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MATURITY OF BUSINESS CONTROLLING IN A GLOBAL TECHNOLOGY COMPANY

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ABSTRACT

Arto Roponen: Maturity of business controlling in a global technology company
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Business controlling's changing role towards a business partner has been receiving much attention in academic literature and organisations for many years. It is expected that by becoming more business-oriented business controlling is able to deliver more value to organisations and have greater contribution to achieving organisational goals. However, as this role change is a complex and highly contextual process, it seems that in many organisations business controlling is unable to succeed in achieving the desired level of business partnering. Further research is required regarding this increasingly business-oriented role of business controlling to enhance the understanding on how it can be successfully pursued in organisations.

This master's thesis studies the maturity of business controlling in a global technology company. The objective of the study was to analyse how business controlling supports top management work and decision-making, how it can improve the support and how its role can be developed towards the role of a business partner. The thesis was conducted as a qualitative single case study. The empirical data was collected through semi-structured interviews with the financial and business management of the case company.

The findings from the current state analysis show that the role of business controlling varies significantly within the organisation. In some respect business controlling is actively involved in the business and exhibits high business orientation especially at the highest management and business unit level. Issues regarding the lack of support from business controlling are most prevalent in the lower level management and when it comes to the local business controlling functions in different areas and countries. Other issues in the case company primarily relate to the information provision aspect of business controlling and the information systems and tools. These issues were found to significantly hinder the role development of business controlling in the case company.

Number of improvement areas were identified in the case company regarding people and roles, processes, information and reporting, systems and tools, and accounting and calculations. Various factors enabling and influencing the development of the business orientation of business controlling were also identified in the study as well as benefits that are expected to result from achieving the role of a business partner. Based on the results an action plan was developed for the case company for improving the support from business controlling to the business and for developing the role of business controlling towards an increasingly business-oriented role in the future.

Keywords: management accounting, decision-making, business control, business partner, strategic management accounting

The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

TIIVISTELMÄ

Arto Roponen: Business controllingin maturiteetti globaalissa teknologiayrityksessä
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Business controllingin roolin muuttuminen business partnerin suuntaan on saanut paljon huomiota tutkimuksissa ja organisaatioissa jo useiden vuosien ajan. Kehittymällä liiketoimintaorientoituneemmaksi business controllingin odotetaan pystyvän tuomaan lisää arvoa organisaatioihin ja vaikuttamaan vahvemmin organisaatioiden tavoitteiden saavuttamiseen. Tämä roolin muutos on kuitenkin monimutkainen ja erittäin kontekstuaalinen prosessi, minkä vuoksi monissa organisaatioissa business controlling ei onnistu saavuttamaan toivotun mukaista business partnerin roolia. Business controllingin yhä liiketoimintaorientoituneemmasta roolista on tarpeen tehdä lisää tutkimusta ymmärryksen lisäämiseksi siitä, kuinka kyseistä roolia pystytään onnistuneesti tavoittelemaan organisaatioissa.

Tämä diplomityö tutkii business controllingin maturiteettia globaalissa teknologiayrityksessä. Työn tavoitteena oli analysoida kuinka business controlling tukee johdon työskentelyä ja päätöksentekoa, kuinka sen antamaa tukea pystytään parantamaan ja kuinka sen roolia pystytään kehittämään liiketoimintaorientoituneemmaksi. Diplomityö toteutettiin laadullisena tapaustutkimuksena. Empiirinen aineisto kerättiin haastattelemalla kohdeyrityksen talouden ja liiketoiminnan johtoa.

Nykytila-analyysin perusteella business controllingin rooli vaihtelee suuresti organisaation sisällä. Tietyiltä osin business controlling osallistuu aktiivisesti liiketoimintaan ja on toiminnaltaan liiketoimintaorientoitunutta etenkin tuettaessa ylintä johtoa sekä liiketoimintayksiköitä. Business controllingilta saatava tuki on puutteellista pääosin alemman johdon kohdalla sekä paikallisten business controlling funktioiden osalta eri alueilla ja maissa. Kohdeyrityksen muut ongelmat liittyvät pääosin business controllingin informaation tuottamiseen sekä käytössä oleviin tietojärjestelmiin ja työkaluihin. Näiden ongelmien havaittiin vaikeuttavan merkittävästi business controllingin roolin kehittymistä kohdeyrityksessä.

Kohdeyrityksessä tunnistettiin useita kehityskohteita liittyen henkilöihin ja rooleihin, prosesseihin, informaatioon ja raportointiin, järjestelmiin ja työkaluihin, sekä laskentatoimeen. Tutkimuksessa tunnistettiin myös business controllingin liiketoimintaorientaation kehittämistä tukevia ja siihen vaikuttavia tekijöitä sekä business partnerin roolin saavuttamisesta odotettavia hyötyjä. Tulosten pohjalta kohdeyritykselle luotiin toimintasuunnitelma business controllingin liiketoiminnalle antaman tuen parantamiseksi ja business controllingin roolin kehittämiseksi liiketoimintaorientoituneempaan suuntaan tulevaisuudessa.

Avainsanat: johdon laskentatoimi, päätöksenteko, business control, business partner, strateginen johdon laskentatoimi

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PREFACE

This master's thesis project has been an exciting journey. While it has included both ups and downs, I can say with confidence that it has taught me a lot both professionally and personally. There are several people who deserve recognition for making this thesis project possible and for supporting me during the thesis.

I am grateful to the case company for giving me the opportunity to study such an interesting and important topic. I want to thank especially my thesis supervisor Tomi for the great guidance and support during the project. I am also thankful to everyone from the team for the encouragement during the thesis and for the great working environment. Furthermore, I want to thank all the people who participated in the interviews.

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LIST OF SYMBOLS AND ABBREVIATIONS

BC	Business controlling
BU	Business unit
ERP	Enterprise resource planning
HFM	Hyperion Financial Management
MA	Management accounting
MAS	Management accounting system
MCS	Management control system
SMA	Strategic management accounting

1. INTRODUCTION

1.1 Motivation

Today, business controlling is being called upon more than ever to deliver greater value to organisations (Jones & Glover 2018). The increasing business orientation of business controlling functions in organisations has been evident for many years (Jones & Glover 2018) and what has followed is that in many organisations business controlling is nowadays seen as an active business partner to the management (Davis & McLaughlin 2009; Wolf et al. 2015). The increased business orientation has been strongly driven by the demand for critical analyses and more comprehensive support to strategic and operational decision-making situations and activities (Jones & Glover 2018).

Accounting information has a highly prominent position in managerial work (Gerdin et al. 2014). The aspect of accounting information that focuses mainly on the internal activities of an organisation is known as management accounting (MA) (Cadez & Guilding 2008). The primary intention of management accounting is to support managers in fulfilling organisational objectives (Bhimani et al. 2015, p. 3) and the conventional view on the means for achieving this is through producing financial information for managerial purposes (Lindholm 2018). In order to achieve organisational goals, managers need to make different decisions which involve varying levels of uncertainty and risk regarding their outcomes (Certo et al. 2008). One of the most well-established rationales of MA is to support managers in these decision-making situations (Nielsen et al. 2015). However, decision-making is only one aspect of managerial work where MA has a facilitating role (Hall 2010) and as the role of business controlling in organisations has shifted towards increased business orientation so has MA evolved to encompass broader and more strategic notions in the context of managerial work.

The demand for business controlling to become more involved in business management and more comprehensively support managerial work and decision-making through value-adding activities and better information provides important areas for further research. Much research has been done on the role shift of business controlling (e.g. Burns & Baldvinsdottir 2005; De Loo et al. 2011) and its benefits to organisations (e.g. Byrne & Pierce; Wolf et al. 2015) as well as on the supporting role of MA in managerial work and decision-making (e.g. Hall 2010; Saukkonen et al. 2018) and in strategic management (e.g. Cadez & Guilding 2008). However, there is still a lack of awareness in many organisations about the touch points and potential benefits from business controlling becoming more involved in the business and adopting the role of a business partner (Davis & McLaughlin 2009). Furthermore, if business controlling is to engage in the value-adding

activities that are increasingly expected by the business management, those activities and the areas where business controlling can add more value in different organisational contexts must be identified. This calls for more research on the performance of business controlling functions in supporting business management in organisations.

1.2 Objectives and research questions

The motivation for the research emerged from the case company's desire to gain an understanding of the state of its finance and business controlling function in order to identify the potential gaps in performance and set the direction for closing these gaps in the future. At the beginning of the master's thesis, the case company was in the middle of a major system implementation project aiming to unify the systems and processes throughout the organisation. The company saw it as an opportune timing to conduct this study as changes to the ways of working were already expected for the finance and business controlling function and for the company as a whole. The study conducted in this master's thesis functions as a part of a larger finance transformation in the company.

The case company of this thesis is one of the business lines of a global corporation that provides technologies, automation and services for its customers. This business line focuses on supplying and developing automation and information management systems, applications and services. While the system implementation and finance transformation projects concern the corporation as a whole, the scope of this thesis is limited to the case company and its business controlling function.

The case company seeks to gain an understanding of the current state of the business controlling function's role in supporting top management work and decision-making. The study aims to identify through an in-depth current state analysis the areas that require improving. After the improvement areas have been identified the study aims to explore how the improvements can be pursued in the future. Furthermore, as the case company's finance and business controlling function seeks to become more business-oriented to better support the business, the study aims to explore the current level of business partnering in the company and to identify how the business controlling function can increasingly shift towards this role in the future. Based on the discussion on the objectives above the main objective of this master's thesis is to...

...analyse the maturity of the business controlling function of a global technology company in order to identify how it can purposefully support top management work and decision-making and become more business-oriented.

Based on this objective two research questions are formulated. The research questions this study seeks to answer are:

RQ1: How does the business controlling function of the case company support top management work and decision-making?

RQ2: How can the business controlling function become more business-oriented and support top management work and decision-making more effectively?

These research questions will be answered using both existing theory and empirical data collected through interviews. In order to answer the first research question, the aim is to conduct an in-depth current state analysis based on the interviews. When it comes to answering the second research question, the objective of this study is to develop a concrete action plan for the case company for improving the support from business controlling to business management and for developing the role of business controlling towards the role of a business partner.

1.3 Structure of the thesis

After this introduction the thesis is structured as follows. Chapter 2 presents the theoretical background for this thesis where the main theories of the research are discussed. The theoretical basis consists of a literature review which examines the existing literature and theories relevant to the objectives of this research. The literature review was carried out systematically by searching for scientific articles and books using relevant keywords. As the literature search progressed it was possible to identify the most prominent management journals concerning the topic of this research. Further studying of the different volumes of these journals made it possible to find additional relevant articles that had not surfaced during the initial keyword search.

First, chapter 2.1 concerns management accounting and control. This chapter discusses accounting information, accounting systems and management control, the roles of management accounting, and lastly the challenges related to management accounting information. Second, chapter 2.2 focuses on management accounting in managerial work and decision-making. Management accounting is initially discussed in the context of decision-making and how it is utilised in decision-making processes, after which the scope is expanded by discussing management accounting in managerial work more broadly. Third, chapter 2.3 discusses the strategic orientation of management accounting by first defining strategic management accounting and then discussing the perspectives on what actually constitutes strategic management accounting. Fourth, in chapter 2.4 developing the business orientation of business controlling is discussed, first its shift towards a business partner role, the various aspects enabling and influencing the role shift, and the consequences and benefits from increased business orientation. Chapter 2.5 then concludes the theoretical background and synthesises the theories discussed in the literature review.

After the theoretical background chapter 3 presents the research methodology of this thesis. The research philosophy adopted for this thesis follows interpretivism and the research is conducted as a single case study with an inductive approach. Furthermore, this chapter discusses the research process of this thesis in detail, the data collection phase and lastly how the collected data was analysed. The data for this research is qualitative and it was collected through eleven semi-structured interviews with the interviewees comprising of the top management of the case company from both financial and business management. The data analysis was done by comparing and summarising the collected interview data in tables.

Chapter 4 presents the empirical results of this research. In chapter 4.1 a current state analysis was done based on the results from the interviews. The characteristics of the role of business controlling in the case company were identified as well as the differences across the organisation. Furthermore, several issues were identified relating to the role of business controlling, information provision and reporting, and systems and tools in the case company. In chapter 4.2 the results concerning the improvement requirements and the notions related to developing the business orientation of business controlling are presented.

In chapter 5 the results of the thesis are analysed in more detail and reflected to the existing literature in order to answer the research questions. Furthermore, the recommended action plan for the case company that was developed based on the theory and results is presented. Finally, chapter 6 concludes the thesis by presenting the main findings and discussing how the objectives of the research were achieved while also providing answers to the research questions. Furthermore, this chapter presents the theoretical contribution of this thesis as well as its managerial implications. Lastly, the research is evaluated in terms of its limitations and directions for future research are discussed.

2. THEORETICAL BACKGROUND

This chapter presents the theoretical background for this master's thesis. This theoretical background is based on an extensive literature review concerning the research areas relevant to the purpose of the research and the research questions. First, chapter 2.1 discusses management accounting and control. Next, chapter 2.2 first discusses the role and utilisation of management accounting in decision-making, after which the focus is broadened to discuss management accounting in managerial work more broadly. After that, in chapter 2.3 the discussion moves from conventional management accounting to its strategic orientation. Next, chapter 2.4 discusses the development of business controlling function's business orientation. Lastly, chapter 2.5 concludes the theoretical background and synthesises the key elements identified from the discussion in the previous chapters.

2.1 Management accounting and control

This chapter discusses the topic of management accounting and control. First, accounting information and its rationale in organisations is discussed as well as the distinction between financial and management accounting information. Second, accounting systems and their characteristics are discussed along with management accounting's fundamental purpose in organisational planning and control. Third, the different roles and purposes of management accounting information in organisations are discussed more comprehensively. Finally, the chapter is concluded by discussing the challenges related to management accounting information and to its perceived usefulness and relevance among organisational actors.

2.1.1 Accounting information and management accounting

Accounting information is typically characterised as representing economic rationales in organisations (Gerdin et al. 2014). Meyer & Rowan (1977) establish its widespread significance as resulting from its association with good management and the economic benefits expected from relying on such information (Gerdin et al. 2014). Accounting information enables various actors to gain an understanding of an organisation by providing an overview of its affairs (Gerdin et al. 2014). Furthermore, it provides certain type of visibility to organisational events and processes, and by doing so creates a particular way of representing, understanding and acting upon them (Miller 2001). However, in addition to simply providing information about organisational life, accounting information significantly contributes to forming it (Gerdin et al. 2014). In other words, accounting information does not only represent but constitutes organisational reality (Fauré et al. 2010; Gerdin et al. 2014).

In practice accounting information is divided into management accounting and financial accounting. Management accounting concerns the measurement and reporting of financial information as well as other information types with the primary intention to support managers in fulfilling organisational goals. (Bhimani et al. 2015, p. 3) Therefore, management accounting is conventionally characterised as being internally oriented (Cadez & Guilding 2008). Financial accounting, in turn, is focused on external reporting and adheres to authoritative guidelines that dictate how organisations report their financials to outside parties (Bhimani et al. 2015, p. 3). An important contrast between these two distinctions is that management accounting is not subject to such guidelines prescribed by authoritative bodies that guide and restrict financial accounting (Bhimani et al. 2015, p. 3). In this thesis the focus of the research in terms of accounting information is primarily on management accounting. Therefore, accounting information, as discussed throughout this thesis, is related primarily to management accounting information.

Suomala et al. (2011) emphasise that management accounting constitutes of three different perspectives. The first perspective views the role of management accounting as providing support to decision-making processes. The rationale for the existence of management accounting comes from its ability to support the organisation in its activities and decision-making situations it faces. The second perspective sees management accounting as an organisational function. In this perspective it has a certain position and resources in the organisation. The third perspective establishes management accounting as set of calculation techniques. This view concerns the collection, refinement and provision of information regarding such areas as costs, profitability and investments. These different perspectives complement and interact with each other and all of them are vital in enabling effective management accounting in organisations. (Suomala et al. 2011, p. 11)

2.1.2 Accounting systems and management control

In order to provide management accounting information for different organisational purposes such as decision-making and control (Weißenberger & Angelkort 2011), the use of different systems is required. These systems are broadly referred to as management accounting systems (MAS). MAS may include formal information systems as well as more informal calculations and frameworks (Suomala et al. 2011, p. 16). Moreover, according to Chenhall (2003), MAS refers to the systematic usage of management accounting in achieving some goal. MAS is closely linked to and considered as a part of a broader term called management control systems (MCS) (Chenhall 2003; Suomala et al. 2011, p. 16). MCS refers to all the mechanisms used by decision-makers to direct and align an organisation's activities in order to achieve organisational goals (Suomala et al. 2011, p. 16). In addition to including management accounting systems, MCS is also considered to incorporate other controls that support managerial work (Suomala et al. 2011, p. 16) and guide employee behaviour (Bhimani et al. 2015, p. 561).

According to Bhimani et al. (2015, p. 561), the goal of management control systems is to improve an organisation's collective decision-making. MCS are essential to organising because they enable connections between the different and varying activities of organisational members (Ahrens & Chapman 2007). However, in order to be effective management control systems should be closely aligned to the goals and strategies of the organisation. Furthermore, they should fit the structure of the organisation and individual managers' decision-making responsibilities. (Bhimani et al. 2015, p. 561-562)

Today, MCS have evolved to embrace a broad scope of information instead of only focusing on providing decision-makers information that is formal and financially quantifiable (Chenhall 2003). This has resulted from organisations' challenges of managing under increasingly uncertain conditions (Chenhall & Moers 2015). There is greater emphasis on non-financial information, external information on customers and markets, informal controls, predictive information, and varieties of different mechanisms for decision support (Chenhall 2003). MCS are therefore increasingly complex as they encompass a more dynamic and open approach to management control and incorporate many connections and relationships which depend on the organisational and environmental context (Chenhall & Moers 2015).

An important and conventional objective of management accounting is to facilitate management's efforts in planning and control (Bhimani et al. 2015; Burns & Scapens 2000). The typical structure that planning and control follows and the purpose of management accounting system in the different phases is illustrated in Figure 1.

