostatic humans experience mental inconsistency and try to overcome mental constraints motivated primarily by intrinsic cognitive rewards. On this journey, they assess trustworthiness and experience trust. This adds to economic reasoning where trust is only needed because of incomplete control. A cognitive explanation states how the trust creation process happens, which strict economic theory cannot explain. However, static economic and/or psychological reasoning is weak at explaining what happens over time between individuals and organizations in the processes of gaining control. In this respect, we need a social perspective, because individuals and organizations are not isolated from other individuals or organizations. From the social perspective, a social individual interacts and develops shared values and norms, which leads to emotional trust. In this process, a purely self-interested human also shows interest in others' wealth. Here, we need to relax the assumption of a purely economic self-interested human motivated only by economic extrinsic rewards. However, if economic, psychological and social motivation are all found to be important, we can include consideration for one's own as well as others' wealth, including cognitive 'wealth' (i.e. mental balance), in the same model. If all three perspectives are integrated, a more nuanced and less restricted model of man can come to the fore.

10.1.5 Higher order constructs and model

A synthesis of concepts was carried out in order to construe higher-order constructs, which can generalize concepts and associations. This is referred to as 'synthesis by integration' in Rousseau et al.'s (2008) terminology. Higher-order constructs are related to each other and combined into higher-order models. 'Synthesis by explanation' is then allowed by theorizing about and explaining the relationships between higher-order constructs at a higher level of abstraction.

The aggregate of trust factors and management accounting features contributes to the literature by identifying what studies have investigated at a general level. These aggregated factors are thus useful in order to draw conclusions about the knowledge and understanding of management accounting and trust at a more general level. Consequently, the study contributes by providing an understanding of the whole area in an integrated way and at a higher level of abstraction. The study facilitates a critical review of the whole area at a more general level. A contribution is thus that separate studies are abstracted to a higher level, which allows us to compare them.

The aggregated factors and associations are utilized in Part 2 of the thesis, where critical reviews are carried out to identify shortcomings, weaknesses and strengths in the area, and finally suggest knowledge gaps in the area. The contributions and conclusions from this part of the thesis are discussed next.

10.2 Part 2 – A critical review

Critical reviews were carried out with the aim of identifying knowledge gaps and weaknesses in the literature (Chapters 7 and 8). The contribution to the literature is a review that identifies relationships between trust and management accounting and what kinds of general explanations we have. Further, weaknesses and six main gaps were identified in the literature. Generally, these knowledge gaps concern the ambiguity related to some of the relationships between factors, but also weaknesses concerning explanations for why factors are assumed to be related. These gaps are summarized next.

The economic and psychological perspectives have focused on the characteristics of management accounting information per se and management accounting processes as such, which are important for trust to develop (Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009). However, the review also shows that how actors make use of management accounting and its information in certain intentional and reflexive ways affects the relationship between management accounting and trust (Johansson & Baldvinsdottir, 2003; Seal et al., 2004; Busco et al., 2006). Although management accounting use has scarcely been investigated in the literature, it might be fruitful to consider it in the analysis together with other management accounting factors. How people make use of management accounting has an important effect on how people involved in management accounting situations trust management accounting in the first place (i.e. system trust). When management accounting is used in a highly favorable way, for example in a helping and confidence inspiring way, people will develop high trust in management accounting. The first gap was thus defined in the following way:

1. How is 'management accounting use' related to trust and management accounting information/processes?

The review also identifies system trust as an important factor that can be taken into account in the analysis together with other factors. However, it concludes that the relationship between system trust and personal trust is lacking in the literature. Further, associations between system trust and management accounting information/process characteristics are also lacking. Consequently, there is a knowledge gap in the literature concerning the relationships between system trust, personal trust and other management accounting dimensions. This knowledge gap is a consequence of the separate and different perspectives that have not been taken into account simultaneously until now, but would be fruitful to investigate further. Consequently, the literature review shows that we have a weak understanding of how and why an intentional use of management accounting and trust in management accounting are related to other management accounting dimensions such as information and process features as well as to trust between people. The second gap was therefore defined in the following way:

2. How is trust in management accounting related to trust between people and organizations in a management accounting context and implicitly to management accounting information and processes?