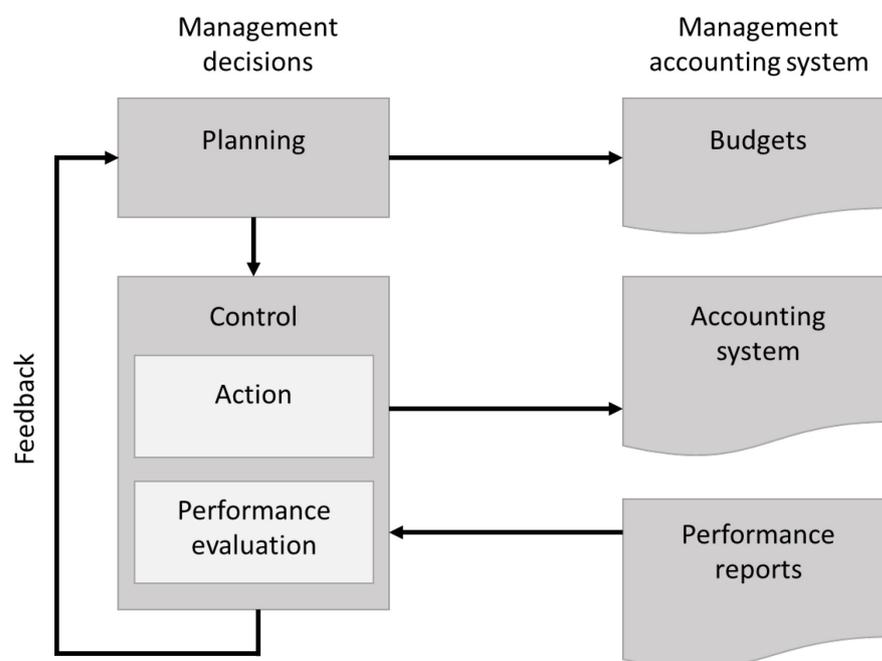


Figure 1. Accounting facilitating planning and control (adapted from Bhimani et al. 2015, p. 8)

In the planning phase management decides on some goal to be attained in the future. More specifically, planning incorporates the choosing of goals, predicting what will result from different ways of achieving the goals, and eventually deciding how the desired goals are to be attained. Here a budget is a financial and quantitative presentation of the plan of action and it functions as an aid in the plan's coordination and implementation. (Bhimani et al. 2015, p. 8) Control then is comprised firstly of the action that implements the planning decision. The transactions regarding the action are recorded and classified in accounting records in an accounting system. Secondly, control involves choosing on the performance evaluation as well as the feedback related to it. In performance evaluation performance reports compare budgets with actual results. (Bhimani et al. 2015, p. 8) Therefore, they are essential in identifying any differences, and they may spur further investigation to understanding the causes of the variations and exceptions. Feedback provided by the performance evaluation plays an important role in helping future decision-making. Here, past performance is examined by managers and alternative ways to improve future performance are systematically explored. (Bhimani et al. 2015, p. 9)

2.1.3 Roles of management accounting

Management accounting can be used in organisations in different ways and in different contexts depending on the objectives. As Nielsen et al. (2015) highlight, the roles and forms that MA takes can be dynamic, complex and varying in practice. In this vein, Gerdin et al. (2014) also note that accounting information may serve varying purposes in organisations. As already implied, managerial work provides the context in which management accounting information is used (Jönsson 1998). In this context, accounting information functions as a common financial language facilitating interaction between managers with different information requirements, knowledge, experience and backgrounds (Hall 2010). Therefore, it is capable of facilitating the integration and coordination of organisational activities (Wouters & Verdaasdonk 2002).

The defining feature and strength of accounting information is its ability to translate complex and diverse processes into a single financial figure (Miller 2001). However, it is also argued that rather than providing answers to decision situations simply through calculation, MA functions as foundation to communication which in turn leads to various actions (Quattrone 2016). What should also be noted is that although it is well established that financial information has a significant role in management accounting, this does not mean that non-financial information is excluded from it. In fact, management accounting information may comprise of not only financial but also non-financial and qualitative information in a highly aggregated or very detailed form (Bhimani et al. 2015, p. 4).

Furthermore, according to Hiebl (2018), management accounting has an important role when it comes to institutional change. It is an important resource in realising the need for change in organisations as well as in enabling it. In this context, management accounting may also be used for gaining support from organisational actors and drawn upon when

attempting to overcome potential resistance to change. (Hiebl 2018) Therefore, as highlighted by Lindholm (2018), management accounting is not limited only to the accounting function but it is undertaken by several organisational areas. Also, in addition to helping in identifying and implementing change, management accounting is often used to legitimise change and managerial action ex post (Hiebl 2018). Thus, accounting information is an important resource for understanding the decisions that have been made in the past and for making sense of the present to which those decisions have led (Ahrens & Chapman 2007).

2.1.4 Challenges related to management accounting information

Bruns & McKinnon (1993) highlight in their study that management accounting has an important role in improving and completing the information environment. Typically, information is collected, manipulated, aggregated and distributed to management in all functions of the organisation. Several reports are prepared and distributed systematically on scheduled basis to the managers that are assumed to find them useful and relevant to their work. (Bruns & McKinnon 1993) What should be noted is that based on their findings Bruns & McKinnon (1993) argue that the challenges in organisations are typically not related to the amount or extent of information available to managers but rather to its relevancy and usefulness.

There is a lot of discussion in literature about satisfying the needs of information users and on the perceptions of these users regarding useful management accounting information (Pierce & O'Dea 2003). According to Weißenberger et al. (2012), there is broad evidence in literature regarding so-called preparer-user perception gaps (e.g. Bruns & McKinnon 1993; Pierce & O'Dea 2003). These are caused by the differing notions in organisations on what constitutes relevant or good MA information (Weißenberger et al. 2012). Pierce & O'Dea (2003) found in their study that there may be significant differences on perceptions on the usefulness of MA information between managers and management accountants. Therefore, they stress that the usefulness and organisational validity of management accounting information can only be improved through the convergence of the perceptions of managers and business controlling regarding the nature, format and timing of the required information. (Pierce & O'Dea 2003)

In this regard, Bruns & McKinnon (2003) emphasise that the providers of management accounting information must focus on understanding the information that managers want and use. Weißenberger et al. (2012) argues that while a failure to do so may still result in achieving high technical validity for MA information, the lack of understanding on the perceptions of managers may often lead to MA information achieving only low organisational validity. This in turn may result in discontent or even disuse of MA information among managers. (Weißenberger et al. 2012) Therefore, Pierce & O'Dea (2003) highlight

the importance of close involvement by controllers in an organisation's management to ensure both the technical and organisational validity of MA information.

Furthermore, Weißenberger & Angelkort (2011) summarise that good management accounting information is typically characterised as being relevant, accurate, timely and reliable. They also highlight the importance of the information's consistency from user perspective. This aspect is essential in meeting the management's need to be provided by one version of the truth regarding organisational matters. (Weißenberger & Angelkort 2011) However, although fulfilling these qualities of MA information should be pursued, it is important to also note that management accounting calculations do not always become meaningful and powerful strictly because of their definitional correctness (Mouritsen et al. 2009).

What should also be noted is that the ability to use information differs among decision-makers (Butler & Ghosh 2015). These individual differences between managers influence the perceived usefulness and relevance of MA information. In this vein, Bruns & McKinnon (1993) found that MA information which is designed to serve particular managers is typically considered as more useful than information that seeks to serve many managers. Furthermore, Cardinaels (2008) states that there does not exist any unique way of presenting accounting information to managers that is better than the rest. Instead, in order to best serve and improve decision-making, the presentation and sophistication of accounting information may often require adjusting depending on the receiver's accounting knowledge. (Cardinaels 2008)

From the discussion above it can be concluded that organisations need to take several aspects into consideration when it comes to management accounting information. It seems that many of the challenges in organisations emerge from the insufficient interaction and communication between the providers and users of MA information. This suggests that through more active involvement in business management business controlling should be able to better understand the information needs of managers and thus be able to better support them. Furthermore, through increased interaction business controlling is better able to understand the individual differences and needs among the information users and adjust the provided information accordingly.

2.2 Management accounting in managerial work and decision-making

Management accounting has a highly prominent position in managerial work (Gerdin et al. 2014). In this chapter management accounting is first discussed in the context of decision-making which is well-established as one of the most fundamental purposes of management accounting in organisations. Secondly, two approaches for utilising management accounting in decision-making are discussed highlighting the reality that decision-making is often influenced by various organisational actors. Finally, the chapter is concluded by

discussing management accounting and its role in facilitating managerial work in a broader context.

2.2.1 Management accounting supporting decision-making

As stated earlier, in short management accounting means the producing of financial information for managerial purposes (Lindholm 2018). One of its well-established key rationales is to support the decision-making of managers (Nielsen et al. 2015; Saukkonen et al. 2018). Management accounting has an important role in decision-making situations that are strategic and organisationally complex (Nielsen et al. 2015). Moreover, MA provides a common base for judgements thus enhancing the effectiveness of decision-making situations, and it enables the creation of meaningful insights for decision support (Lindholm 2018). Furthermore, MA information helps managers to more clearly understand their tasks before making decisions (Chong 1996). As such, the success of management accounting is largely determined by whether managers perceive that the provided accounting information improves their decisions (Bhimani et al. 2015, p. 4).

An important characteristic of management accounting when it comes to decision-making situations is that it questions the rationality of the decision to be made (Lindholm 2018). Certo et al. (2008) state that much of the existing research concerning decision-making has assumed that decision-makers are rational. However, this assumption has been questioned and it is suggested that the decision-making of managers is influenced by so-called bounded rationality. (Certo et al. 2008) This essentially means that factors such as cognitive limitations, inadequate time and lack of information cause managers to make imperfect decisions (Simon 1957, cited in Certo et al. 2008). What results from this is the notion that managers should be able to make better and more rational decisions if they have access to all the required information. Management accounting has the capability to provide this information.

The decisions that managers are required to make often vary in uncertainty and risk (Certo et al. 2008). According to Hopwood (1983), management accounting has the potential to facilitate decision-making especially in environments that are characterised by uncertainty and doubt (Lindholm 2018). Under high uncertainty there is greater need for information and management accounting can play an important role in fulfilling this need (Chong 1996). Thus, management accounting information is used to resolve the uncertainty surrounding a decision situation thereby improving the judgment regarding the decision (Sprinkle 2003).

Furthermore, Wouters & Verdaasdonk (2002) highlight that accounting information is especially useful in decision-making situations where the uncertainty over a decision is caused by the lack of knowledge regarding the relative weights of the various consequences resulting from the decision. In these situations, the decision-maker is not able to see a complete picture of the decision situation and is unable to determine the overall best

decision to make solely based on intuition. (Wouters & Verdaasdonk 2002) Accounting information can then provide the means for evaluating how to achieve certain objectives by quantifying the financial impacts of the decision alternatives that are available in the decision-making situation (Gerdin et al. 2014; Wouters & Verdaasdonk 2002). Because accounting information uses a single unit of measure, it enables the decision-maker to easily compare the areas that the decision has an impact on (Wouters & Verdaasdonk 2002).

However, Wouters & Verdaasdonk (2002) argue that it is unlikely that accounting information is suitable for every decision problem as it also has specific disadvantages. The weakness of accounting information comes from the fact that it is an abstract and imperfect representation of the underlying decision problem (Chapman 1997; Wouters & Verdaasdonk 2002). This is because it is not possible to quantify perfectly all the aspects involved in decision-making in financial numbers (Galbraith 1973, cited in Wouters & Verdaasdonk 2002). Therefore, accounting information often gives only a limited understanding of the complexity of organisational life (Jordan & Messner 2012). Nevertheless, despite these shortcomings management accounting has a prominent role in supporting decision-making and it has the capability to enable managers to make better decisions.

2.2.2 Utilising management accounting in decision-making

The usefulness of management accounting in supporting decision-making is largely determined by how it is utilised in the actual decision-making processes. Managers often find the support from MA information to be insufficient in decision-making due to it being irrelevant or useless, or because the application of the MA information is hindered by its presentation (Hall 2010; Saukkonen et al. 2018; Wouters & Verdaasdonk 2002). Therefore, Saukkonen et al. (2018) argue that in order to be effectively utilised in decision-making, MA information should fit the business context of the decision situation. Furthermore, it should reflect the values, roles, and responsibilities of the various actors that are participating in the decision-making. (Saukkonen et al. 2018)

According to Saukkonen et al. (2018), the literature identifies two approaches for the utilisation of MA information in managerial decision-making (e.g. Nielsen et al. 2015). These are the analytical approach and actor-based approach. Saukkonen et al. (2018) argue that when MA information utilisation is discussed in the context of decision-making, both the analytical features (e.g. decision-making procedures or calculations) as well as the actor-based features (e.g. intentions or other behavioural aspects) should be given attention. According to Nielsen et al. (2015), these two approaches exhibit substantial differences in terms of using management accounting, managing information uncertainty and fostering interaction between different participants in decision-making. However, Saukkonen et al. (2018) highlight that in practice these two approaches may have varying forms and they may even be combined.

The analytical approach is rooted in rational and calculative decision-making, and it is assumed that relevant and comprehensive management accounting information is available for decision-making (Nielsen et al. 2015; Saukkonen et al. 2018). This approach is characterised by an analytical decision-making process which involves stages from initial problem definition to the analysis (Saukkonen et al. 2018). Saukkonen et al. (2018) highlight that in this approach the aim is that MA information is objectively utilised by decision-makers in observing and describing the decision-making situation and in analysing the possible alternatives for the decision. Therefore, Nielsen et al. (2015) state that at the core of the analytical approach is a fundamental belief that subjective experiences and engagement of individuals needs to be detached from decision-making to produce the best decision information.

In the actor-based approach, in turn, the emphasis is on interactions among different participants and through this interaction on covering the different managerial viewpoints in the organisation (Saukkonen et al. 2018). This approach emphasises the fact that there are typically several managers involved in the majority of decision-making processes in organisations with each of them having different intentions and ways of reasoning. The interactive decision process emphasised in the actor-based approach serves as a forum for the various actors to express decision-related interests. (Saukkonen et al. 2018) Therefore, the decision participants are engaged to actively develop decision alternatives (Saukkonen et al. 2018) and to produce information for decision-making that allows the critical evaluation of these alternatives (Nielsen et al. 2015; Saukkonen et al. 2018). This information then helps in managing uncertainty at various stages of decision-processes. What follows is that in actor-based approach the different actors are able to develop increasingly higher certainty and insight of the decision's financial implications. (Nielsen et al. 2015) Saukkonen et al. (2018) highlight that this approach often involves systematic steps similar to the analytical approach, but here the emphasis of these steps is on techniques that are interactive and reflective to utilise MA information for decision-making purposes.

In their study, Saukkonen et al. (2018) found several limitations to the effective utilisation of MA information in decision-making with majority of them stemming from insufficient actor-based orientation. First, managers may lack expertise in using MA tools which hinders their ability to include their viewpoints to decision-making due to the inability to convert them into financial terms. This may result in important factors becoming excluded from the decision-making. Second, reflection on taken-for-granted assumptions may be lacking in managerial interaction. Thus, unconventional perspectives are not explored which results in MA information being unable to introduce alternative solutions into the decision-making. Third, the scope, content and timing of the required MA information concerning the decision varies between different managers. This is because the needs for MA information and analyses are influenced by the managers' organisational roles and personal preferences. Fourth, managerial viewpoints may be ignored by the

structure of the decision-making process itself. Thus, although analytical decision-making procedures provide structure to complex decisions, it may cause the viewpoints of certain actors to be excluded. (Saukkonen et al. 2018)

What these findings suggest is that there is need for actors from business controlling to participate actively in decision-making instead of only providing information as an input to decision-making processes. This notion is supported by Sathe (1983) who argues that the provision of quality information and analysis does not guarantee that the information will be utilised to its full effect in managerial activities and decision-making. Therefore, it is required that business controlling becomes actively involved in decision-making by challenging the plans and actions of managers and by recommending courses of action. This ensures that the specialist expertise and knowledge possessed by business controlling gets proper consideration when business decisions are made and actions taken in organisations. (Sathe 1983) In conclusion, it would seem that the increased actor-based orientation in decision-making is highly required and important in shifting business controlling to a more active role in decision-making.

2.2.3 Management accounting supporting managerial work

This far management accounting in managerial work has been discussed primarily in the context of decision-making. It is clear that managerial work involves making decisions, of which many are important, and much of the literature concerning accounting information is focused on researching how it is used in managerial decision-making in well-defined scenarios (Hall 2010). However, Hall (2010) found that decision-making is often only a relatively small aspect of managerial work and, in fact, not always that critical. Similarly, based on empirical studies on managerial work, Jönsson (1998) found that decisions may in fact be rare events for managers, and instead their activities most frequently include asking questions and acquiring information. Furthermore, Burchell et al. (1980, cited in Ahrens & Chapman 2007) state that accounting information is implicated in such processes as organisational rationalisation, learning and bargaining as much as it is in decision-making.

These notions imply that broader perspectives should be given attention regarding management accounting and managerial work. They also highlight the breadth of the various aspects that may need considering when improving management accounting in supporting management. According to Hall (2010), managers are often faced in their work with problems involving significant uncertainty, doubt and potential for significant errors. Moreover, managerial work largely consists of responding to unusual and unplanned problem situations that have unclear and unstable boundaries. Therefore, he argues that studying the use of accounting information in managerial work should not be restricted to specific decisions in well-defined contexts as this can limit the consideration of other important ways that accounting information is used by managers. (Hall 2010) Based on

prior research, Hall (2010) presents in addition to decision-making three roles for accounting information in facilitating managerial work. These roles are illustrated in Figure 2.

Knowledge development	Part of a wider set of information	Implicated through verbal communication
<ul style="list-style-type: none"> • Emphasis on simplicity of MA information • MA information provides quantitative perspective and visibility to organisational activities 	<ul style="list-style-type: none"> • MA information complemented and contextualised by other information • MA information can be evaluated relative to other information 	<ul style="list-style-type: none"> • MA information can be tailored to specific concerns • MA information prompts discussion by signalling need for further investigation

Figure 2. *Management accounting information facilitating managerial work (Hall 2010)*

Rather than being used as an input into specific decision-making situations, accounting information is primarily used by managers to develop knowledge of their work environment (Hall 2010) and to inform themselves on what is going on in the organisation (Gerdin et al. 2014). Instead of being faced with one problem at a time, managers are dealing with portfolios of problems. These problems are related in ways that are unclear and may even indicate something more serious. As a result, managers use information to develop a more general context of knowledge of their work environment to prepare for future activities and decisions. In this context, accounting information can help managers by making visible the various activities that are not visible in managers' daily work and by providing a quantitative perspective to their work. (Hall 2010)

In this role of knowledge development, Hall (2010) argues that instead of complex analyses and reports managers require accounting information that they can easily understand. Research shows that the elegance, completeness or accuracy of accounting is secondary in importance when the purpose is to develop general knowledge of the environment. The complexity of accounting information may in fact be detrimental to managers as it can mask the uncertainties that they need to be aware of. Therefore, accounting information should instead provide them with a common-sense story of organisational performance. (Hall 2010) In this vein, Osborn (1998) found that when simplified accounting information structured around key issues was used by managers it prompted productive discussion among them (Hall 2010). This in turn resulted in managers devoting more time to build shared interpretations of results (Hall 2010) and thus develop their knowledge of the working environment.

It is important to note that accounting information is not the only source of information available to managers. According to Hall (2010), in much of management accounting research there is a tendency to focus on the usage of only accounting information in managerial work. However, because of its limitations in providing thorough understanding of complex organisational processes (Chapman 1997) it stands to reason that managers do not blindly rely solely on accounting information (Jordan & Messner 2012). In this vein, Bruns & McKinnon (1993) found that managers seek to obtain information from every source that is available to them. In fact, the information managers use in performing their jobs ranges all the way from facts and forecasts to intuition, gut feel and even gossip (Bruns & McKinnon 1992, cited in Hall 2010). Moreover, managers draw upon other forms of knowledge from different sources of information to complement accounting information and contextualise it (Jordan & Messner 2012). Furthermore, Hall (2010) argues that the strengths and weaknesses of accounting information in managerial work should not be considered in isolation, but instead in relation to other sources of information that managers have at their disposal to perform their work. When positioning accounting information in a wider set of information its relative strengths can be evaluated more critically and understood better (Hall 2010).