The review also identified a lack of factors that can explain variations in management accounting information characteristics. Management accounting information has been modeled as an independent factor that affects other factors, but the literature lacks explanations for variations in this factor. The third gap was defined in the following way:

3. What kinds of factors make people form favorable perceptions of accounting information?

Thus far, the management accounting literature has discussed and elaborated on different trust types; however, studies have mainly shown that although different trust types play a role in a management accounting context, there is still a gap in the literature concerning how they are related to each other. Trust emerges, evolves and develops in a relationship and its character shifts and changes over time. Different trust types are thus assumed to be associated with each other. However, the accounting literature has not been able to show how different trust types are related to each other. This lack of association was identified as a knowledge gap in the literature. The fourth gap was therefore defined in the following way:

4. How do different trust types relate to each other, i.e. how are rational and emotional trust related in a management accounting context?

The review concludes that the literature is consistent concerning the association between information features and process features, and that these factors in turn affect trust (Lau & Buckland, 2001; Lau & Sholihin, 2005; Hartmann & Slapničar, 2009). However, in this respect the theoretical explanations for why this happens and what kinds of underlying processes are at work when people utilize management accounting for 'trust reasons' can be improved. Hence, one major weakness in the literature is that we need to improve the explanation of why trust establishes and develops in relation to management accounting. The fifth gap was thus defined in the following way:

5. Related to management accounting features, how and why do individuals form trustworthiness judgments and subsequently start to create and later develop trust in each other?

In addition, the review concludes that management accounting and trust has foremost been depicted in a static and unidirectional way (Langfield-Smith & Smith, 2003; Dekker, 2004; Emsley & Kidon, 2007; Coletti et al., 2005). Some studies show that management accounting affects trust, while others show that trust affects management accounting. The majority of these unidirectional links show that management accounting affects trust; however, these links are called into question by studies showing the opposite (cf. Luft & Shields, 2003).

The relationship between management accounting and trust can be depicted in a bidirectional way, where management accounting and trust affect each other over time. In a relationship, the level and type of trust will change, as trust is not constant; it changes and shifts (Tomkins, 2001). Further, the features of management accounting play a role in this dynamic process. Trust and management accounting factors can fruitfully be modeled in a dynamic way. Until now, we have a weak understanding of the dynamic relationship between management accounting and trust. The last knowledge gap in the literature thus concerns how and why management accounting changes and shifts character in a dynamic fashion related to a trust concept, which also might shift and change over time in a dynamic fashion.

6. How does management accounting shift and change in a dynamic fashion, together with and in relation to, a shift and change in trust, implying a potential to conceptualize different functions of management accounting and trust.

These six gaps can be seen as a consequence of the narrow focus on a specific perspective, i.e. different and separate perspectives that until now have not been integrated. Different and separate perspectives explain the phenomenon of trust to different extents. A major weakness in the literature is thus that each perspective alone only partly explains trust. If an integration of perspectives were allowed, a more nuanced understanding of trust in relation to management accounting can come to the fore. Part 3 suggests some ways to bridge the weaknesses and knowledge gaps in the literature. Next, the contribution within this part is discussed.

10.3 Part 3 - Model development/12 propositions

The contribution in this part is a synthesis by integration and explanation, which involves extended theorizations and elaborations. Specifically, based on the review in Part 2, a model with 12 suggestions/propositions for how to bridge the gaps identified in the area is formulated and elaborated on. The model aims at depicting management accounting and trust in a dynamic fashion. This contributes to the literature by adding cognitive reasoning to social reasoning. An economic perspective is implicit in the basic assumptions in the model, together with a relaxation of the strong assumptions of self-interest. A consideration for others' wealth is seen together with a consideration for one's own wealth. The contribution this dynamic model offers to the literature is elaborated on next.

First, the dynamic relationship between trust and management accounting involves aspects and dimensions of management accounting and different trust factors. Some of these factors are conceptualized as antecedents of the dynamic relation between management accounting information/processes and rational and emotional trust. The intentional and favorable use of management accounting is proposed to cause high levels of trust in management accounting. This association is derived from a social perspective, which has not been associated with a pure cognitive or economic perspective until now. The integration of these perspectives implies specifically that trust in management accounting is associated with the perception of accounting information, due to high trust in management accounting, as being highly relevant.

These links address part of Gap 1 and Gap 2, i.e. how management accounting use and trust in management accounting is related to management accounting information/processes and to trust between people. Further, these associations also address Gap 3, which explains that trust in management accounting is an important explanatory factor for highly relevant management accounting information perceptions.