Accounting information is an important part of managerial work in the form of “accounting talk” that managers engage in when describing problems and discussing potential solutions (Gerdin et al. 2014). Hall (2010) argues that managers use mainly verbal communication when interacting with information and other managers. This is in line with the findings of Bruns & McKinnon (1993) on verbal communication being the primary means of disseminating information among managers. What follows is that accounting information becomes implicated in managerial work through discussions rather than written reports (Hall 2010). Verbal communication enables collaboration between managers that have varying preferences, limited information provision capabilities and possible conflicting values (Saukkonen et al. 2018). Furthermore, Hall (2010) states that verbal communication gives managers the possibility to tailor accounting information to specific concerns, and also provides them with a context for discussing and debating the implications and meanings of accounting data. Therefore, rather than accounting information’s relevance being determined only by its content, it is actually made relevant through the managerial work performed on it. Moreover, in addition to being verbally exchanged, accounting information can generate discussion among managers by signalling a requirement to investigate something in more detail. (Hall 2010)

The roles of accounting information in facilitating managerial work discussed here support Jönsson’s (1998) statement that accounting information’s relevance is dependent on its capability to relate to managerial work. As can be concluded from the discussion above, Hall (2010) subscribes to this notion and further argues that the relevance of accounting information is primarily determined by how managers actually use and interpret the information rather than by how it is designed. Therefore, Hall (2010) emphasises that

a sole focus on areas such as the design of accounting information or on the development of accounting information to more comprehensively describe organisational activities may actually restrict the consideration of the more important aspects of how accounting information is actually used in managerial work. It is therefore important to note that although technical improvements regarding accounting information and its design are important, the quality and relevance of accounting information should primarily be judged by how well it enables managers to do their work. (Hall 2010)

2.3 Strategic orientation of management accounting

This chapter discusses the strategic orientation of management accounting. First, strategic management accounting (SMA) is discussed as a term and its definitions are examined to establish an understanding of its rationale in organisations. Secondly, the different perspectives on what strategic management accounting encompasses according to the literature are discussed to provide an understanding on what SMA means in practice. The first perspective suggests that SMA constitutes of a variety of management accounting techniques with a strategic orientation. The second perspective in turn establishes SMA as the participation of management accountants in strategic processes and strategic decision-making situations in organisations.

2.3.1 Strategic management accounting

According to Nielsen et al. (2015), management accounting plays an important role in organisationally complex decision-making situations that are strategic in nature. However, many researchers have argued that conventional management accounting information does not sufficiently support strategic decisions (Lord 2007, cited in Cescon et al. 2018). In the literature concerning management accounting's interface with strategy, strategically oriented management accounting has been labelled as strategic management accounting (Cuganesan et al. 2012). In accordance with much of the literature (e.g. Cadez & Guilding 2008; Ma & Tayles 2009), in this thesis the concepts of strategic management accounting are viewed as an integral part in the business controlling function's shift towards an increased business orientation.

In the literature there is no agreed consensus on the definition of SMA (Cadez & Guilding 2008; Cuganesan et al. 2012; Langfield-Smith 2008). On a broad level Tillmann & Goddard (2008) define SMA as the supporting of strategic decision-making using management accounting systems. Similarly, Ma & Tayles (2009) define SMA as the area of management accounting concerning strategically oriented information for decision-making and control purposes. The original definition of the term SMA was given by Simmonds (1981, cited in Langfield-Smith 2008) who established it as the provision and analysis of MA information for the business as well as its competition with the purpose of using it in forming and monitoring business strategy. Later, Bromwich (1990, cited in Bhimani &

Langfield-Smith 2007) defined SMA as providing and analysing financial information on the product markets of the company and costs and cost structures of its competitors, and monitoring the strategies of both the company and its competitors in these markets over time. In an article reviewing strategic management accounting research over 25 years, Langfield-Smith (2008) summarises SMA as adopting a strategic orientation to management accounting information generation, interpretation and analysis, and competitors' activities.

Despite the varying definitions, it is widely accepted that strategic management accounting represents a major departure from the conventional internal focus of management accounting (Cadez & Guilding 2008) with its contrasting emphasis on an outward-looking orientation (Cescon et al. 2018). Furthermore, it aims to adopt a broader emphasis than is characteristic of conventional management accounting and it incorporates a longer-term outlook (Ma & Tayles 2009; Roslender & Hart 2003). These characteristics are implied in its very name as according to Cadez & Guilding (2008) there is a broad consensus that organisational strategy is externally focused, long-term and forward looking. Moreover, in contrast to conventional management accounting's focus being mainly on financial information (Ma & Tayles 2009), SMA places greater emphasis also on the usage of non-financial information (Bhimani & Langfield-Smith 2007).

Ma & Tayles (2009) argue that the external environment of an organisation has an influence on the adoption of new management accounting practices. Competitive pressure may impose strong requirements concerning the efficient conduct of an organisation's commercial activities and SMA has the potential to offer promising solutions. (Ma & Tayles 2009) In fact, Cadez & Guilding (2008) found that the usage of strategic management accounting has a positive effect on organisational performance. However, in order to pursue the more strategic orientation of management accounting, it is important that it is understood in organisations what actually constitutes SMA. This will be discussed in the next chapter.

2.3.2 Perspectives on strategic management accounting

In the literature concerning strategic management accounting there is discussion on different perspectives on SMA and what it encompasses. Based on their review of SMA literature, Cadez & Guilding (2008) suggest that SMA can be viewed from two perspectives, either as comprising of accounting techniques that are strategically oriented, or as concerning the management accountants' involvement in corporate strategic decision-making processes.

In the first perspective the SMA techniques are classified by Cadez & Guilding (2008) into five categories which are (1) costing, (2) planning, control and performance measurement, (3) strategic decision-making, (4) competitor accounting, and (5) customer accounting. In determining the categories and techniques they subscribe to Guilding et al.

(2000) who argue that the techniques must exhibit degrees of forward-looking and outward-looking orientation. Cescon et al. (2018) present these same categories in their study on SMA techniques with the exception of customer accounting. The strategic management accounting techniques included in these categories by Cadez & Guilding (2008) are presented in Table 1.

Table 1. *Management accounting techniques that exhibit strategic orientation (adapted from Cadez & Guilding 2008, p. 839)*

SMA technique categories	SMA techniques
Costing	<ol style="list-style-type: none"> 1. Attribute costing 2. Life-cycle costing 3. Quality costing 4. Target costing 5. Value-chain costing
Planning, control and performance measurement	<ol style="list-style-type: none"> 1. Benchmarking 2. Integrated performance measurement
Strategic decision-making	<ol style="list-style-type: none"> 1. Strategic costing (strategic cost management) 2. Strategic pricing 3. Brand valuation
Competitor accounting	<ol style="list-style-type: none"> 1. Competitor cost assessment 2. Competitive position monitoring 3. Competitor performance appraisal
Customer accounting	<ol style="list-style-type: none"> 1. Customer profitability analysis 2. Lifetime customer profitability 3. Valuation of customers as assets

Overview of the different SMA technique categories is given to provide an understanding of their implications. Firstly, regarding costing, according to Cescon et al. (2018), organisations should use different strategic cost analyses in order to integrate costs into their strategies. Here, the requirement of collecting cost data in order to enable comparisons against competitors is emphasised. In turn, planning, control and performance measurement concerns measuring and comparing organisational performance against strategic objectives over time. Moreover, it involves comparing performance against competitors through benchmarking. (Cescon et al. 2018) Strategic decision-making techniques have an important role in supporting an organisation's strategic choices. Therefore, this category has significant consequences to organisational performance over time. (Cescon et al. 2018)

Competitor accounting, in turn, encompasses the recording, analysis and presentation of both financial and non-financial accounting information of competitors, thus providing

information that is primarily outward-looking. This is done with the purpose of facilitating comparisons between the organisation and its competitors. (Cescon et al. 2018) Lastly, according to Guilding & McManus (2002), customer accounting relates to companies' increased focus on achieving competitive advantage through customer-focused strategies. Competitive environments pose requirements for the delivery of insight on how customer value can be created. Furthermore, there is need for information on customer profitability to enable the identifying of the customers that should be targeted. (Guilding & McManus 2002)

According to Ittner & Larcker (1997), there is an increasing need for business controlling to assume an active role in monitoring the implementation and success of strategic plans and supporting strategic decision-making through the provision of relevant information. In this context, Baines & Langfield-Smith (2003) highlight that to enable the development of appropriate management accounting information the organisation's strategy must be articulated clearly to define the objectives that it encompasses in such precision that makes them measurable. Furthermore, they argue that accounting information provided to managers should facilitate informed judgments and decisions that support the organisation's strategy. (Baines & Langfield-Smith 2003) The strategic management accounting techniques discussed above attempt to address this need and provide the means for providing relevant information to support strategically oriented managerial work and decision-making more effectively.

The second perspective provided by Cadez & Guilding (2008) views SMA as concerning the role and involvement of management accountants in strategic decision-making. Langfield-Smith (2008) argues that it is not sufficient to view strategic management accounting simply in terms of its techniques as it is clear that SMA encompasses broader strategic notions. Moreover, in the literature there is widespread acceptance for the need of higher involvement from business controlling in strategic processes (Ferreira & Moulang 2009). In this context, management accountants are seen as active participants in the strategic management process and as integral influencers in strategic decision-making rather than just acting as information providers (Cadez & Guilding 2008).

Subscribing to this second perspective, Tillmann & Goddard (2008) view management accounting as closely tied to the organisational setting. They argue that while understanding the specific SMA techniques that are used is important, it is at least of equal importance to understand how management accounting is used by the participants or actors in organisations in making sense of complex strategic decisions. This phenomenon of sense-making is described as the basic social process where organisational actors attempt to understand past, present and potential future situations. Depending on the decision context a very diverse set of accounting information is often used when attempting to achieve sense-making. Therefore, they claim that when it comes to assisting strategic decision-making, it is important to provide as broad range of accounting information as

possible instead of focusing on one or two specific accounting techniques in order to ensure that relevant information is available. (Tillmann & Goddard 2008)

Additionally, strategic management accounting has also been closely associated with the interface between management accounting and marketing management. In their study, Roslender & Hart (2003) identify SMA as a generic approach to accounting for strategic positioning instead of simply the development intended to making management accounting more strategic. In their view SMA is defined as the integration of insights from both management accounting and marketing management and doing so within a strategic management framework. They argue that increased cooperation and synergy with marketing management is beneficial as it enables a more external focus on both customers and competitors as well as products and their attributes. (Roslender & Hart 2003)

The discussion above highlights that there exists several techniques to pursuing a more strategic orientation for management accounting in organisations. These serve as a way to incorporate a more external focus and longer-term outlook to management accounting. Furthermore, the importance of business controlling being actively involved in strategic decision-making is emphasised in the literature. Based on this discussion it can be argued that business controlling should have an active role in matters related to strategy if SMA is to be comprehensively pursued in organisations. Furthermore, SMA emphasises the interaction between business controlling and business management in strategic decision-making and strategy processes.

2.4 Developing the business orientation of business controlling

This far different aspects of management accounting in organisations and its role in business controlling have been comprehensively discussed. In this discussion surrounding management accounting in organisations there have repeatedly emerged notions regarding the need for more active participation and involvement of business controlling in business management. This chapter focuses on discussing the development of this increased involvement and business orientation of BC where the purpose is to support the business more comprehensively. First, the role shift of BC towards an active business partner is discussed based on the literature surrounding it in order to establish an understanding of what the role of a business partner entails. Second, the various aspects that the literature suggests as influencing and facilitating the shift towards business orientation are discussed. Lastly, the empirical research on the consequences and benefits to organisations from BC becoming more actively involved in the management of the business is discussed to establish the organisational motivations to pursue this role change.

2.4.1 Towards an active business partner

Today, business controlling (BC) has moved towards a more business-oriented role where it acts as a proactive internal advisor to the management, and it is thus becoming a so-called business partner (Davis & McLaughlin 2009; Granlund & Lukka 1998; Wolf et al. 2015). This business orientation of management accounting (or business controlling) is defined by Järvenpää (2007) as the ability and willingness of management accounting to provide the company's management more added value in decision-making and control.

The role of a business partner entails an increased emphasis on a more collaborative, strategic and forward-looking orientation for the business controlling function. Therefore, it is greatly distinguished from the traditional view of business controlling acting as a "bean counter" or "number cruncher". (Byrne & Pierce 2007) By becoming a business partner, business controlling should be able to provide managers with better services and have increased contribution to achieving organisational goals (Burns & Baldvinsdottir 2005; Wolf et al. 2015). According to Quinn (2014), business partner controller has an embedded supporting relationship with business management and provides them with insight on various business challenges. Furthermore, the shift from acting as a provider of mainly financial information towards a role with increasing managerial and strategic engagement enables business controlling to align its activities to the changing business and organisational environment (Bhimani et al. 2015, p. 6).

The business orientation of controllers and their changing role to business partners has been studied extensively (Burns & Baldvinsdottir 2005; Wolf et al. 2015). In literature there has long been repeated arguments for the need of business controlling to move towards increased business orientation (Granlund & Lukka 1998), and studies have identified that greater involvement of business controlling is generally desired in organisations (e.g. Byrne & Pierce 2007; Pierce & O'Dea 2003). According to Jones & Glover (2018), there is mounting evidence of this shift towards the role of business partner over the years (e.g. De Loo et al. 2011; Goretzki et al. 2013). However, despite this evidence Lambert & Sponem (2012) claim that the business partner role of business controlling is not as common in organisations as is widely believed. The findings of Zoni & Merchant (2007) similarly suggest that the involvement of business controlling in management decision-making varies significantly among organisations.

The adoption of this business partner role referred to in the literature is not straightforward (Byrne & Pierce 2007; Windeck et al. 2015). Davis & McLaughlin (2009) argue that there is a lack of awareness in many organisations about the touch points and potential benefits for business partnering. The role of a business partner may lack common understanding between financial and business management in organisations, and there may exist a number of role ambiguities, contingencies and even conflicts in its adoption (Byrne & Pierce 2007). Furthermore, Burns & Baldvinsdottir (2005) argue that this role change of business controlling is a complex and largely contextual process. Consequently, it seems that in

many organisations business controlling is still unable to achieve the level of business partnering that would be desired (Davis & McLaughlin 2009; Suomala et al. 2011, p. 20).

2.4.2 Factors enabling and influencing business orientation

Several aspects have been identified in literature as potentially facilitating the shift of business controlling towards the role of a business partner and enhancing the business orientation of the function in organisations. As was discussed earlier, Järvenpää (2007) defines the business orientation of business controlling as both the willingness and the ability to provide management with more added value. Following this definition, the business orientation of business controlling is influenced by these two higher level notions. The notion of willingness refers to the organisational and personal desire to accomplish the role change and participate actively in the management of the business (Järvenpää 2007). In turn, the notion of ability refers to more relevant accounting and information systems, business controlling function's overall knowledge and understanding of the business, and personal competences (Järvenpää 2007). In order to establish an understanding of the aspects that have the potential to facilitate and enhance the business orientation of BC, these notions and what the existing research suggests that they encompass are discussed next in more detail.

When it comes to the organisational willingness to pursue the role change of business controlling, Järvenpää (2007) found that the personal role modelling of financial top management significantly affects the accounting culture in organisations. Therefore, the willingness of controllers to pursue the role of a business partner is strongly influenced by the attitudes and behaviour of top management. (Järvenpää 2007) Closely related to this, Lawson (2016) highlights the importance of changing the mind-set in finance teams from solely financial focus to broader view of the business. In order to become more business-oriented controllers need to exhibit the desire to have an impact on organisational performance and to establish strong collaborative relationships with the business. (Lawson 2016)

Jones & Glover (2018) argue that today business controlling is being called upon more than ever to deliver more value to organisations. This implies that in these organisations it is expected that value can be gained from greater involvement and business orientation of business controlling. The importance of management's expectations and willingness is emphasised in the literature concerning the shift towards a business partner (Byrne & Pierce 2007; Wolf et al. 2015). Regarding this, Wolf et al. (2015) found that managerial expectations are a necessary requirement for business controlling to act as a business partner and participate more actively in decision-making. Therefore, without the support from business management the role shift is unlikely to happen (Windeck et al. 2015).

In this vein, Byrne & Pierce (2007) argue that while business controlling may desire for more active involvement in managing the business, managers may show scepticism towards this involvement. Therefore, based on their findings Byrne & Pierce (2007) argue that the role-selling capacity of business controlling influences its ability to become more involved in the business. What this means is that business controlling may be required to convince business managers that the increased participation of BC may actually enable them to achieve better results. (Byrne & Pierce 2007) Likewise, Lawson (2016) emphasises that business controlling must gain buy-in from the business management in the organisation in order to realise the increasingly business-oriented role. This entails communicating the potential added value from becoming more involved in the business to improve the organisational understanding of BC's contributions. Furthermore, in order to be able to do this, business controlling must identify the activities where it can have the greatest impact on organisational value. (Lawson 2016) What should also be noted is that the expectations regarding the involvement of BC may significantly vary among managers due to different management approaches. Therefore, business controlling is likely required to adapt to different managerial styles when pursuing business partnering. (Byrne & Pierce 2007)

Several aspects that fit directly under the notion of ability or are closely related to it have been identified in literature as potentially influencing and enhancing the business-oriented role of business controlling. According to Lawson (2016), controllers must be able to deliver insight into the business. In this regard, Järvenpää (2007) highlights that personal attention must be directed towards new kinds of behaviour that enables the business orientation of business controlling. According to Järvenpää (2007), an aspect that has a significant role in facilitating business orientation is decentralisation of the business controlling function. This may involve decentralisation into business units, different cross-functional teams or even to specific projects. In his empirical study, Järvenpää (2007) found structural interventions in the form of decentralisation to be effective in changing the values and actions of controllers. Decentralisation brings controllers close to the management and from the resulting cross-functional interaction the expectations of management become more influential. At the same time, it provides controllers better opportunities to support the management. (Järvenpää 2007)

Another aspect potentially influencing the business orientation is the implementation of new and more sophisticated management accounting techniques aimed to more comprehensively support business decisions and organisational control (Järvenpää 2007). Many of these new techniques fall under the notion of strategic management accounting (Järvenpää 2007) which was comprehensively discussed earlier in chapter 2.3. Therefore, by implementing these new and potentially more relevant MA techniques business controlling could enhance its business orientation and better support the business (Järvenpää 2007). In fact, Järvenpää (2007) found in his study that accounting innovations aimed to

better support the business strengthened the management accountants' role in business management.

De Waal et al. (2019) emphasise that the focus of business controlling must shift from routine transactions to executing more value-adding activities. According to Järvenpää (2007), management accountants' most common and often most overwhelming activities involve issues related to basic accounting like budgeting and financial reporting. Therefore, he emphasises the importance of developing the accounting and information systems in organisations. In his empirical study, Järvenpää (2007) found that the development of basic reporting systems has a highly prominent role in enabling business controlling to support the business. Therefore, he argues that well-running basic accounting systems are a necessary requirement to provide sufficient conditions for real business partnering to happen in organisations. More specifically, fast and well-suited basic accounting and information systems reduce routine work and make information dissemination faster thus reserving more time for business controlling to perform analyses and carry out various business partnering activities. (Järvenpää 2007) Therefore, the implementation of software packages such as more sophisticated Enterprise Resource Planning (ERP) systems may affect the role of the business controlling function by enabling more effective performing of routine activities as well as faster and more flexible reporting (Järvenpää 2007). What is more, De Waal et al. (2019) suggest that in order to increase the cooperation with business, the number of fixed reports provided by business controlling must be reduced and different support tools need to be introduced and improved. This enables business management to be more self-reliant when it comes to financial reporting and processes, and thus reserves more time for business controlling to interact and conduct meaningful dialogue with them. (De Waal et al. 2019)

Finance functions will be increasingly impacted by advancing automation in the near future (De Waal et al. 2019). Although financial activities have been greatly automated in recent years, legacy systems still cause problems in many organisations (De Waal et al. 2019). According to Lawson (2016), having multiple ERP-systems creates challenges in many organisations. He describes this as "ERP fatigue" and argues that it results in manual workarounds causing additional non-value-adding work while also destroying insight opportunities. Therefore, business controlling must push for system simplification in organisations to free up time for business partnering activities. (Lawson 2016) In order to eliminate these problems, organisations need to implement integrated information systems that enable seamless integration of financial processes across functions and the organisation as a whole (De Waal et al. 2019). Furthermore, De Waal et al. (2019) highlight the importance of increasingly outsourcing routine activities or delivering them through shared services. By doing this, time would be freed for business controlling to focus more on executing activities that add value to the business. (De Waal et al. 2019)

Another aspect highlighted in the literature regarding business controlling's ability to become more business-oriented concerns personal competences. Järvenpää (2007) argues

that human resource management influences the management accounting culture shift towards business orientation. More specifically, he found recruitment, career planning and training to be of high importance in this regard. When it comes to organisational change situations existing literature acknowledges the importance of training. (Järvenpää 2007) Therefore, Järvenpää (2007) emphasises the importance of providing business training for accounting personnel. Furthermore, De Waal et al. (2019) highlight that continuous attention needs to be directed to the development of financial professionals in organisations.

As can be concluded from the discussion above, existing research identifies and suggests numerous aspects that may facilitate and have an influence on the level of the BC's business orientation and on its successful role shift. What should be noted is that because there is potentially a significant number of different factors influencing the business orientation of BC, it is not possible to cover all of them in this theoretical background. However, the discussion above presents the aspects that have been identified in the literature as the most important facilitators of the role change and should thus receive primary attention in organisations. As Järvenpää (2007) highlights, the role change is a multidimensional issue affected by various aspects that require attention and managing. The significance and implications of these aspects may vary among different organisations (De Waal et al. 2019; Järvenpää 2007) and because of this there does not seem to exist a clear formula on how organisations should be able to achieve optimal business partnering. Therefore, it seems that the business orientation of business controlling and its role shift towards a business partner is indeed a highly complex and contextual process (Burns & Baldvinsdottir 2005) and also strongly related to organisational culture (Järvenpää 2007). Nevertheless, the evidence found in the literature regarding the various aspects that influence and facilitate the role shift of business controlling provides a relatively clear and comprehensive direction for organisations that are seeking to develop the role of business controlling.

2.4.3 Consequences and benefits

It is important to understand the organisational motivations for business controlling to become an increasingly business-oriented business partner to the management. This far the purpose and expected consequences from adopting the role of a business partner have been discussed only on a more general level. As stated earlier, the underlying reasoning for business controlling to become a business partner suggests that by doing so business controlling is able to provide management with enhanced services and have a greater contribution to achieving organisational goals (Wolf et al. 2015). Furthermore, Wolf et al. (2015) suggest that the increased involvement of business controlling should have a positive influence on an organisation's competitiveness as management will receive more relevant and timely information, which then improves managerial decision-making and strategic effectiveness of the organisation. However, Järvenpää (2007) highlights that the

empirical evidence in this area is still underdeveloped, fragmented and anecdotal. The empirical research on the consequences of the business partner role of business controlling is scarce (Byrne & Pierce 2007) and there exists no clear picture of business partnering behaviour's effectiveness on organisational performance (Wolf et al. 2015).

Nevertheless, some empirical studies exist where the consequences and impacts resulting from greater involvement of the business controlling function have been researched and identified. These studies are presented in Table 2. The studies and their findings are divided into three areas following the classification given by Byrne & Pierce (2007) in their study. These three areas concern the influence on performance, information impact, and role interface.

Table 2. *Empirical research on the consequences from greater business orientation and business partner role of business controlling*

Area	Research	Methods / subjects	Key findings
Influencing performance	Byrne & Pierce (2007)	<ul style="list-style-type: none"> • In-depth interviews • Financial & General managers 	<ul style="list-style-type: none"> • Enhanced decision-making • Improved planning and control • Earlier detection of problems • Controllers more informed
	Zoni & Merchant (2007)	<ul style="list-style-type: none"> • Survey • Controllers 	<ul style="list-style-type: none"> • BC involvement positively associated with performance
	Ferreira & Moulang (2009)	<ul style="list-style-type: none"> • Survey • CPA members 	<ul style="list-style-type: none"> • Enhanced strategic effectiveness
	Wolf et al. (2015)	<ul style="list-style-type: none"> • Survey • Controllers & General managers 	<ul style="list-style-type: none"> • Improved cost awareness and resource allocation • Improved internal processes and decisions
Information impact	Byrne & Pierce (2007)	*See above	<ul style="list-style-type: none"> • Enhanced quality, use and value of accounting information • Controllers appreciate non-financial criteria • Controllers can assess quality of incoming information
	Wolf et al. (2015)	*See above	<ul style="list-style-type: none"> • Enhanced quality and relevance of provided financial information
Role interface	Byrne & Pierce (2007)	*See above	<ul style="list-style-type: none"> • Enhanced relationships • Role conflicts • Managers more likely to present issues

Research on the business partner role of business controlling has concerned the influence of increased business orientation on organisational performance. On a more general level, Zoni & Merchant (2007) found in their survey study significant association between controller involvement in business management and firm performance. Byrne & Pierce (2007) conducted a more in-depth study based on interviews on both financial and general managers where they found business partnering to affect several aspects on organisational performance including better business decisions, better planning and control, and problems being detected earlier (Byrne & Pierce 2007). Wolf et al. (2015) conducted a survey where they identified significant associations to organisational performance from business partnering. They found it to improve and add value to organisation's processes and internal efficiency as well as improve cost awareness and the efficiency of resource allocation. (Wolf et al. 2015) In turn, Ferreira & Moulang (2009) focused in their survey research on the strategic perspective of business orientation's influence on performance and found that business controlling's active involvement in strategic processes and implementation of strategy contributes to organisation's strategic effectiveness.

Byrne & Pierce (2007) also studied the information impact of business partnering behaviour and found it to increase the quality and usage of accounting information while also increasing its perceived value among managers. Similarly, Wolf et al. (2015) found it to enhance the relevance and quality of provided financial information. Furthermore, Byrne & Pierce (2007) found that increased interaction with managers enables controllers to better evaluate the received management information and to appreciate more broad usage of accounting information, specifically in terms of non-financial information. This aspect also relates to the earlier discussed influence on performance, as Baines & Langfield-Smith (2003) found a connection between increased reliance on non-financial accounting information and enhanced organisational performance.

The last area concerns the consequences to the role interface in organisations. The findings of Byrne & Pierce (2007) suggest that business partnering enhances the relationships between business controlling and management. It provides controllers the opportunity to better explain MA information and its business consequences to managers. Furthermore, better relationships were found to result in issues being brought up by managers more often. (Byrne & Pierce 2007) In contrast to the positive consequences discussed this far, what Byrne & Pierce (2007) also found was that potential role conflicts may emerge from greater involvement of business controlling. More specifically, managers may show reluctance towards interaction where the purpose is to monitor, gather information or interfere in the business. (Byrne & Pierce 2007)

Based on the discussion above it can be concluded that the empirical research on the effects and consequences of business controlling shifting towards increased business orientation supports the expected consequences and benefits suggested in the literature. Important benefits have been identified to result from the increased business orientation of the business controlling function. Therefore, there is clear motivation for organisations to

pursue the business partnering role of business controlling as they can expect significant benefits to be gained from it.

2.5 Synthesis

There is much research on the information provision role of management accountants. Regarding this role, the literature emphasises the importance of useful and relevant management accounting information in supporting managers in their decision-making and daily work. Existing research stresses the need for aligning the perceptions of the information users and providers on what constitutes such information in order to provide it. Furthermore, the literature emphasises that to comprehensively support managers with management accounting information there is a need to understand the broader context of how managers actually leverage this information not just in decision-making but in their work overall. However, it can be stated that information provision by itself is not sufficient to comprehensively support managers in making right decisions and on achieving organisational objectives. Instead, in order to enable management accounting information to be utilised to its full potential there is need for more involvement from management accountants in the actual activities where the information is utilised such as decision-making processes and strategic management.

Based on the literature it seems that the discussion regarding management accounting in decision-making and managerial work and business controlling's role in supporting management often culminates to the requirement to involve business controlling more closely in management and on the interaction between finance and business management. Furthermore, various challenges identified in organisations whether they are related to the perceived usefulness and organisational validity of MA information (Bruns & McKinnon 1993; Pierce & O'Dea 2003; Weißenberger et al. 2012), utilisation of management accounting in decision-making (Nielsen et al. 2015; Saukkonen et al. 2018) or incorporating a more strategic orientation to MA (Cadez & Guilding 2008; Tillmann & Goddard 2008) would seem to be resolved through more active interaction and communication between business controlling and managers and through the resulting mutual understanding of what constitutes relevant information and what are perceived as value-adding activities for business controlling. Therefore, the increasing desire in organisations for business controlling to become more involved in decision-making and management of the business overall is not surprising.

The theoretical concepts discussed in this theoretical background are illustrated in a framework in Figure 3. What should be noted is that it does not represent an all-encompassing or proven framework regarding the role of business controlling in organisations and its shift to increased business orientation. As can be seen from the discussion in the previous chapter, the role development of business controlling towards a business partner is a broad and complex topic. Therefore, it is not feasible to present every aspect related to it in detail in a single framework. Instead, the purpose of the framework is to summarise

and highlight the key theories identified from the existing literature. This framework will be later used in the discussion chapter of this thesis to reflect the empirical results to the previous research discussed in this theoretical background.



Figure 3. *Synthesis of the theoretical concepts on the role shift of business controlling towards increasing business orientation*

Based on the literature it can be concluded that although the business-oriented role of business controlling is increasingly expected in organisations, pursuing this role shift and achieving optimal business partnering is not simple. The success of this role change depends largely on different cultural, contextual, technological and personal factors. Many of these factors are essential for providing the necessary initial conditions for business controlling to be able to become a real partner to the business, and all of them must be taken into consideration in organisations. The importance of the different factors is likely to vary among organisations depending on, for instance, the attitudes and behaviours of organisational actors, sophistication of accounting and information systems, and business controlling's responsibilities when it comes to reporting and transactional work. Therefore, organisations need to identify the aspects that require the most attention in their specific organisational contexts and focus the improvement efforts accordingly.

In the literature there is much research providing evidence of the business controlling's role shift towards increased business orientation in organisations. However, based on the literature review it seems that the empirical research on the actual consequences and benefits from the business orientation of business controlling is still scarce. Many studies discuss the potential and expected benefits on a more general level but there is little empirical research to back up these notions. Nevertheless, the few empirical studies that do focus on the consequences and benefits provide evidence that the increased business orientation of business controlling influences organisational performance and has a positive impact on information as well as on the role interfaces in organisations.

3. RESEARCH METHODOLOGY AND MATERIALS

This chapter discusses the research methodology of this thesis. First, chapter 3.1 discusses the methodological positioning of this research and justifies the made decisions regarding the research design. Next, chapter 3.2 thoroughly explains the research process of this thesis and discusses the different phases of the process in detail. After that, chapter 3.3 discusses the data that was collected for the empirical part of the research. Lastly, chapter 3.4 discusses how the collected data was prepared for the analysis and how the analysis was conducted.

3.1 Research design and methodological positioning

Saunders et al. (2009, p. 108) have defined different research methodologies typical to business and management research. The methodologies are visualised in a framework called the research onion which consists of different layers. On each layer a decision needs to be made on the research methodology. Saunders et al. (2009) argue that before diving into decisions concerning the data collection and data analysis for the research, attention must be given to understanding and adopting the research philosophy and approach applicable for the research in question. The research philosophy, which is represented by the outer-most layer of the research onion, contains important assumptions on how the researcher views the world. These assumptions in turn will underpin the decision on the research strategy and the subsequent methodological choices. (Saunders et al. 2009, p. 106-108)

However, Saunders et al. (2009, p. 109) acknowledge that it is unlikely that a research question unambiguously falls into one specific research philosophy. Thus, they encourage business and management researchers to think about the research philosophy as well as the other methodological decisions in a flexible way. According to Saunders et al. (2009), the adopted research philosophy defines the researcher's way of thinking in terms of ontology, epistemology and axiology. Firstly, ontology is concerned with the researcher's view of the nature of reality, mainly whether it is objective or subjective. Secondly, epistemology concerns what is viewed as acceptable knowledge in a certain field of study. Lastly, axiology is concerned with the role of researcher's values in the research process. These ways of thinking contain important differences between different research philosophies. (Saunders et al. 2009, p. 109-119)

Figure 4 represents the research onion and shows the six methodological themes of the different layers. The research methodology decisions made in this master's thesis are emphasised in bold. These decisions will next be explained and elaborated on in more detail

beginning from the outer layer which concerns the adoption of the research philosophy for the thesis.

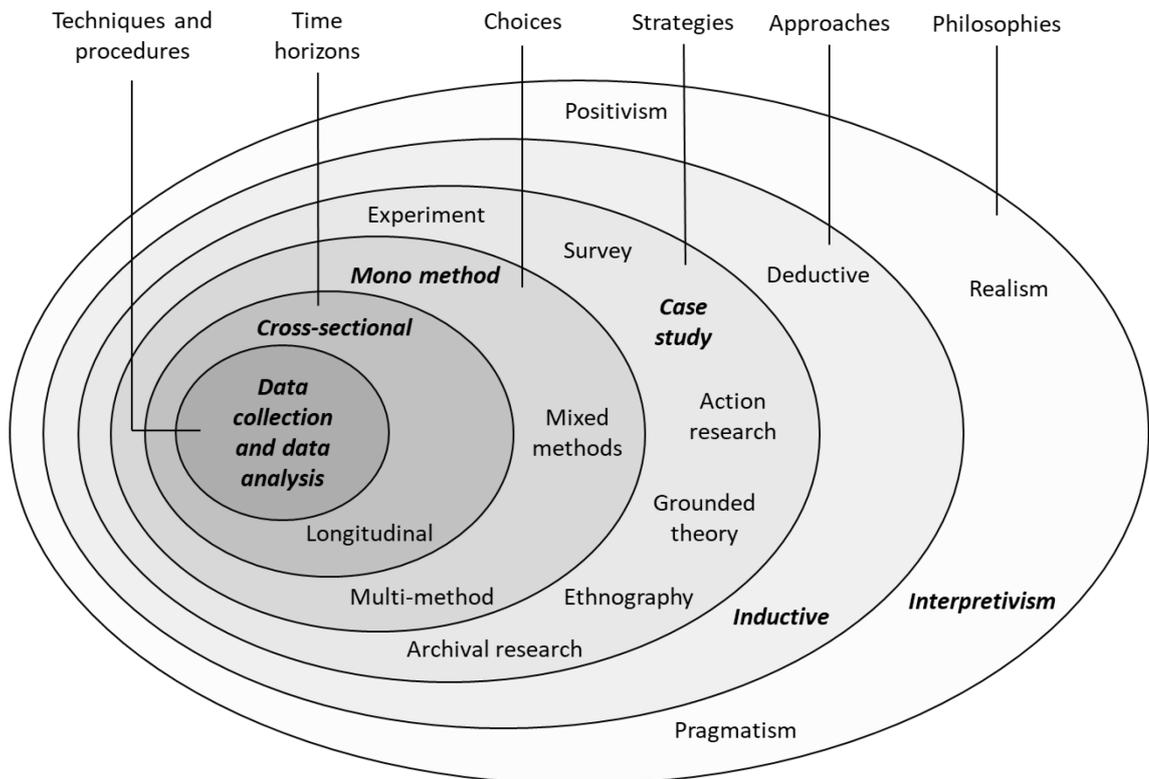


Figure 4. Methodological decisions shown in research onion (adapted from Saunders et al. 2009, p. 108)

First, the research philosophy that was adopted for this thesis follows *interpretivism*. Interpretivism emphasises the understanding of differences between humans as social actors (Saunders et al. 2009, p. 116). Here, it is argued that the world of business and management is too complex to be reduced to law-like generalisations and attempting to do so would prevent the gaining of rich insight. Furthermore, the complexity and uniqueness of business situations result from individuals coming together at a certain time under specific circumstances. (Saunders et al. 2009, p. 116-117) In terms of ontology, interpretivism views the nature of reality as socially constructed and subjective. Epistemologically, subjective meanings and social phenomena constitute the acceptable knowledge in the research. Furthermore, regarding axiology interpretivist research is value bound and will inherently be subjective. (Saunders et al. 2009, p. 119) The topic of this thesis concerns a highly contextual research environment and the results of this research strongly depend on the subjective views of the actors in the organisation. Therefore, interpretivism is well-suited as the research philosophy for this thesis.

Second, the research approach used in this thesis was *inductive*. In inductive research approach the data, which is typically qualitative in nature, is collected and the aim is to

develop theory as a result from the data analysis. Induction places emphasis on developing an understanding on how humans interpret the social world around them and on understanding the context in which the research is conducted. Moreover, inductive approach adopts a flexible research structure where changes to the emphasis of the research are allowed as the research progresses. (Saunders et al. 2009, p. 124-127) Inductive research approach differs in many aspects from its alternative deductive research approach where theory and hypothesis are developed first and research strategy is then designed to test the hypothesis (Saunders et al. 2009, p. 124). In this research the objective is to develop an understanding of the case company's business controlling function's current state and role in supporting the business management based on analysis on the collected data. Furthermore, the research questions of this thesis will be answered based on the views and interpretations of the organisational actors in the case company. As such, it was clear to adopt inductive research approach for this master's thesis.

The research purpose of this thesis is classified as an *exploratory study*. Robson (2002, cited in Saunders et al. 2009, p. 139) argues that exploratory study is a valuable means for studying what is happening and also for seeking new insights. In exploratory study the research focus is often broad at the beginning and as the research proceeds the focus of the research becomes narrower (Saunders et al. 2009, p. 140). Therefore, the purpose of this research is best characterised as exploratory as the researcher aims to answer what the current situation of business controlling is in the case company and to gain insight on the improvement requirements.

Third, in terms of research strategy, the research was conducted as a *case study*. Furthermore, the research strategy represents a single case study. When using a case study strategy, the researcher pursues a rich understanding of the research context as well as the processes that are being enacted (Morris & Wood 1991, cited in Saunders et al. 2009, p. 146). Yin (2003, p. 2) argues that case study strategy allows the researcher to retain the important and meaningful characteristics of real-life events. Case study strategy is typically used in exploratory and explanatory research because it has the capability to answer the questions 'how?', 'why?' and 'what?' (Saunders et al. 2009, p. 146). Furthermore, it has a distinct advantage when such question is being asked about a contemporary set of events which the researcher has no control over and where the boundaries between the phenomenon and the research context are not evident (Yin 2003, p. 9-13). The use of case study strategy is well justified due to this thesis' exploratory purpose and because in order for the researcher to be able to answer the research questions he must gain a deep understanding of the contemporary and contextual setting in the case company.

Fourth, the data for the thesis was collected using *mono method* and consisted of semi-structured interviews with selected people from the case company. Mono method means that the researcher uses a single data collection technique, either qualitative or quantitative, and combines it with a corresponding data analysis technique (Saunders et al. 2009, p. 151). Due to the nature of the research topic and objectives of this thesis, the research

is qualitative by its nature. In semi-structured interviews the researcher has a list of themes and questions relating to those themes to be covered during the interview. However, the themes and questions may vary between different interviews. Moreover, the intentional lack of a formal structure in a semi-structured interview allows it to proceed according to the flow of the conversation. This may potentially lead the discussion to areas that provide significant understanding of the research problem, but which had not been determined beforehand or initially considered by the researcher. Ideally semi-structured interviews should lead to the collection of a detailed and rich set of data. When using semi-structured interviews, the interviewees are encouraged to explain their initial responses in more detail and build upon them enabling the researcher to probe answers from the participants. This is important in the interpretivist research philosophy, which the thesis follows as stated earlier, where the purpose is to understand the meanings attached to different phenomena by the participants. (Saunders et al. 2009, p. 320-324)

What is more, Saunders et al. (2009) have found that managers typically agree to participating in an interview rather than answering a questionnaire. This holds true especially when the topic of the interview is interesting and relevant to their daily work. During interviews managers have an opportunity to verbally reflect on topics and events without the need to spend time writing down explanatory answers. (Saunders et al. 2009, p. 324) In this thesis, all of the interviewees were high-level managers and thus were more likely to find the time to participate in an interview. Furthermore, the use of semi-structured interviews for the data collection was expected to produce the most useful and relevant data and guarantee that the researcher is able to probe in-depth answers from the participants. Therefore, semi-structured interviews were assumed to most likely produce data that serves to comprehensively answer the research questions of this thesis. All in all, the discussion above justifies the use of mono-method and semi-structured interviews in this research.