The general contribution here to the management accounting literature involves a suggestion for how to bridge the gap between system trust and personal trust (cf. Baldvinsdottir, 2011; Vélez et al., 2008). Subsequently, management accounting information features affect both rational trust and accounting processes. Management accounting processes also have an important effect on the ability to decide on a trustee's trustworthiness. In this phase of the model, trust has been established and it is now having a feedback effect on information characteristics. Here, the utilization of management accounting information will change, i.e. information might be utilized for alternative reasons. Further, management accounting information and processes will cause the character of trust between individuals and organizations to shift to a more emotional character. These links address Gap 4, namely how different trust types are related to each other, as well as Gap 5, i.e. related to management accounting, how and why individuals form trustworthiness judgments and subsequently start to create and develop trust in each other. These extended theorizations on how and why trust between individuals and organizations are formed and developed in relation to management accounting contribute to the literature in this part of the thesis.

Overall, the conclusion here is that management accounting and trust depend on each other over time in a bidirectional way. Further, management accounting use and system trust are antecedents of such a dynamic interaction, and thus they are integrated into the model with other management accounting dimensions and trust types. Trust in management accounting is proposed to be an important factor affecting how the main element of management accounting is perceived and are drawn on, i.e. management accounting information. This also meets the call in the literature to extend our knowledge and understanding of how trust and management accounting develop dependent on each other in a dynamic fashion (Tomkins, 2001).

10.4 Directions for future research

In accordance with the underlying arguments in the model presented in Chapter 9, directions for future research can now be given. First, each proposition constitutes a brick in the puzzle for operationalizing and studying the phenomenonon empirically. These propositions are suggestions for future researchers to test empirically. Alternatively, they can function as starting points for researchers when they theorize about trust and management accounting issues. The model and propositions can thus be seen as suggestions and ideas that future research can elaborate on with extended reasoning. The types of propositions suggested in this study have a rather general nature. Future research can arguably specify research questions and propositions further. The propositions suggested here must undergo a thorough operationalization process in order to be testable, where specific hypotheses must be defined. One issue of importance in this respect is that trust is a hard phenomenon to capture empirically, but this should not hinder researchers in studying this phenomenon. One suggestion for future research to capture trust empirically is to be cautious when operationalizing different trust types, implying that separate and different trust types cannot be captured with the same types of questions. General questions, typically utilized in trust questionnaires, such as 'do you trust your manager?', must also be specified further.

Further, the different functions of management accounting information and processes could also be investigated in relation to different types of trust. Such studies could add to our knowledge and understanding about a strict control function and might investigate management accounting and trust in an environment where they do not only serve a control function. Some studies in the extant performance evaluation literature argue that the fundamental purpose behind performance measurement is changing, implying a diminishing emphasis on control and increased emphasis on learning. Bititci et al. (2012) write that '*[…] the behaviour of organizations are being influenced through social interaction and relationship through peer-evaluation rather than bureaucratic processes*' (p. 15). This point to other functions and the request for adding perspectives and theories are in line with the propositions in this thesis. Management accounting and trust should be meaningfully studied as a social phenomenon '*where behaviours (organizational and individual) are shaped by the values and perceptions of the individuals and communities within which the individual operates*' (Ibid).

Finally, the management of organizations or interorganizational relationships, including targeting, evaluation and reward mechanisms, cannot only focus on monitoring and control, or prevent dysfunctional or opportunistic behavior. It most also be about taking advantage of learning and innovation opportunities and developing organizational activities and tasks (cf. Huemer, 1998). The model and propositions suggested in Chapter 9 point out additional perspectives that can account for such developments where management accounting and trust play a central role.

10.5 Practical implications

In this thesis, the shortcomings, weaknesses and strengths of different perspectives on management accounting and trust have been outlined. A strict control perspective within TCE or AT reasoning cannot alone capture and explain the nature and possibilities of trust in relation to management accounting. A more comprehensive perspective tries to deepen our understanding of the potential of trust in a management accounting context. This more comprehensive perspective is meaningful for both academics and practitioners. Practitioners working with management accounting practices can learn through this study the importance of differentiating between aspects of management accounting in relation to trust building efforts. This study emphasizes different aspects of trust in relation to different management accounting dimensions, which is important for practitioners to visualize whether they work in relationships within an organization or between organizations. This study can help both academics and practitioners become aware of management accounting as a mechanism for trust building.