Fifth, concerning the time horizon, the research was conducted as a *cross-sectional study*. Cross-sectional study focuses on a particular phenomenon at a particular time and is therefore essentially a snapshot of a certain situation (Saunders et al. 2009, p. 155), which in the case of this master's thesis was the current state of the business controlling function. Therefore, the nature of the research objectives of this thesis support the selection of a cross-sectional time horizon. An alternative to cross-sectional research is longitudinal research, where typically change or development is studied over a certain long period of time (Saunders et al. 2009, p. 155). Because of the inherent time restriction in a master's thesis research project a longitudinal time horizon was not applicable and therefore a cross-sectional time horizon was selected for this thesis.

Finally, regarding the data collection and data analysis, the data collection comprised of qualitative semi-structured interviews and consequently the data analysis was done using qualitative methods. This is also in accordance with Saunders et al. (2009, p. 119) stating that the data collection techniques used in interpretivist research philosophy are typically

in-depth investigations of qualitative nature with small samples of data. Data collection and analysis is discussed in more detail in chapter 3.3.

3.2 Research process

The research process of this thesis follows a typical industrial engineering and management master's thesis process. The different phases of the research process and their positions in the timeline of the thesis from January to June 2019 are presented in Figure 5.

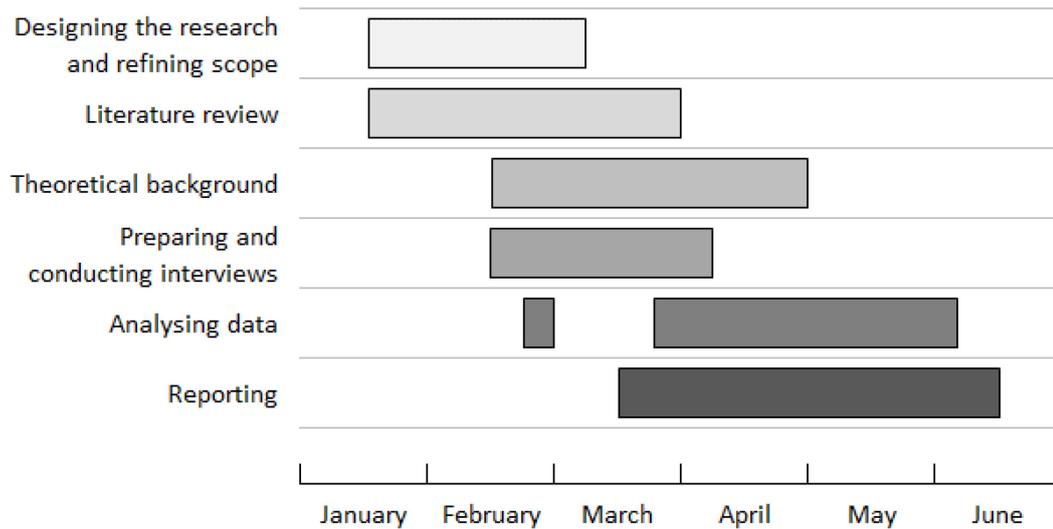


Figure 5. Research process and timeline of the thesis

The research project was started in January 2019. The general topic of the thesis had already been decided before the start of the research project. The research process began with the researcher getting familiar with the research area by reviewing the relevant literature surrounding the topic of the thesis. At the same time the design of the research was formulated, and the scope of the research was refined to fit the requirements as well as the limitations of a typical master's thesis. During the first month several meetings were held between the researcher and the instructor from the company where the research design and the focus of the research were discussed and continuously refined. The researcher also participated in an event with participants from the company's local and global financial management. In this meeting the researcher was able to develop a deeper understanding of the wider organisational context where the research was being conducted. Furthermore, the researcher had the opportunity to meet with the local and global financial management and discuss in advance about the data collection phase where some of them would be interviewed. A kick-off meeting with the instructors from the university, the company instructor and the researcher was held 6th of February. In the meeting the research topic was discussed in detail in order to clearly define the scope and the objectives of the research and thus enable the researcher to fully begin the research project.

After the scope and objectives of the research had been established and the preliminary literature review surrounding the topic was well underway the researcher began a more comprehensive literature review and started writing the theoretical background of the thesis in February. In the preliminary literature review many important key-articles had already been found and these articles helped the researcher to formulate relevant keywords for further literature search. During the keyword search the relevance of the articles was initially evaluated based on their title and by reading the summaries. Furthermore, the relevance as well as the quality of the found articles was evaluated based on the journals they were published in and by how many times the articles had been cited. An important and fruitful approach to finding relevant articles during the literature review was the examination of the references in the articles that the researcher deemed most relevant. This approach also enabled the researcher to further evaluate the quality of the found articles and identify the fundamental articles that subsequent researchers had built upon. During the literature review the researcher was also able to identify the most relevant and acknowledged research journals and further search for relevant articles within these journals. The most prominent journals included *Management Accounting Research* and *Accounting, Organizations and Society* among others. The articles that were found to be the most relevant to the research were read and examined in detail. In turn, the less relevant articles with some important elements were examined more superficially often focusing on the key findings. All together the theoretical background, which was completed at the end of April, covers management accounting and control, management accounting in managerial work and decision-making, strategic orientation of management accounting, and development of the business orientation of business controlling.

The researcher started preparing the interviews alongside with the building of the theoretical background. Purposive sampling was used in selecting the eleven people to be interviewed from both the financial and business management of the case company. Soon after the first versions of the interview templates had been designed by the researcher the first two interviews were conducted. In addition to the data collection purpose, these interviews functioned as practice interviews where the interview structures and the interview questions could be tested and evaluated. After these first interviews were done, they were transcribed and the researcher performed preliminary analysis on the data. The interview templates were re-designed and improved according to the development needs and ideas that emerged in the preliminary interviews and from the analysis. Rest of the interviews were then scheduled and conducted during the latter half of March and beginning of April. The interviews were transcribed soon after conducting each interview and subsequently analysed to further improve the focus of the questions as more interviews were done. By the middle of April all of the eleven interviews had been conducted and transcribed accordingly to come up with the complete data set for the analysis phase of the research. The data collection phase of the research is discussed in more detail in chapter 3.3.

The data analysis phase started in April. The transcribed interview data was rigorously studied and analysed by the researcher in order to thematically organise the data. The themes followed the structure of the final interview templates and interview questions to some extent. However, the researcher identified the need to modify the theme structure in order to present the results in a comprehensive and logical manner. Furthermore, as the interview templates had been largely refined after the first two interviews and also somewhat adjusted after the first five interviews, the researcher had to identify and organise the data from the first half of the interviews to fit the final themes. The data analysis is discussed in more detail in chapter 3.4. The results of the analysis were documented during the latter half of April the beginning of May. The discussion on the results of the thesis and the following conclusions were done in May and June.

3.3 Data collection

Semi-structured interviews were used to collect the qualitative data of this thesis. In the research purposive sampling was used to select the interviewees. According to Saunders et al. (2009), in purposive sampling the aim is to select cases that best enable the researcher to provide answers to the research questions and meet the objectives of the research. Purposive sampling is often used when working with small samples. (Saunders et al. 2009, p. 237) In this thesis the purpose was to select interviewees that represent the top management not only from the business management side but also from the financial management of the case company. Furthermore, as the research objectives concerned the business controlling of the case company both in the centralised function as well as local functions, in addition to selecting interviewees from Finland the aim was to select interviewees that were located and responsible for the financial and business management in different areas globally. Ultimately eleven employees in total were selected to be interviewed with eight of them representing the business management and three of them the financial management. Furthermore, eight of them were located in Finland and three in other areas.

As the selected interviewees included participants from both business management and financial management of the company, two interview templates were constructed with somewhat different questions depending on the management perspective. The interview questions were structured to themes that concerned the current state of the company's business controlling function and its role in supporting managerial work and decision-making, and the desired future state of the business controlling function. The question templates for the interviews were constructed based on the literature review that was started before and was ongoing during the interview phase. Discussions with finance colleagues also played an important role in forming the themes and questions for the interviews.

After the first versions of the interview templates were constructed the researcher held a meeting with the finance team colleagues with the purpose of reviewing the interview

themes and questions. Based on the feedback given by the meeting participants the researcher was able to further refine the interview structures. After this the first two interviews were conducted, one with an interviewee from financial management and one from business management. In addition to the purpose of collecting research data, these interviews functioned as a way for the researcher to test the themes and questions of the interview templates in an actual interview situation. These interviews enabled the researcher to identify the shortcomings in the question templates in terms of unclear questions, overlapping questions, and terms and questions that could have varying interpretations between different interviewees.

After the two preliminary interviews the interview templates were analysed and refined based on the collected interview data and feedback received in meetings with the thesis instructor of the company. After three more interviews were conducted the interview templates were once more refined to ensure that the subsequent interviews would produce data regarding certain areas that had been identified by the researcher as being important based on preliminary analysis on the first five interviews. The final interview template for financial management is presented in Appendix A and the final interview template for business management in Appendix B. As is typical to semi-structured interviews (Saunders et al. 2009, p. 320), the order of the questions varied to some extent between different interviews depending on how the discussion progressed. Additionally, on some occasions questions were omitted when the researcher determined that they had already been covered in the interviewee's previous responses. In turn, in some interviews the researcher asked further questions and clarifications to the answers given by the interviewees. Apart from the occasional adjustments the interviews followed the established themes and questions of the interview templates.

Most of the interviews were conducted in person with both the researcher and the interviewee in the same location. However, three interviews with managers from other countries were done remotely via Skype. In the interviews with Finnish speaking participants the language used was Finnish. This decision was done to ensure that the interview situation was as natural as possible for the participants. It also eliminated the possibility of any limitations posed by foreign language to the answers of the interviewees and to the discussion between the participants. Furthermore, four interviews were done in English because the interviewees were not native Finns. The interviews conducted in the data collection phase of this thesis are illustrated in Table 3.

Table 3. Summary of the interviews conducted in the research

Interview number	Date	Duration (hh:mm:ss)	Role in the company
1	22.2.2019	01:01:55	Finance manager (1)
2	26.2.2019	00:49:26	Business unit manager (1)
3	19.3.2019	01:39:42	Finance manager (2)
4	20.3.2019	01:09:44	Global business manager (1)
5	22.3.2019	00:57:53	Area manager (1)
6	27.3.2019	01:00:16	Area manager (2)
7	29.3.2019	00:48:33	Business unit manager (2)
8	1.4.2019	00:53:10	Finance manager (3)
9	2.4.2019	01:08:52	Global business manager (2)
10	3.4.2019	01:03:51	Business unit manager (3)
11	9.4.2019	01:07:11	Global business manager (3)
	Average time	01:03:41	

The interviews were recorded to guarantee that all of the collected data was accessible for the later data analysis and to make sure that no data was lost during the interviews. In addition, notes were taken by the researcher during the interviews to provide redundancy for the recordings. The interviews lasted on average roughly one hour as planned. All of the interviews were transcribed before the data analysis. Because the interviews represented the only data collection technique in this research the transcribing was done word for word to ensure that the data could be later analysed comprehensively and in detail. The next chapter focuses on discussing the data analysis of the research.

3.4 Data analysis

After the interviews had been conducted and the data had been transcribed, the data analysis was started by categorising the data into higher-level themes. Microsoft Excel was used for analysing and categorising the data. The themes were selected according to the themes in the interviews (see Appendix A and Appendix B). At the same, time these themes enabled the data to be categorised according to the research questions and objectives of the research. Inside these themes the data was coded into more specific categories

by combining the data from different interview questions. The interview templates were planned from the beginning to support the later data analysis phase as well as possible by providing a structure for the categorisation of the data and for presenting the empirical results. Although the structure of the interviews functioned as a good basis for the data categorisation it was necessary to adjust the themes to some extent in order to present the empirical results in a logical and efficient manner.

As was mentioned earlier, the interview structures had been refined and modified between the interviews. Because of this, some interviews required more effort than the others from the researcher as they had to be more comprehensively examined in order to categorise the data according to the themes. Furthermore, due to the nature of semi-structured interviews it was sometimes the case that the answers given by the interviewees did not concern the specific topics that the questions aimed to provide answers to. Likewise, sometimes the interviewees provided answers to topics that had not yet been asked by the researcher as a part of an answer to another question. Moreover, often the interviewees remembered and highlighted important aspects later on in the interviews regarding some theme or question that had been covered already in the earlier part of the interview. Because of the aforementioned aspects the data regarding the different categories was often scattered across various parts of the interviews. Therefore, in order to be able to comprehensively analyse the empirical data much attention was given to summarising and categorising all of the relevant data from the interviews.

The themes into which the data was categorised form a logical path for the empirical results of the thesis. First, the data regarding the current state of the case company's business controlling function was summarised to categories comprising of the general overview of the current state, challenges concerning the support overall, challenges related to information provision, and challenges concerning the current systems and tools. Furthermore, perceptions regarding the different approaches to reporting was given its own category. When it comes to the improvement requirements identified in the case company, based on the data these were categorised into five categories concerning the people and roles, processes, information and reporting, systems and tools, and accounting and calculations. Finally, within the theme concerning the business orientation of business controlling the data was categorised to current expectations, success factors, challenges and risks, and benefits. The empirical results were written and presented based on these categories and by combining them. During the writing of the results the Finnish comments that were used as quotes had to be translated to English. Therefore, it is possible that the translating caused some slight nuances to the quoted answers.

4. EMPIRICAL RESULTS

This chapter presents the empirical interview results of the research. First, in chapter 4.1 the current state of the business controlling function in supporting managerial work and decision-making in the case company is comprehensively analysed and discussed. Second, in chapter 4.2 the improvement requirements identified during the data analysis for the business controlling function to better support the business are first presented. Furthermore, in this chapter the results regarding the business orientation of business controlling are discussed and presented.

4.1 Business controlling in supporting managerial work and decision-making

This current state analysis of the business controlling aims to establish a thorough understanding of the role of business controlling in supporting business management in the case company. First, the current state is analysed on a broader level identifying the characteristics and issues regarding the support from business controlling on the different levels, functions and areas in the organisation. Next, the current state regarding the information provision as well as systems and tools are presented in their own chapters. Furthermore, the perceptions in the case company regarding the different approaches to reporting are discussed. Finally, the identified challenges concerning information provision and current systems are discussed. In the following chapters the business controlling function in Finland is referred to as either the global or centralised BC function. In turn, the business controlling functions around the world in different areas and countries are referred to as local business controlling functions.

4.1.1 Overview of the current state

When asked on a broader level to describe how business controlling is currently supporting the business, the majority of the interviewees from business management perceived the support in managerial work and decision-making to be in a fairly good state. The perception on the current state seemed to be most positive at the highest level of management. Interviewee from the top-level management highlighted:

Business controlling currently supports top management in both daily work and strategic decision-making very well. We have improved a lot in particular from controlling the business to supporting the management and participating in management. In this regard we have clearly improved during the last year or so. – Global business manager (1)

Out of the three business units (BU) in the company two of them have dedicated business controllers. The support from BC was perceived by the Business unit managers of these two BUs to be very good at the BU-level. Although business unit 1 does not have a dedicated business controller, Business unit manager (1) highlighted that he also receives strong support from BC overall. According to him, at the moment the support from BC comes mainly in the form of high-quality reports and tools that enable the business management to conduct analyses by themselves. Furthermore, he emphasised that if business unit 1 had a dedicated business controller similar to the other two BUs, this person would have to be extremely close to the business to be able to add value.

Although the general perception on the current state was fairly positive, it was evident from the interviews that there is room for improvement. Business unit manager (1) stated that the current level of support from business controlling is not at either extreme. He further elaborated that in some aspects the support is very good but in some it is lacking. Area manager (2) more directly suggested that BC could and should support the business better. What seemed to be a common view among some interviewees was that the higher the level of management the better is the support, and when moving down the organisation the level of support decreases:

At the top management level, a lot of support is received in terms of information and overall support and so on. But when going one level down there is a clear need for more support and partnering. – Area manager (2)

Furthermore, Global business manager (2) identified significant decrease in the support provided by business controlling to operations during the last year. The reason for this was that previously there had been a dedicated project controller supporting operations. This person was currently tied to the ongoing ERP-project. Therefore, the lack of support in operations from business controlling was seen as a very negative aspect:

We had a project controller in the top management team [of operations] who presented financial matters every month and highlighted what has happened and what is coming ... helped us make the right decisions. This kind of analytics and service we are missing at the moment and the resulting 'repair debt' is constantly piling up. – Global business manager (2)

Thus, he argued that business controlling is currently highly invisible as a function especially when there is no longer a participant from finance in the management team and as no efforts have been made to fill this gap. Therefore, managers in different levels in operations do not have access to needed analyses which would enable them to better plan for the future. Furthermore, he highlighted the negative aspect that because of the lack of support from business controlling a lot of different problems at the moment come as a surprise to the business management and these problems are then fixed afterwards.

Furthermore, there was a significant contrast on the perceived level of support from the centralised business controlling function in Finland and the support from local business controlling functions in the areas and countries. The majority of interviewees emphasised the lack of support from local business controlling. As one interviewee described:

If a decision needs to be made concerning the business in some country, the support is never received from the local controller in that country. Instead, the support comes from either the centralised business controlling function here [Finland] or from the country's business management. – Business unit manager (1)

Some interviewees highlighted that the focus of business controlling in the areas and countries is too much on the legal side of things. Business unit manager (1) argued that business controlling is currently just a local governance entity in many countries instead of being a real business controlling function. Business unit manager (2) also described the situation:

In the country units many controllers focus on the legal aspects, which frankly has no significance in the broader context of the business. – Business unit manager (2)

The perceptions on the current state from the financial management side were in line with these notions. The interviewees from financial management in the areas perceived the business controlling functions in their respective areas to be mainly focused on financial issues and reporting. They also suggested that similar situation could be identified in other areas as well. Finance manager (3) highlighted that the business controlling in his area is not where it should be in terms of being a partner to the business. Likewise, Finance manager (2) stated that at the moment the focus is too much on the side of statutory reporting and the role of finance in the area is only to collect and provide information to the business management:

Today we are just doing the generation of data or collecting of data. We should rather spend more time on analysing this data and on supporting the business. – Finance manager (2)

The interviewees were also asked about the support from business controlling specifically in decision-making processes. What was interesting to see was that even when asked directly about the support in decision-making and decision-making processes, most of the interviewees continued to discuss the matter on a broader level relating to their work. This may point to what is discussed in literature about decision-making often being a relatively small aspect of managerial work (Hall 2010; Jönsson 1998). It seems that managers find it easier to discuss business controlling's role in their work more broadly and it may even be difficult for them to identify situations where specific decisions have been made. Therefore, despite the researcher's efforts to probe answers regarding the support in the context of decision-making specifically, the empirical results primarily address the supporting role of business controlling on a more general level.

None of the interviewees from business management identified any situations where the support from BC was seen as redundant or unfit for the purpose. Instead, Global business manager (1) highlighted that the business rather has not always taken advantage of all the support that has been provided to them. Business unit manager (2) agreed to the same notion and explained:

There is plenty of support given ... and I must admit that often it would be possible to leverage even more of the provided support. The available support should be taken advantage of more than it is today. – Business unit manager (2)

An important aspect on the support from BC is whether it is active in the way it supports the business or if the support is rather given upon request from the management. The majority of the business management interviewees perceived the support from the centralised business controlling function to be very active, especially when the top management was concerned:

[The support] is very active. We have certain must-wins ... regarding financial performance and forecasting. If something is lagging behind, then the business controlling will be at the forefront as the first one to raise the alarm. – Global business manager (1)

Area manager (2) stated that when it comes to the activeness of support, it is proactive at the top management level but at lower levels the support depends on what is directly requested from business controlling. He explained that “if you ask for support you get it but if you don’t then everyone is busy and no support will be provided”. Again, similar notions were highlighted when observing the local business controlling functions. Business unit manager (3) stated that when the areas and countries are concerned, the support is clearly less active than in the business controlling function in Finland. Likewise, Finance manager (3) stated that currently the support is not as active as it should be and it is mainly given on request. He further described the situation:

What I see is that the business is not really asking for support when they need some support. They are always trying to solve their problems by themselves instead of asking because we in finance haven’t been that active to support them. – Finance manager (3)

The discussion above describes on general level the current state of the business controlling in the centralised function in Finland and also locally in different areas and countries. The key findings are summarised in Figure 6 and categorised based on whether the finding concerns the global business controlling function or the local ones in the areas and countries.

Overview of the current state	
Global	<ul style="list-style-type: none"> • Comprehensive and active support at highest management and business unit level • Top management level support in good state but requires improving • Lack of support in operations • Support lacking and reactive in lower levels of the organisation • All available support not utilised by management
Local	<ul style="list-style-type: none"> • Support lacking in areas and countries • Support not active and given upon request • Business controlling functions mainly governance entities • Too much focus on legal aspects • Focus mainly on financial issues and reporting • Focus mainly on collecting data and providing information

Figure 6. Overview of the current state of business controlling in the case company

Based on this discussion and as can be seen from the summary above, significant differences and shortcomings could be identified regarding the supporting role of business controlling in different levels of the organisation and in different areas and countries. The discussion highlights these differences from the perspectives of both financial and business management. In the next chapters the current state is discussed in more detail by focusing on the support from the perspectives of information provision and current systems and tools.

4.1.2 Information provided to management

The support from business controlling in terms of reporting and information was generally perceived to be on a good level in the case company. Business unit manager (1) argued that the reporting and support given by business controlling is at such a level that there are not any situations where the provided information or its quality would prevent a decision from being made. Global business manager (1) described the information provided to him in the following way:

[Business controlling] provides extensive and diverse financial data but also analysis based on the markets and business experience. The analysis is not only numerical but also qualitative, and the numbers are complemented with written and verbal information. – Global business manager (1)

Business unit manager (2) and Business unit manager (3) highlighted that the dedicated business controllers of these BU's provide excellent support in terms of information. Business unit manager (2) explained that when the official reports and figures are prepared the business controller has already analysed the numbers and identified the biggest deviations that require attention. These are then summarised and commented in a detailed controller's report. He emphasised that the business controllers are very experienced and know the business well and thus are able to provide this information and support. Business unit manager (3) also had a very positive view on the information provision aspect and explained that the dedicated business controller highlights the key points that describe

what has happened and what should be given attention. This enables the business management to quickly grasp the current situation of the business and where it is headed. He did however note that this aspect of analysing and highlighting the key points could be increased even more in the future.

Although the interviewees from business management generally agreed that business controlling provides good reports and analyses monthly to the top management, when it comes to the management in the lower levels of the organisation the situation seems to be different. Area manager (2) argued that he is provided with good reports and analyses but when moving one step down in the organisation managers struggle to understand the figures, what is behind them, and from where they can request for more detailed information.

Based on the interviews there seems to be a strong reliance on Excel in many areas of reporting in the case company. Area manager (2) argued that Excel-sheets are extensively used by the finance function. He explained that for example the project reporting is provided monthly in the form of Excel-sheets. Furthermore, the numbers from subsidiaries are pulled together almost exclusively from various Excel-sheets. Business unit manager (1) also described the current situation:

There is still a lot of manual reporting done globally. Different kinds of Excel-templates are flying back and forth at the turn of the month. – Business unit manager (1)

Based on the discussion above it seems that when business controlling is closely involved in management the information provision aspect is also positively impacted. Again, when it comes to the lower levels of management, it appears that support from BC in the form of information and reports is not sufficient and there is a need for more involvement and interaction from business controlling. Furthermore, the extensive use of Excel in reporting suggests that the situation in the case company is far from optimal when it comes to information systems. The issues concerning information provision in the case company are discussed more comprehensively in chapter 4.1.5.

4.1.3 Current systems supporting information provision and usage

A few information systems and tools that are used by the financial and business management in the case company were brought up by the interviewees. Furthermore, the systems and tools used to provide information to the management were seen as a highly important aspect of the overall support from business controlling. For the corporate level management business controlling uses Hyperion Financial Management (HFM). The monthly standard corporate reports are generated and provided through this system. Overall, HFM

was seen by the financial management to serve its purpose well in the case company and therefore the system was only briefly mentioned by the interviewees.

The system that received the most attention in the interviews with both business and financial management was a system called Cognos. As an interviewee from the financial management stated:

The way this happens today is that tools are becoming more user-friendly and a manager himself can go and do some sort of data analysis and make some decisions on their own ... With current tools like Cognos they can do slices and dices themselves. – Finance manager (1)

Interviewees from business management either directly stated or it was implicated in the discussion that Cognos is one of the most important tools in their daily work. Generally, Cognos was perceived to be a good and easy to use system. However, there also were arguments claiming that it is old and somewhat inflexible. Business unit manager (3) emphasised that Cognos has become a vital tool for the business management. The monthly reporting package that is created for the business management is provided through Cognos. Furthermore, according to Global business manager (3), Cognos provides the means for the business management to view the performance of the business, manipulate the information and conduct various analyses based on the information by themselves. Business unit manager (1) also highlighted the importance of Cognos and having good tools overall:

I manage the business largely through numbers and I perform a lot of analyses by myself. In order to be able to do this there must be good tools available and they need to be in a good condition. Cognos is a really good reporting environment. – Business unit manager (1)

Likewise, Global business manager (2) highlighted that new reports have been constantly developed to be provided through Cognos, and at the moment Cognos is used very actively by several people in operations. Because Cognos has become such an integral tool in the business management's work, many interviewees expressed their worry about losing Cognos and its functionalities when the new ERP-system is implemented. Therefore, it was emphasised by some interviewees that the new ERP-system must not result in the situation becoming worse when it comes to business management being able to access and use information themselves.

Many interviewees agreed that the current ERP-system called Lean ERP is very good. According to Business unit manager (3), Lean ERP serves the local business management well at the moment. Global business manager (2) also highlighted that the current ERP is an extremely good system especially for the case company. However, there is currently no global ERP-system and because of this there is no global visibility and transparency

when it comes to ERP-systems in the case company. In different areas and different countries there are various versions of ERP's which may not be integrated globally or different ERP-systems all together. According to the interviewees, the new ERP-system that is currently being implemented should solve many of these problems related to the various ERP-systems globally. However, many interviewees showed scepticism as to how well the new system would eventually serve the business and its management.

As a conclusion, the self-service tool Cognos and the ERP-system emerged as having the most important roles in the daily work of both financial and business management. While in many aspects the perceptions in the case company are positive when it comes to these systems, the discussion above indicates that there are potential issues related to them as well. These issues are discussed in more detail in chapter 4.1.5.

4.1.4 Perceptions on the different approaches to reporting

When it comes to the information and reporting, it was important to find out how the financial and business management perceived the different approaches to providing information in order to understand the direction that should be pursued by the case company in the future. The interviewees were asked about their preferences towards fixed-reports (i.e. ready reports provided to the management) and self-service-reports (i.e. managers are able to customise and retrieve needed reports themselves). The view shared by the majority of these interviewees was that both types are important and required. The interviewees explained this in the following ways:

Both are needed. These fixed-reports are important because ... it makes it easier to compare between teams and it is easier to discuss when the reports are uniform. If everyone constructs their own reports by themselves then the comparison becomes difficult. The basic reporting set must be one that is agreed upon together.
– Area manager (2)

I like to be able to tailor the reports. Certain reports must be ready and in a specific form. But there also must be the possibility to analyse and customise reports by ourselves, not just by the controllers. – Business unit manager (2)

However, some interviewees emphasised the importance of one or the other. Area manager (2) stated that he is more and more against the self-service aspect as this may lead to the situation where every report must be done by the business management themselves. He emphasised the importance of having certain level of service in the form of fixed-reports and analysis from business controlling. Similarly, Finance manager (3) stated that he would rather move in the direction of fixed-reports. He explained the reason for this and highlighted the danger regarding self-service:

As most of my partners are from sales and service, the interpretation of these [self-service] reports might be quite difficult. Sometimes they are analysing them but they are getting wrong results out of that. – Finance manager (3)

Therefore, he saw the best approach to be that the business management is provided with fixed reports which allows them to have an overview of the information, and then the finance people can provide them with additional analyses and information when needed. Global business manager (2) also identified the danger of business managers coming up with wrong information by themselves. He also highlighted the cost aspect regarding this matter and argued that the most cost-efficient way is to have the certain parts of reporting done centrally and given as fixed-reports.

Global business manager (3) in turn argued in the favour of self-service, which seems to be highly influenced by the department's independence regarding the support from BC. He described:

It is good to develop it[self-service] as far as possible because it enables everyone to do [create reports of] whatever is interesting at a given moment. Then you don't need to request for a specific report [from BC] if you can do it yourself because the tools are easy enough to use. – Global business manager (3)

Many interviewees agreed that the efficient implementation and usage of self-service requires that the system environments are well designed. Customising and retrieving the reports must be easy and straight-forward. It was also suggested that the self-service elements must be modular so that the reports can be easily constructed from different elements. Furthermore, interviewees emphasised that self-service must not result in business management spending more time tinkering with various Excel-sheets to come up with the information and analyses that they require.

To conclude, there is a requirement to have established and uniform basic reports provided to the management in the future as well. The attitudes towards increasing the self-service aspect of reporting were mainly positive and many interviewees highlighted that improving the self-service tools is important in order to enable business management to be more self-reliant when it comes to reporting and analyses. Some of the arguments against increasing self-service in the future seem to potentially stem from business management's lack of knowledge or skills to use the tools effectively. Therefore, when increasing the self-service aspect, it is important to ensure that the tools serve the needs of the management and are easy to use. Furthermore, business controlling needs to provide business management with comprehensive training on using the tools to enable the management to use them to their full effect.

4.1.5 Challenges related to information provision and systems

The interviewees highlighted several challenges related to the information and reporting in the case company. Furthermore, various challenges related to the current information systems and tools could also be identified from the interview data. When it comes to the current systems and tools, majority of the identified problems or lack of functionality concerned the system called Cognos. Furthermore, interviewees brought up challenges related to the current ERP-systems. These challenges and shortcomings are summarised in Table 4. The challenges related to systems and tools are also categorised in the table on the basis of whether the issue concerns Cognos or systems on a more general level.

Table 4. Challenges in the case company related to information provision and systems

Area	Challenge	Identified by
Information and reporting	Reporting only on monthly basis	Financial management Business management
	Errors in local reporting	Business management
	High risk for error due to manual reporting	Business management
	High number of manual transactions globally	Business management
Systems and tools	Unable to get a detailed view of figures and the underlying causes	Financial management Business management
	Information available only on monthly basis	Business management
	Information spread all over the system	Business management
<i>Cognos</i>		
<i>General</i>	Lack of globally integrated ERP-system	Financial management Business management
	High risk for error due to various systems	Business management
	Retrieving data from systems complicated	Financial management

The challenge on information and reporting that was emphasised the most in the interviews concerned the monthly frequency of reporting in the case company. Finance manager (2) argued that monthly reporting served the business well in the past but today things are changing faster. Therefore, many interviewees argued that with the way the information is provided today the business management is only able to look into matters after they have already occurred and when it is already too late. Furthermore, an interviewee emphasised that because of this, the business management has to make decisions nearly instantly and they are unable to ensure the correctness of the numbers:

The numbers are ready maybe on the 5th of the month, and you have no time to go through the numbers because you leave your own reports maybe on the 7th. You blindly look at what has happened, make your own reports, and only afterwards

you are able to inspect whether all of the numbers are correct. – Business unit manager (2)

According to Business unit manager (1), there are often inaccuracies and errors in the local reporting when it comes to some of the smaller countries. He emphasised that because of this, business management is not able to fully trust the numbers provided by these countries. He noted that while this does not necessarily hinder decision-making it certainly does not support decisions regarding correct actions. However, usually the errors in the locally reported numbers are identified in the centralised business controlling function in Finland. He explained the cause for these errors:

The reporting is generally good when everything works but due to the large number of manual transactions there is significant amount of errors in the [local] reporting. – Business unit manager (1)

A challenge related to the current systems and tools that came up several times in the interviews concerned the difficulty of getting a detailed view of the information. Many interviewees stated that they are unable to gain a deep enough understanding of the information and of the causes behind the numbers provided through Cognos. Area manager (1) explained that the information in Cognos is shallow and it is difficult to dig deep into the information. Because of this, the local controller of this area had created an Excel-report that enables the management to get a deeper view on the specific product lines and allows them to do analysis on the numbers. Finance manager (3) also highlighted that although the information is, in fact, available in Cognos, all of the required information is not visible in details. He further explained that for instance it is not easy to compare the data with the budget or with the plan. Furthermore, such functionalities as being able to drill down into specific contracts is currently missing from Cognos. As a solution to the problem of figures being available but not visible in Cognos, an Excel database had been implemented to allow financial management to retrieve the figures more easily.

Business unit manager (3) also highlighted the challenge of not being able to gain a detailed view of the numbers and explained the dangers related to it:

It is often difficult to dig deeper into the causes as to why something has happened. Of course, many things are clearly visible and the causes easily known, but there are also a lot of things where [the causes] are unknown which results in the risk of making the wrong decisions. – Business unit manager (3)

Closely related to this, Business unit manager (2) emphasised that cost tracking and reporting is currently lacking significantly in terms of tools. Currently it is impossible for business management to see what the costs in specific accounts constitute of as there is no tool available for this kind of purpose. He explained that at the moment when it comes to cost reporting, the business management is provided with specific fixed reports with which they have to try and manage. He further claimed that these reports are not used

much because they are not very good and thus not useful to the management. An example of the problems that this causes is that during budgeting business management often needs to dig up old reports to see what they contain.

The challenge regarding the frequency of reporting was already discussed earlier. A challenge closely related to this from the perspective of systems and tools that was highlighted by many interviewees concerned the timeliness of the information. At the moment business management receives reports only monthly. Therefore, the lack of a real-time view of the business was seen by the business management as a highly prominent issue at the moment. Currently the systems and tools do not provide easy access to seeing what is happening in the business at a given time:

We only get the monthly reports when they are ready. We are unable to get almost any kind of information from the databases and tools during the month. If I needed to see what has happened today or yesterday, it would be quite difficult. – Business unit manager (2)

Some interviewees did however mention that viewing the daily situation of the business in Finland is currently possible through the Lean ERP-system to some extent. However, due to the difficulty of using the system this requires a lot of effort and knowledge of using the search functions of the system. Therefore, ready-made queries had been developed for some of the interviewees to enable them to access the current information from the system. Nevertheless, these interviewees agreed all the same that this solution is far from ideal. Furthermore, Lean ERP is not integrated globally and therefore it is not possible to view the daily situation globally. What is more, a problem regarding the information being spread around the system was highlighted by one interviewee:

There is a lot of information available in Cognos, but the information is spread all over. If I want to see some country-specific things I have to look here, if I want to see some product-specific things I have to look there. – Business unit manager (1)

What was seen by many interviewees as a significant challenge concerned the lack of a globally integrated ERP-system in the case company. Global business manager (2) argued that because every country does not have an integrated ERP-system, what follows is that there are sometimes errors in the numbers reported by these countries. Therefore, sometimes the reported figures must be probed in detail and re-calculated in order to understand how a specific project is going. Another challenge related to the lack of integrated ERP-system which was brought up by both the financial and business management concerned the number of different systems in use. The interviewees argued that because there are many different systems and tools in use in the case company, retrieving the data and figures from the systems is very complicated at the moment. According to Finance manager (2), Lean ERP is not in use in all of the countries in the area. Because of this the data must be retrieved from several systems and many things must be related together within

these systems which causes unnecessary difficulties and additional work. Likewise, Finance manager (3) argued that at the moment the correct figures must always be retrieved from at least two or three different sources. Many interviewees suggested that there should be one uniform and globally integrated system where all the required data could be accessed, and thus the expectations for the new ERP-system were high regarding this aspect.

To conclude this sub-chapter, there seems to be lot of room for improvement when it comes to the current systems and tools in the case company. There are also some issues related to information provision and reporting. However, these issues also largely stem from challenges related to information systems. Due to the lack of certain functionalities, different manual workarounds and tools have been developed mainly in Excel. This in turn increases the risk of errors in the reporting because of the large amounts of manual work and transactions. Furthermore, because of the lack of globally integrated ERP-system, at the moment much time is spent on validating the data and on ensuring its correctness. Therefore, it seems that with the current systems and tools much effort is required from business controlling to performing activities that do not necessarily add value to the business.

4.2 Improving the support for managerial work and decision-making

This far the current state of the business controlling function and its role in supporting managerial work and decision-making have been discussed. Furthermore, several challenges in the case company have been identified and discussed based on the interviews related to the general support from business controlling, information provision and reporting, and current systems and tools. In this chapter the improvement needs that surfaced from the interviews concerning the different areas related to business controlling are discussed. The improvement areas are grouped into five categories. The categories and the improvements included in these categories are summarised in Table 5.

Table 5. Improvement requirements identified based on the interviews

Category	Improvement
People & roles	Bring business controlling closer to the business
	Involve business controlling in operative business
	Shift focus from legal matters to real business controlling locally
	Stronger ownership from business controlling locally
	Training and understanding of products
Processes	Homogenise processes globally
	Improve global processes
	Centralise or outsource transactional processes
Information & reporting	Increase the frequency of reporting
	Improve overhead cost reporting
	More thorough analyses on numbers with focus on key points
	More analyses on projects
Systems & tools	Strong involvement in ERP-system implementation
	Data collection on a more detailed level
	Real-time view of the business
	Ability to get a detailed view of numbers
	Ability to compare performance to different time periods
	Market intelligence
Accounting & calculations	Customer profitability tracking and reporting
	Product profitability and managing product lifecycle
	Improve project costing
	Improve labour rates

As can be seen from the table above, various improvement requirements could be identified from the interview data. These requirements vary from improvement needs that were highlighted and agreed upon by many interviewees to improvement requirements suggested only by some interviewees individually. The improvement needs are discussed in the next chapters in more detail.

4.2.1 People, roles and processes

In previous chapters there has already been discussion on the current state of business controlling's involvement in the business. This chapter focuses on discussing the improvement needs that emerged during the interviews regarding the people and their roles

in the case company. Furthermore, this chapter also discusses the improvement needs concerning the current business and financial processes in the company. Majority of the improvement requirements identified by the interviewees regarding the people and their roles in the case company called for greater and closer involvement of business controlling in the business.

The majority of the interviewees from both financial and business management locally and globally highlighted the importance of bringing business controlling closer to the business. When the interviewees were asked to arrange their suggestions on improvement areas in order of importance, often the need for closer participation in the business and a more business-oriented role from BC was highlighted as the most important one. Furthermore, some interviewees suggested that if business controlling succeeds in getting closer to the business, then it likely automatically leads to improving some of the other areas that the interviewees mentioned.