10.6 Study limitations

Two main limitations must be recognized. The first one is related to the general framework utilized in combination with the general aim to synthesize and integrate the research results. The second limitation is related to methodological considerations and the specific methods chosen.

The overall aim in this study was to synthesize and integrate research results in the area using the framework provided by Luft and Shields (2003). This framework allows us to compare factors, models, levels of analysis and theories and perspectives, while other aspects are not emphasized. Therefore, what could such other aspects be? For example, this thesis has not emphasized differences concerning methodological approaches. Different methodological approaches are of course utilized in different studies but these were not explored and compared systematically in this thesis. This study is consequently weak in this aspect. If we gain an understanding of the methodological dimension, we might also see what kinds of methodologies we need to capture certain aspects. Other aspects that this study misses include the 'when', 'where' and 'who' questions, implying that the ‘what’ and ‘how’ questions are always situated in a certain specific context, both in time and in space. The integration and synthesis of research results in this thesis are characterized by the general problem of ‘context stripping’ (see Rousseau et al., 2008). This means that a context-specific understanding of different factors and their relationships are not offered. This is a major limitation in studies of this kind. However, the reader will have a general knowledge of what factors and models are generalizable across different areas, which thus allows a comparison between research results.

Some limitations of the specific selection method must also be considered here. Specifically, the selection method has its limitations. In order to capture the largest number of articles possible that met the inclusion criterion defined at the outset, different methods were utilized. However, as Chapter 2 described, there is a risk that some relevant articles were missed in the search. I am fully aware of that risk, but also believe that the main results, conclusions and contributions in this thesis would be approximately the same even if more articles were included in the study.

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Appendix A

Table. Journals and search hits.

	Journal	’Trust’ in abstract, key word, title	‘MA and trust’ in fulltext	’Trust’ in fulltext
1	Accounting, Organization and Society	22	447	459
2	Accounting, Auditing & Accountability Journal	28	401	783
3	The Accounting Review	10	2	13
4	Journal of Accounting Research	4	98	121
5	Journal of Accounting and Economics	4	102	109
6	Contemporary Accounting Research	5	126	133
7	Accounting and Business Research	11	294	330
8	Journal of Business Finance and Accounting	19	280	310
9	Management Accounting Research	19	117	117
10	Review of Accounting Studies	1	22	22
11	Journal of Management Accounting Research	2	33	33
12	Critical Perspectives on Accounting	19	267	292
13	The British Accounting Review	9	88	104
14	Journal of Accounting an Public Policy	2	104	112
15	Journal of Accounting Literature	0	19	19
16	Behavioral Research in Accounting	6	37	39
17	Accounting Horizons	14	119	127
18	Journal of Accounting, Auditing & Finance	-	6	6
19	The European accounting review	1	153	166
20	Abacus	7	147	167
	Sum:	185	2862	3462

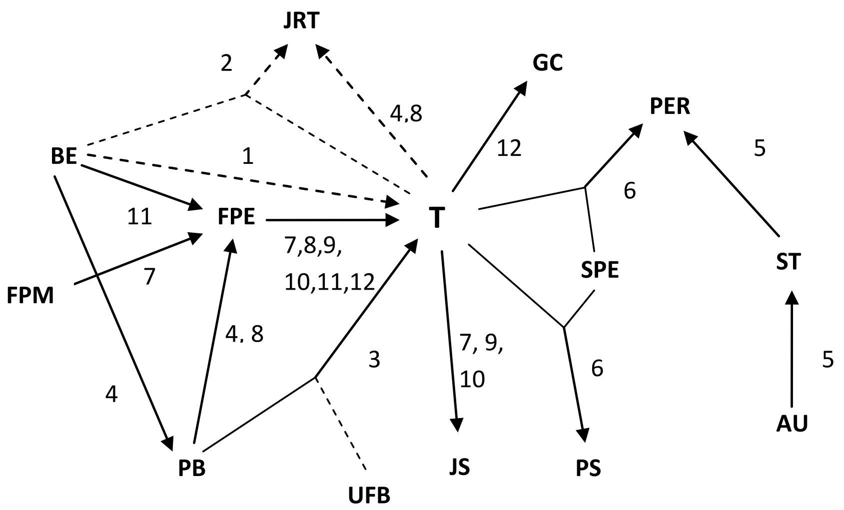
Appendix B

Table. Journals, search hits and selected articles.

	Journal	'Trust' in Abstract, key word, title	**Amount of articles finally selected**
1	Accounting, Organization and Society	22	**11**
2	Accounting, Auditing & Accountability Journal	28	**2**
3	The Accounting Review	10	**2**
4	Journal of Accounting Research	4	**1**
5	Journal of Accounting and Economics	4	
6	Contemporary Accounting Research	5	**1**
7	Accounting and Business Research	11	**1**
8	Journal of Business Finance and Accounting	19	
9	Management Accounting Research	19	**13**
10	Review of Accounting Studies	1	
11	Journal of Management Accounting Research	2	**1**
12	Critical Perspectives on Accounting	19	
13	The British Accounting Review	9	**2**
14	Journal of Accounting an Public Policy	2	
15	Journal of Accounting Literature	0	
16	Behavioral Research in Accounting	6	
17	Accounting Horizons	14	
18	Journal of Accounting, Auditing & Finance	-	
19	The European accounting review	1	
20	Abacus	7	**1**
	Sum:	185	37

Appendix C – Maps

Map A -Performance evaluation and trust



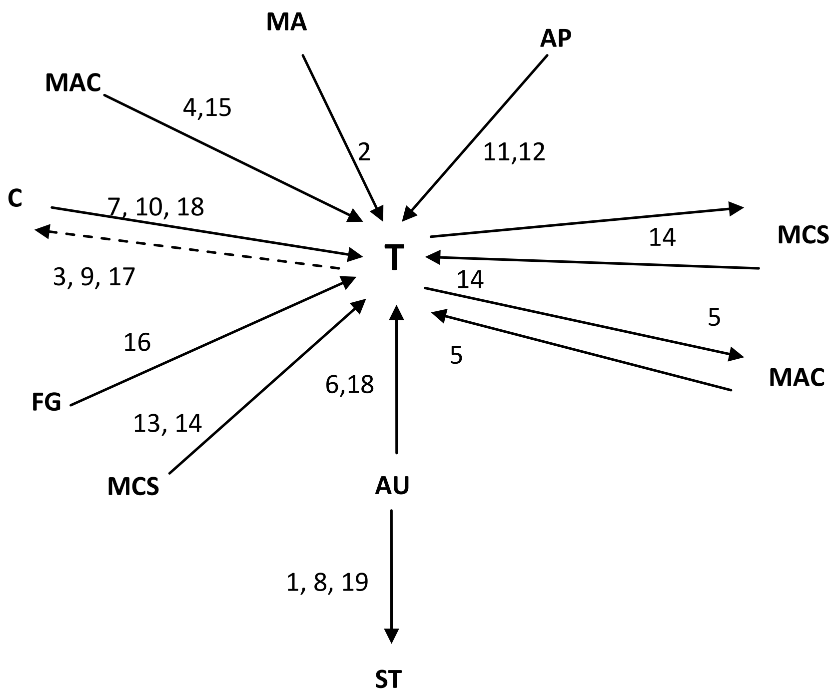
Variable identification

AU	Accountants use of accounting information
BE	Budget emphasis by superior in evaluating a subordinate
FPM	Financial performance measures
FPE	Fairness in performance evaluation procedures
GC	Goal commitment
JRT	Job-related tension
JS	Job satisfaction
PS	Pay satisfaction
PB	Participative budgeting
PER	Performance
PF	Procedural fairness in performance evaluation
SIPE	Successful performance evaluation
SPE	Subjectivity in performance evaluation
ST	System trust
T	Trust
UFB	Unfavorable budget

Research

1. Otley (1978)
2. Ross (1994)
3. Magner, et al. (1995)
4. Lau & Buckland (2001)
5. Johansson & Baldvinsdottir (2003)
6. Gibbs et al. (2004)
7. Lau & Sholihin (2005)
8. Lau &Tan (2006)
9. Lau et al. (2008)
10. Sholihin & Pike (2009)
11. Hartmann & Slapničar (2009)
12. Sholihin et al. (2011)