Global business manager (1) emphasised the need to transfer the operating model established on the high-level management in Finland, where financial and business management work together as partners, to the area organisations in order to enable better cooperation between businesses and functions. He argued that this is currently lacking in several countries. He further highlighted that the goal is that business controlling functions in the area and country organisations participate more in the sales processes. Finance manager (3) stated that his main concern at the moment is to get close to the business and become a recognised partner. He further argued that if business controlling achieves this then they would be able to support the business not only with financial issues but more broadly in various matters. Likewise, Business unit manager (3) argued that business controlling must shift from mainly reporting to participating in the business and become an integral part of business processes. However, he acknowledged the problem regarding the current resources:

This [closer BC involvement in business] probably means that we may need to increase the number of controllers, we should probably have dedicated business unit controllers, otherwise it is not possible. We need to evaluate whether it pays back. I believe that it would. – Business unit manager (3)

According to Area manager (2), the most important thing at the moment is to have business controlling participate in the operative business. He argued that there should be dedicated persons from finance and BC with certain defined timeslots according to which they participate in supporting the different teams. This would ensure the interaction between financial and business management and would result in increased understanding on what kind of support, numbers and analysis the teams require. He further emphasised that controllers need to be physically present in team meetings and executive boards on different levels of the organisation. He summarised this improvement requirement as follows:

Business controlling should participate in the operative business of the various teams. ... [T]here is a need for dedicated timeslots where they [controllers] participate in meetings and [are available so] the teams would know which person they can turn to when there are challenges related to numbers or need for analyses.
– Area manager (2)

As was discussed in previous chapters, some interviewees considered the local business controlling functions in the areas and countries to be mainly administrative organs focused on legal aspects. Business unit manager (1) emphasised that there is a clear need to improve the situation and shift the controllers' focus in the areas and countries from legal matters to real business controlling. He further argued that BC in the countries must develop and analyse the local business in cooperation with the local business management. Similarly, Business unit manager (2) emphasised that the business controlling functions in the countries should not spend so much time on the legal aspects and on optimising the profitability inside these legal entities. Instead, the controllers must adopt a completely different perspective in order to actually support the local business management in the countries.

Furthermore, Business unit manager (1) suggested that business controlling in the areas and countries must take stronger ownership of various matters in their respective countries. He provided as an example the currently ongoing effort to strengthen the business organisation of a certain country. In such situations there is a need that the finance function in the local organisation assumes ownership of driving the effort so that the business management in Finland is not required to take care of all the related aspects and push these one-by-one to the area organisation. He explained the situation at the moment:

Currently we are often confronted with various questions [from the countries] and the expectation is that the all the decisions are made here [in Finland]. The area organisations should prepare suggestions and action plans themselves. It is often difficult when we [in Finland] have to think from the ground up of what should be done. – Business unit manager (1)

As an improvement area that concerns the capabilities and competence of the people in finance, an interviewee from financial management emphasised the importance of providing more training on the company's products to the finance employees. Finance manager (2) argued that currently there is no training provided and therefore the finance team lacks understanding of the products:

We need to have much more training on the products to understand where we are selling, what kind of product-mix we are selling and to which customers we are selling. – Finance manager (2)

He further highlighted that the controllers must know the products because the business management expects them to be able to provide answers regarding product-wise analyses.

At the moment the controllers are not prepared to answer questions on products regarding for example the gross margin of a certain product. Furthermore, he argued that better understanding of the products and how they are utilised by customers will ultimately lead to better understanding of the business itself.

When it comes to the business and financial processes in the case company, according to the interviewees they currently vary significantly between different regions and countries. Therefore, interviewees from business management stressed the need to improve and homogenise these processes globally. Global business manager (1) argued that with the new ERP-system implementation it is extremely important that the global processes are improved to improve efficiency. The new ERP-system provides an excellent opportunity for this. At the moment there are a lot of different things done globally all over which causes inefficiency, and there is need to centralise these processes. Therefore, he further highlighted the importance of strengthening the financial services aspect as the main way to improve the efficiency. In order to enable business controlling to better focus on supporting the business the transactional processes need to be streamlined and centralised into service centers more than they are today.

Similarly, Global business manager (2) argued that at the moment there is not enough effort on homogenising the processes between different countries, or if there is it is not visible or communicated to the business management. He argued that all of the global processes where ERP-systems and money is involved should be comprehensively evaluated, streamlined and homogenised. Business unit manager (3) highlighted the need to homogenise the processes globally as well. He explained the importance and the current situation:

It would enable you to understand the numbers in the areas and you would be able to quickly tap into the problems. When observing [for example] some Asian country's profitability we often wonder how the things have been recorded and what something really means. There may be a lot of things in the background that lead you to wrong conclusions and decisions. – Business unit manager (3)

The improvement areas discussed above highlight the recurring theme in the interviews regarding the need for more involvement from business controlling in managing the business in the case company. Furthermore, the findings concerning the financial processes are closely tied with the need for the increased business orientation of BC in the company. Greater focus must be given to improving, homogenising and centralising these processes that add no value to the business and therefore currently hinder business controlling's shift towards more business-oriented role. The business orientation of business controlling is further discussed beginning in chapter 4.2.5.

4.2.2 Information and reporting

In earlier chapters the current state of business controlling in terms of information provision and reporting as well as current systems and tools was discussed and several challenges were highlighted. In this chapter the improvement requirements concerning the challenges as well as other improvement needs related to information and reporting that emerged from the interviews are discussed.

An improvement area identified by several interviewees from both financial and business management concerned the timeliness of the information. This aspect is closely related to both the reporting and information systems and because of this some interviewees discussed the improvement need in terms of the frequency of reporting and some in terms of real-time information systems. As was discussed earlier, at the moment the business management receives reports on monthly basis from business controlling. Therefore, the need to have more frequent reporting and real-time information of the business was emphasised by most interviewees. Finance manager (2) argued that the frequency of the reporting should be increased from monthly to weekly or even daily. He saw this improvement to be necessary as the business is changing at a faster pace today and it is important to be able to take necessary steps early if some aspect of the business is going into the wrong the direction.

Business unit manager (2) highlighted the need to improve overhead cost reporting as the most important requirement. He explained that at the moment cost tracking of projects is accurate but when it comes to overhead costs the current situation is unacceptable. He summarised the situation as follows:

We get overhead cost reports on monthly basis. If I want to inspect some overhead cost in more detail and see what it constitutes of, there is no way for me to see this. This is essentially the whole problem with cost reporting at the moment. – Business unit manager (2)

He argued that by improving cost reporting the case company could save a lot on costs. At the moment various costs are approved by the business management that would actually require further inspection to determine if they are correct, if they could be reduced or even avoided all together. However, at the moment the reporting and information on costs does not enable this and therefore the costs are approved blindly by the business management. Therefore, he argued that this aspect is closely related to risk management and urgently requires improving.

Some interviewees also highlighted the need for more analyses from business controlling. Business unit manager (3) highlighted the need for business controlling to analyse the numbers more comprehensively and this way produce not only numerical information but information that is more “finished”. He explained that currently much time is spent by

the people responsible for different areas of the business such as product groups in analysing numbers by themselves. Therefore, if the main points and themes from the reports and numbers would be identified and elaborated on by business controlling, then managers would have more time to focus on the actual business. Furthermore, when the reporting is done, the most important deviations should already be addressed within the reports. This way managers would not spend time wondering what has happened and the risk of performing reactive and unnecessary work would be reduced. However, he acknowledged that the prerequisite for this is to have enough resources in business controlling for performing these analyses.

In turn, Global business manager (2) emphasised the need for more analyses when it comes to projects. He argued that it is irrelevant to compare individual projects to each other because the projects in the case company are typically highly unique. However, he explained that by comparing and analysing large numbers of projects as a whole, it would be possible to identify what causes the deviations and differences between projects. It would be possible to pinpoint, for instance, whether the cause is a different customer, different delivery organisation, or simply badly negotiated contracts. He further emphasised that by having these analyses and the resulting information, the business and operative management would be able to develop a better understanding of the project business and take corrective actions when necessary.

To conclude, while the information and reporting aspect of business controlling's support is on a fairly good level in the case company based on the interviews, there are still important areas requiring improving. However, many of these requirements are strongly linked to the information systems and tools and their limitations. Therefore, the above discussion suggests that the majority of these improvement areas could be addressed by improving the information systems and tools in the case company.

4.2.3 Systems and tools

When it comes to the current systems and tools in the case company, several improvement requirements were suggested by the interviewees with many of them emerging from the issues that were discussed in previous chapters. An area that is not necessarily an actual improvement requirement but rather an aspect that requires attention concerned the ERP-system implementation that was currently ongoing in the case company. Furthermore, some of the other identified improvement needs discussed later in this chapter are closely related to the ERP-system and expected to be improved when the new system is implemented. When asked about improvement needs, several interviewees stressed the importance of successfully implementing the new ERP-system. Business unit manager (1) argued that above all else the most important thing is to implement the ERP-system in a way that the business is not compromised. Likewise, Global business manager (1) highlighted that succeeding in the ERP-project is the highest priority at the moment.

As was noted in earlier chapters, many challenges currently stemmed from problems or shortcomings related to the various ERP-systems used globally in the case company, and thus the interviewees had big expectations regarding the new globally integrated ERP-system. Therefore, Global business manager (2) argued that it is of utmost importance that business controlling is involved in the ERP-system implementation as much as possible to ensure that all of the important aspects and required functionalities are accounted for. He further emphasised that this must be given more attention than currently is. In terms of ERP-systems, Finance manager (2) placed highest priority to the need to have a better ERP. He explained what this means:

The very first thing is to have a better ERP. When I say ERP, that means collecting data on time and in very granular form. This can only be done with a global ERP which interfaces very easily with finance and the project teams and all the departments. – Finance manager (2)

Therefore, he argued that there is a significant need to improve the situation so that information can be collected on a detailed level into a single integrated system in a standardised way. He further explained that by accomplishing this, business controlling would be able to reduce its current workload. This, in turn, would enable them to focus more on activities that add value to the business.

As was mentioned earlier, the lack of a real-time view of the business was seen as a major challenge in the case company. Therefore, many of the interviewees from both financial and business management emphasised the importance of having a system or a tool that provides the means to access real-time information regarding the business. Global business manager (1) highlighted that currently it is often already too late when the figures are made available in the beginning of the month. Finance manager (2) emphasised the importance of this improvement:

If we have an information system, which can get the data on daily basis or hourly basis, then decisions about changing our way from plan A to plan B would be much easier. Today the system is that we report every month, if something goes wrong it is already gone. – Finance manager (2)

Area manager (2) also explained that having access to real-time information would enable the management to know the current situation of the business and to understand the business better overall. He further highlighted that the expectations for the new ERP-system are high regarding this challenge and the aim is that the system eventually provide an online view of the business.

Another challenge mentioned earlier concerned the lack of functionality in the current systems to get a detailed view of numbers in order to understand what's behind them. Therefore, Business unit manager (2) highlighted the improvement need to be able to dig deeper into the figures and even into specific transactions. However, he acknowledged

that this depends on how accurately and in detail the data is reported to the systems by the various functions in the case company. Therefore, in order to achieve this improvement not only the systems must be developed but it also needs to be ensured that the data is collected in the systems in detailed form. Global business manager (3) also emphasised the need to improve the systems to be able to view information on a more detailed level. Furthermore, he argued that it would be highly beneficial to be able to view data further back in history. This would allow for better business planning when the numbers regarding previous years could be observed. He argued that this is not possible at the moment either because of limitations posed by the current systems or because of the lack of skills on the business management's side when it comes to the functionalities of the systems.

Furthermore, one interviewee from business management suggested that it would be highly valuable to be able to compare current year's performance further back than just the previous year. Area manager (1) argued that business controlling should build tools that enable business management to compare current year's performance to, for example, last three years. He explained this suggestion as follows:

We are in a fairly slow-moving business. If you compare to past performance, sometimes it's not really relevant to compare only to the last year. We should really be comparing to the last three, maybe the average of the last three years as opposed to just comparing 2019 and 2018. – Area manager (1)

Another improvement requirement that was highlighted only by Finance manager (2) concerned the need for market intelligence. At the moment the controllers in his area do not have access to market information as there exists no system for this. He emphasised the importance of having this information and a system for accessing it in order to understand where the business is headed. He explained that currently all the information used by the finance team concerns the case company internally:

We [currently] take last year's numbers, we take current year's numbers, we create plans. But it has got no connection with the market. How big is the market? How much we can get out in sales? If we are losing some sales, why are we losing? – Finance manager (2)

He suggested that the case company certainly has market intelligence but for some reason it is not made available to the finance team in this area.

To conclude, there are many improvement requirements identified in the case company related to the current systems and tools. Many of these suggestions highlight the importance of developing the information systems and tools in the direction where they enable business management to be more self-reliant. The case company should implement these improvement needs as soon as possible in order to provide the means for business management to be more independent when it comes to information. This would likely

free up the time of business controlling from performing routine activities and thus reserve time to focus on more value-adding activities. Furthermore, according to some interviewees, many of these improvement requirements are expected to be addressed by the new ERP-system implementation. Therefore, it is highly important that business controlling is closely involved in the ERP-project to ensure that the required features will be implemented in the new system.

4.2.4 Accounting and calculations

This chapter discusses the improvement needs identified from the interviews regarding management accounting techniques and calculations. Some interviewees from both financial and business management placed high importance on the requirement to track customer profitability. The consensus among these interviewees was that there is a need to improve this aspect a lot in the future. Finance manager (1) explained its importance in moving the business forward and stated that the business profitability and the volumes that the customers generate must be tracked more than they are today. Business unit manager (1) also explained the importance:

We must begin to better understand customers and their business, what do we get from each customer and what kind of profitability. At the moment we don't know without significant manual effort where the money is coming from, from which customer and why. This must be improved. – Business unit manager (1)

Business unit manager (3) also emphasised the need to improve the situation regarding customer profitability tracking. He further explained that this would allow them to more easily identify to which areas and which customers the focus should be placed. The efforts could be directed to customers that provide good profitability for the company and in turn less effort could be directed to customers with a history of generating low profitability or even losses. Therefore, tracking the customer profitability would lead to improved actions and decisions.

The need to improve product profitability tracking and analysis was highlighted by interviewees from financial and business management. According to Business unit manager (3), the business is provided with good information at the product group -level. However, when moving to product profitability the information is lacking. He further emphasised the importance of having a better understanding in this regard in order to know which products are profitable and to make decisions based on this knowledge. Furthermore, knowing just the sales volumes is not sufficient as there may be other reasons that require deeper inspection such as the cost structure of a certain product. However, he acknowledged the potential challenges posed by the large number of different products in the company. Global business manager (3) also highlighted the need for more information regarding the products in terms of sales volumes and profitability. Furthermore, he emphasised the need to be able to obtain this information as far back to the past as possible.

From the interviewees Finance manager (1) placed the most importance on improving product profitability analysis. Furthermore, he explained the need to manage products throughout their whole lifecycle:

We need to be able to manage the lifecycle from R&D to end of life, to know when to exit a product, to know when you need a new product, and how much money to spend ... on R&D, and how fast that should happen. I think we're missing a lot of that information today and I think we're floundering on this whole R&D aspect. – Finance manager (1)

He further argued that currently R&D often takes too long and some of the focus areas are unlikely to generate the profits required to even cover the costs of R&D. Therefore, he emphasised the need for R&D to be better managed, controlled and reported on in the future.

Area manager (1) placed highest importance in improving the project costing in North America specifically. He explained that they have had problems in identifying the real costs of potential projects in the sales phase. At the moment, the costs of projects are reported but the data is not being used to improve the costing of future business. This has caused challenges regarding the pricing levels when compared to the company's competitors. He explained the situation:

We are often overestimating the costs and we don't help ourselves in that respect. We [could] maybe offer more competitive bids to make our ability to drive the business a little easier. I think that this kind of whole wrapping around the project business is really important. – Area manager (1)

He suggested that in order to improve the costing, past projects need to be analysed to identify where the real costs are happening. However, he explained that this aspect has recently started to receive focus after a new project controller was hired to the area. He further argued that if this improvement need would be successfully met, the case company would be able to win more capital projects in the area.

Another improvement area that was highlighted by one interviewee from both financial and business management concerned labour rates. The way that the labour rates are currently calculated and then used in service business causes the company to lose business. Finance manager (1) explained that the labour rates are calculated for a country or a region and then used to sell service agreements and demand service to customers. Within the labour rates different types of people are grouped together, some of them being cheaper and some more expensive. Therefore, these country-wide and global labour rates often cause basic services to be overpriced. According to Area manager (1), there is a clear need for the case company to be more dynamic with the labour rates:

In North America we have one single labour rate across the organisation for service ... There are some services that you want to quote at a lower price to be more competitive ... but we're kind of always using the same price level for everything we do and we're not able to be dynamic in our price setting because of that. – Area manager (1)

Therefore, he argued that there should be more variability in the labour rates across the organisation which would allow the company to be more competitive in the service agreement business. He further suggested that finance should assume leadership in showing these benefits of being more dynamic with the labour rates and therefore drive the effort of improving this aspect.

Based on the above discussion it seems that the need to develop and implement more outward-looking and forward-looking management accounting techniques has been identified in the case company. Some of these fit under the notion of strategic management accounting (Cadez & Guilding 2008) although none of the interviewees discussed these techniques using such term.

To conclude, there are several areas currently identified in the case company that pose challenges to the work of both financial and business management. Therefore, a number of improvement requirements and ideas emerged from the interviews to improve the supporting role of business controlling in managerial work and decision-making. Perhaps the most common and most emphasised notions highlighted by the interviewees concerned the requirement for business controlling to be more closely involved in the management of the business in Finland and in the areas and thus pursue a more business-oriented role. The next chapters discuss this aspect of developing the role of BC in business management towards what is labelled in the literature as the role of a business partner (Davis & McLaughlin 2009; Granlund & Lukka 1998).

4.2.5 Expectations regarding business partnering

Based on the interviews there is clear desire from the side of the business management in the company for business controlling to further shift towards the role of a business partner. According to Global business manager (1), the expectation is that business controlling adopts the role of an active partner where it is also willing to challenge the business management. He summarised that the target state is that BC and finance is closely involved in conducting and leading the business. In similar vein but with a focus on the local business controlling, Business unit manager (1) argued that the local BC functions in the areas and countries should strongly participate in achieving organisational goals. He further emphasised that in addition to becoming a partner to the business, the local BC functions should play the role of a sparring partner and be willing to challenge the business management in different matters related to the businesses locally.

Likewise, according to Area manager (1), there is strong desire in the current management team for business controlling to become more involved in the business. He further described this and emphasised the involvement in strategy:

What I would really like is for [Finance manager (1)] to work hard with the region and to encourage and maybe even require the local controller here to be much more involved in the strategy and the implementation of the strategy. And I see evidence of that already starting. – Area manager (1)

Although he highlighted the need for more active role from the local business controlling, he emphasised that the direction where the situation in North America is headed seems promising. In turn, Business unit manager (3) emphasised that he would appreciate more time from business controlling. He argued that business controlling would likely participate more actively in the business management if they had more time.