Map B – Interorganizational relationships



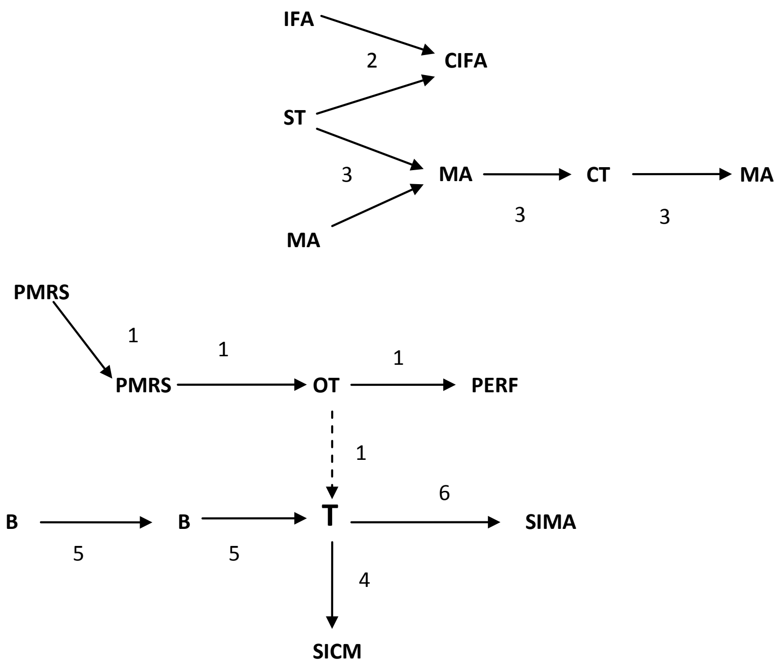
Variable identification

A	Accounting
AP	Accounting practices
AU	Use of accounting
C	Control
FG	Formal Governance
MA	Management accounting
MAC	Management accounting control
MCS	Management control system
ST	System trust
T	Partner trust

Research

1. Seal & Vincent-Jones (1997)
2. Seal et al. (1999)
3. Groot & Merchant (2000)
4. Langfield-Smith & Smith (2003)
5. Dekker (2004)
6. Håkansson & Lind (2004)
7. Coletti et al. (2005)
8. Mouritsen & Thrane (2006)
9. Cuganesan (2006)
10. Emsley & Kidon (2007)
11. Free (2007)
12. Free (2008)
13. van der Meer-Kooistra & Scapens (2008)
14. Vélez et al. (2008)
15. Langfield-Smith (2008)
16. Neumann (2010)
17. Cäker & Siverbo (2011)
18. Johansson & Siverbo (2011)
19. Jeacle & Carter (2011)

Map C – Change and implementation



Variable identification

B	Budget
CIFA	Changed interfirm accounting
CT	Trust for change
IFA	Interfirm accounting
MA	Management accounting system
PERF	Performance
PMRS	Performance measurement & reward system
SICM	Successful implementation of cost management system
SIMA	Successful implementation of management accounting
ST	System trust
T	Trust

Research

1. Chenhall & Langfield-Smith (2003)
2. Seal et al. (2004)
3. Busco et al. (2006)
4. Coad & Cullen (2006)
5. Nor-Aziah & Scapens (2007)
6. Masquefa (2008)

Appendix D – Timeline over all studies

1978	Otley
1994	Ross
1995	Magner et al.
1996	
1997	Seal & Vincent-Jones
1998	
1999	Seal et al.
2000	Grooth & Merchant
2001	Lau & Buckland
2002	
2003	Johansson & Baldvinsdottir, Langfield-Smith & Smith, Chenhall & Langfield-Smith
2004	Gibbs et al.; Dekker; Håkansson & Lind; Seal et al.
2005	Lau & Sholihin; Coletti et al.
2006	Mouritsen & Thrane; Cuganesan; Busco et al.; Coad & Cullen
2007	Emsley & Kidon; Free; Nor-Aziah & Scapens
2008	Lau et al.; Free; van der Meer-Kooistra & Scapens; Vélez et al.; Langfield-Smith; Masquefa
2009	Sholihin & Pike
2010	Hartmann & Slapničar; Neumann
2011	Sholihin et al.; Johansson & Siverbo; Cäker & Siverbo; Jeacle & Carter

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3. wennblom, gabriella (2012): *Mapping Management Accounting and Trust. An extended literature review.*