In turn, Global business manager (2) argued that there is strong desire for business controlling to evolve from crunching the numbers and become more visible to the business management. He further suggested that business controlling should elevate its status to a similar level of partnering as the HR-function had done some years ago. Area manager (2) also highlighted HR as a good example of the direction where business controlling should be headed. He explained that HR participates in team meetings part-time where they present the goals of HR and various statistics related to it. He further described his expectations regarding business partnering in the lower level business management:

Business controlling should participate in operative sales, project management, service-business, by physically participating in the executive boards of the different teams. And then support them with numbers and analyses, and in this way increase the interaction. – Area manager (2)

In contrast to the expectations of the rest of the business management, Global business manager (3) on the other hand argued that there is no need for increased business partnering when it comes to R&D. He did however acknowledge and emphasise the importance of pursuing the increased business orientation when it comes to the business units and other areas of the case company. He further explained that R&D is closely linked to the activities of the business units but the business planning regarding R&D happens inside these business units. Therefore, he argued that because R&D mainly takes care of their numbers themselves, as long as the tools are in a good state the support that they need from business controlling is mainly related to occasional ad hoc situations.

There is also high willingness to pursue the business partner role from the financial management's side. Although the business controlling is already perceived as exhibiting the attributes of a business partner in the highest level of business management, according to Finance manager (3) there is still a long way to go when the whole organisation is concerned globally. He explained his own view as follows:

Controllers are the only persons that have the overview of all processes and they need to use this knowledge. They need to provide their knowledge to the business. I'm not sure if all of them are even aware that they do have this experience. – Finance manager (3)

In this vein, Finance manager (2) also argued that finance should play a much more powerful role in the business than it does today. He emphasised that the finance team is sitting on much knowledge that should be leveraged to improve the business. He also explained the urgency to shift towards the business-oriented role:

If this controller team doesn't do this now, we will remain much behind. We are losing value as controllers unless we improve. [Furthermore], if they [business] cannot use the controllers for their benefit then the company is also losing opportunities. – Finance manager (2)

From the above discussion it can be concluded that the expectations and attitudes in the case company regarding the business partnering role of business controlling are highly positive. Therefore, the fundamental requirements identified in literature regarding the business management's expectations (Byrne & Pierce 2007; Wolf et al. 2015) and willingness from business controlling (Järvenpää 2007) are present in the company's top management. However, as the interviewees in this research were all from the top management level, it is not possible to conclude from the data whether the expectations of business managers and employees in the lower levels of the company are as positive as they are at the top level. Likewise, it cannot be concluded if the financial managers and employees at the lower levels of the company exhibit the same willingness to pursue the increased business orientation and involvement in business management as the top financial management does.

Nevertheless, the attitude and personal role modelling of the top management has previously been found to greatly influence the accounting and business controlling culture in organisations (Järvenpää 2007). Therefore, when the top management from both financial and business management exhibit high willingness towards the increased business orientation of BC, it is also more likely that managers and employees in the lower levels of the organisation adopt similar views towards it and behave accordingly. The next chapter discusses the success factors that emerged from the interviews related to achieving the business partner role of business controlling.

4.2.6 Success factors for achieving business partnering

Several success factors were identified from the interviews concerning the increased business orientation of business controlling. These are grouped into eight main success factors. The success factors and their explanations are presented in Table 6. The table also

highlights whether the success factor was suggested by financial or business management or both.

Table 6. Success factors to business partnering

Success factor	Explanation	Suggested by
Mindset change	Change the mindset from financial focus to the business	Financial management
Role-selling	Convince business management of the potential added value	Business management Financial management
Relationships & Communication	Ability to cooperate and communicate viewpoints	Business management Financial management
Knowing the business	BC must have an understanding of the operative business	Business management Financial management
Freeing up time from performing routine work	Identify non-value-adding activities and automate, outsource or eliminate them	Financial management
Willingness to provide imperfect information	Willingness to quickly provide information that is not completely accurate for discussion purposes	Financial management
Adapting to managers	BC must adapt to the needs and behaviour of managers	Financial management
Alignment of objectives	Align business controlling's objectives with business management's	Business management

All of the interviewees from financial management considered mindset change to be the most critical success factor in achieving business partnering. The interviewees explained:

The number one thing is mindset ... Are you willing to change, are you willing to look at different ways of doing things, are you willing to explore opportunities. The most important thing is the ability to change and the mindset to do it. – Finance manager (1)

Priority A is to change this mindset from a financial person to a business person, to a partner. This is absolutely priority A. – Finance manager (3)

Most important is the mindset, bandwidth, attitude. We should not see ourselves as just doing the controlling ... We should have our mindset to think in terms of the business. – Finance manager (2)

Furthermore, what was seen as an important success factor by many interviewees from both financial and business management was role-selling. As an interviewee from the financial management stated:

This kind of mentality that they [business management] see us [controllers] as a partner has to be established. And we are not there yet, we are far away from that.
– Finance manager (3)

He further continued that the business management must be convinced that BC is not there to control them but to support them. The business management might think that the purpose of the controllers is simply to control them and therefore they are trying to keep the controllers away from their business. As was noted earlier, Global business manager (2) perceived business controlling to be very invisible at the moment from the perspective of operations. Therefore, he also emphasised:

[Business controlling] function must somehow market itself internally in the organisation and be present. – Global business manager (2)

Regarding the role-selling, Global business manager (1) emphasised the challenge of involving the local business controlling functions in the areas more closely in the day-to-day business of these areas. He highlighted that overcoming this challenge is largely dependent on how well the top management is able to sell the more business-oriented role to the area business leaders.

Interviewees from both financial and business management considered relationships and communication to be an important success factor. According to Global business manager (1), the number one success factor is that managers from business and finance must be able to cooperate and communicate their viewpoints to each other. He further explained that the communication aspect involves the courage and willingness to challenge the business in different matters. In this vein, Finance manager (3) emphasised the importance of establishing trustful relationships with the business management. Finance manager (1) also described the importance of relationships and communication:

[An important] thing is the relationship. You have to be talking to the people in the business that you're trying to control. You have to understand what they are thinking. You have to understand their motivations and what they are trying to accomplish. – Finance manager (1)

Another success factor that interviewees from financial and business management emphasised was for business controlling to have a good understanding of the business in order to be able to add value through increased involvement in the business management. Finance manager (3) argued:

Controllers should have an overview of the whole process chain in the countries, in the company. They should know everything from A to Z. – Finance manager (3)

Similarly, Business unit manager (2) argued that in order to improve the business orientation of BC, the controllers must have an understanding of the company's operations and how the organisation functions. He further emphasised that it is not possible to base analyses solely on numbers. There may be various things behind the numbers that are obvious to the business management but may raise unnecessary concern when observed simply based on the numbers. Therefore, in order to avoid wasting time analysing matters that are self-explanatory to the business management, the controllers must have a deep enough understanding of the business. He also highlighted that the nature of the business is different between the different business units and business controlling must be aware of these differences to be able add value to the business. Finance manager (1) also stressed the importance that business controlling understands the customers and products and the business as a whole:

Having a good understanding of the business, what's going well, what's not going well, what do we sell, what does it do, how does it impact the customer, what generates more profit, what generates less profit. So, understanding the business is critical. – Finance manager (1)

All of the interviewees from financial management highlighted that in order for business controlling to be able to successfully become more involved in the business, it must free up time from performing routine work and activities that do not add value to the business. Finance manager (1) argued that the day-to-day tasks must be automated as much as possible to enable the controllers to spend more time with the management. They must have the time to understand what is currently going on in the company in order for them to be able to support the business in these ongoing matters. Furthermore, he explained the urgency of getting rid of the routine work to allow BC to be involved in the business:

The more we're involved in the business the better it is, that means get rid of things that the business doesn't care about, tax reporting, legal reporting, clerical activities like paying invoices or collecting invoices, things like that you can outsource or you can move to a shared service of some sort, get that off your plate as fast as possible. – Finance manager (1)

Likewise, Finance manager (3) emphasised that the standard and routine work must be removed from business controlling in order to enable them to support the business more than today. He explained that currently the routine work relates mainly to financial controlling and some of the controllers are currently doing just the bookkeeping and reporting for the countries. Therefore, he emphasised the importance of outsourcing the routine work to Financial Services or having the new ERP-system automate it as much as possible. He summarised the whole situation as follows:

As soon as this [routine work] will be then outsourced to Financial Services or might disappear because of the [ERP] implementation and usage ... this would

give us the time to transform the controlling from financial controlling to business controlling. – Finance manager (3)

Another success factor that concerns controllers personally, is the willingness to provide information that is accurate enough in order to facilitate discussion. This role of management accounting in facilitating discussion has been discussed also in the literature (Hall 2010). Finance manager (1) argued that business controlling must be willing to report information that is not completely accurate but represents the best information available at that particular moment. He emphasised that it is better to provide some information for the business management than nothing. He explained this as follows:

They [managers] base a lot of decisions on gut feel. And that same gut feel has to be in business controlling. You have to be able to quickly present some information that may not be 100 % accurate but at least supports or does not support a gut feel decision. So, for discussion purposes it's better to do that than to have everything being 100 % accurate. – Finance manager (1)

Finance manager (1) also highlighted the differences among managers when it comes to the need for support from business controlling. Therefore, he argued that in order for business controlling to succeed in becoming more business-oriented, it has to adapt to the managers. He explained that there are different types of business management in the company, some of them highly independent and strong with the numbers. However, there are also managers who do not want to access information and analyse it by themselves. Therefore, he summarised the success factor as follows:

It depends on the business manager and what their strengths are, what they want out of a business controller. Business controller can play different roles within organisation but also person by person. Depending on what you want to accomplish, what you want to do, and where you see the weaknesses in the organization, business controlling can take on many different aspects. – Finance manager (1)

Furthermore, one interviewee stressed that in order to successfully pursue increased business orientation, the objectives of both business management and business controlling must be aligned. Only by having well-established common goals can both parties cooperate effectively and business controlling achieve the role of a real business partner.

To conclude, there are several success factors related to business controlling's shift towards a business partner. Technology and sophistication of information systems play an important role in enabling the role shift from crunching the numbers to an active participant in the management of the business. What is more, majority of these success factors concerns the people in the organisation and the interaction between these people. This suggests that the success of shifting the role of business controlling to a business partner is ultimately influenced and enacted by the various actors in the organisation.

4.2.7 Challenges and potential risks

On a general level, the interviewees did not identify any significant risks related to increased business orientation. There were, however, some suggestions that were seen to require consideration. These are presented in Figure 7 below, where the potential risks are separated according to whether they affect primarily business or financial management.

Business management	Financial management
<ul style="list-style-type: none"> • Consumes time from managerial work • Management becomes excessively number-oriented 	<ul style="list-style-type: none"> • The demand for support becomes overwhelming • Risk of losing employees

Figure 7. Potential negative consequences to business and financial management from pursuing increased business orientation of BC

Area manager (2) emphasised that pursuing the increasing business orientation of business controlling should not negatively affect the business. Therefore, he argued that the business management should not feel that the increasing involvement of business controlling in managing the business consumes time from them performing their work. He further argued that it should not cause more controlling of the business or excessive amounts of questions targeted to the business management and in this way affect their work. He concluded that if these aspects are taken into account and the role shift is well thought out together with the business management, then there should not be any risks.

Some interviewees highlighted that the increased involvement of BC in business management must not lead to excessive focus on numbers and financial aspects of the business. Business unit manager (3) mentioned the following:

Of course, it should not result in this [business management] becoming solely number-oriented because the business is not only numbers. But I don't see this as a much of a risk because better understanding will be developed on both sides. – Business unit manager (3)

Furthermore, Business unit manager (3) also suggested one risk related to the potentially increasing demand from business management for business controlling's support:

If business controlling is increasingly involved in various matters related to the business, finance is a fixed cost after all, it may quickly result in everyone requesting this and that. – Business unit manager (3)

Therefore, he further argued that because of this, the costs have to be kept under control and the actual needs of the business need to be evaluated and determined to ensure that

the focus of business controlling's support is on actual value-adding activities. Another risk identified by one interviewee concerned the risk of losing employees. Finance manager (3) highlighted that as some of the controllers have been in their positions for several years performing their work in a certain way, the changes to their role in the future may pose challenges, and in the worst case cause the company to lose finance employees.

The small number of potential risks and challenges identified by the interviewees further highlight the positive attitude towards the increased business orientation of business controlling in the case company. However, it is important that these risks are thoroughly considered and given attention to avoid any negative consequences to employees from the side of finance or business. Therefore, potential negative aspects must be avoided to ensure that people from either financial or business management do not develop negative perceptions towards the increasingly business-oriented role of business controlling.

4.2.8 Benefits from increased business orientation

The interviewees were asked about the benefits they expect to be gained from business controlling shifting further towards a business partner. Some of the benefits that surfaced from the interviews were already present in the company. The expected benefits that were identified from the interviews are grouped into five categories and they are presented in Table 7.

Table 7. Identified and expected benefits from business partnering

Benefit	Explanation	Suggested by
Earlier detection of problems	Identifying early warnings and reacting faster	Business management
Enhanced decision-making	Proactive support leads to faster and better decisions	Business management
Better understanding of information needs	Increased involvement with business managers enables BC to better understand their information needs	Business management
Better understanding of numbers and financial consequences of actions	Interaction with BC leads to managers developing better understanding of financial aspects	Business management
BC more integrated to business leading to higher commitment	BC becomes part of the business which leads to increased responsibility and commitment	Business management

Several interviewees highlighted as an important benefit from the increased business orientation of BC the ability to detect problems earlier. This benefit was also identified by Byrne & Pierce (2007) in their study. Global business manager (2) emphasised that the sign of healthy business is that things are not done ad hoc or in the wake of a crisis. Global business manager (1) suggested that closer involvement and participation of BC would enable the identifying of early warnings regarding the markets, competitors, and ongoing projects. Business unit manager (2) also explained this benefit:

We could intervene much earlier in matters that are starting to move in the wrong direction. We could react more quickly and make faster decisions regarding corrective actions. – Business unit manager (2)

Enhanced decision-making was highlighted by several interviewees as an important benefit as well. This has also been suggested in previous empirical research (Byrne & Pierce 2007; Wolf et al. 2015). The interviewees emphasised that the increased business orientation would allow business controlling to aid the business management in making better and faster decisions. Business unit manager (2) explained:

What follows is that business controlling ... is able to help business management to make the right decisions proactively. Not just when asked directly. – Business unit manager (2)

What was identified as a benefit by many interviewees from business management concerned the enhanced mutual understanding regarding financial information. Business unit manager (3) highlighted that the increased business orientation of BC and interaction between financial and business management would enable the parties to learn from one another. Area manager (2) suggested that by being more involved in the business, business controlling would be able to understand better the information needs of the business. This is in line with the findings of Byrne & Pierce (2007) and Wolf et al. (2015) regarding the information impact of BC's increased business orientation.

Furthermore, Area manager (2) suggested that the closer interaction with business controlling would enhance business management's understanding of financial figures and their implications. Area manager (1) also highlighted the financial perspective on decision-making and on the consequences of different actions. According to him, it would be very valuable to have a finance person to correct the business management's thinking and help in guiding them:

We [business management] may sometimes ignore the realities of costs, and sometimes we don't really think about what the financial benefits or financial detractors are from a certain action. This is where we have seen very positive impact from [Finance manager (1)] in the past, he's been able to bring little bit of a reality check to our rosy-eyed thinking and ideas. – Area manager (1)

What is more, Business unit manager (2) and Business unit manager (3) both identified as a benefit that if business controlling becomes more business-oriented, it can establish

itself as more than just a separate entity which focuses on reporting and on producing certain outputs for the business. Business unit manager (2) further elaborated that increased involvement in the business by BC would also mean increased responsibility for the success of the business. Therefore, business controlling could evolve from being just a support function to being part of the business which would also likely lead to deeper commitment.

To conclude, several important benefits from increased business orientation of business controlling were identified from the interviews. Many of these benefits are also in accordance with previous empirical research on the consequences from business partnering to organisations. Based on the discussion above it seems that the business management in the case company is well aware of business controlling's potential to add more value to the business by becoming more business-oriented.

5. DISCUSSION

In this chapter the empirical results of this study are discussed and reflected to the existing literature. The purpose in the following chapters is to provide answers to the research questions of this thesis. Furthermore, the recommendations for the case company are presented in the form of an action plan.

5.1 Characteristics and challenges regarding business controlling

The first research question of this thesis was: “How does the business controlling function of the case company support top management work and decision-making?” In order to answer this a thorough understanding of the business controlling function’s current role in supporting the business had to be established. This involved identifying the characteristics of the business controlling function’s support and related challenges in the different levels, functions and areas of the case company.

The results of this study support the claims made in literature that the business partner role of business controlling is still to this day not as widespread as is believed (Lambert & Sponem 2012). Literature also suggests that business controlling is in many organisations still unable to achieve the level of business partnering that would be desired (Davis & McLaughlin 2009; Suomala et al. 2011). This notion describes fairly well the situation in the case company as well. The empirical results of this study indicate that business controlling’s role in supporting business management and the extent of this support varies in the case company. Based on the results the highest level of management receives comprehensive and active support from business controlling. Similarly, the support for the top management of the three business units was perceived to be on a very good level. Two of these three business units have dedicated business controllers and their role is perceived as exhibiting high business orientation.

While the support for the top management of the two business units is characterised as business-oriented, the top management of the third BU, which does not have its own business controller, receives support mainly in the form of reports and self-service tools. Despite this contrast, the support from business controlling was not perceived to be insufficient for the third BU and there seemed to be no desire for having a dedicated business controller. Therefore, the results seem to be in line with the suggestion made in the literature that business controlling may have to adapt to different managerial expectations and styles when pursuing business partnering (Byrne & Pierce 2007). Furthermore, although much of the literature suggests that business orientation of business controlling is characterised by and results from more active involvement in the management, it is not the only

means to better support the business. In fact, if the involvement of business controlling is simply increased without considering the varying expectations and needs of business management, there is a risk that role conflicts emerge in the organisation (Byrne & Pierce 2007). What is also noteworthy is that the lesser involvement from business controlling for the third business unit has likely enabled the management to become more self-reliant (De Waal et al. 2019).

The varying degrees of business controlling's support and business orientation within a single global organisation has not received much attention in existing literature. In the case company there are clear and significant differences when it comes to the business controlling function in Finland and the functions in the areas and countries. Issues in the centralised business controlling function in Finland mainly concerned the lack of support given to lower level management and operations. Therefore, the need for more involvement and participation from business controlling was emphasised by many interviewees. This points towards the need for increased decentralisation of the business controlling function in order to better support the business (Järvenpää 2007).

When it comes to the local business controlling functions in the areas and countries, several issues were identified in the case company. According to the results, in many countries the business controlling functions are mainly governance entities that focus on legal aspects. Furthermore, these BC functions in the areas and countries focus mainly on financial issues and their role consists of collecting data and providing reports. Therefore, the role of business controlling in the areas and countries is still strongly characterised as being a number cruncher (Byrne & Pierce 2007). The results thus suggest that decentralisation by itself does not necessarily lead to increased business orientation and involvement in the management. Interestingly, some interviewees from business management suggested that although in some aspects the support given by business controlling is lacking, at the same time all of the available support from business controlling is not fully utilised by the business management at the moment. This reveals that improving the supporting role of business controlling does not depend only on the extent of support provided by BC but also on how receptive business management is towards this support (Byrne & Pierce 2007) and how well they are able to take advantage of it. All in all, the current issues related to the role of business controlling highlight the need to develop the business orientation of the centralised BC function and especially the local functions in the areas and countries.

Based on the results of this study it is difficult to evaluate how extensively business controlling is involved in decision-making processes in the case company. As was discussed earlier, the results address the supporting role of business controlling on a more general level. Nevertheless, several notions emerged during the interviews regarding the involvement of business controlling in decision-making which suggests that BC plays a part in many decision situations in the case company. However, conclusions cannot be drawn on the extent of the involvement and whether business controlling is consistently an integral

participant in decision-making processes or mainly an information provider. Saukkonen et al. (2018) emphasise the importance of actor-based approach in decision-making processes for better utilisation of MA information. In order to address such notions in the case company more detailed understanding of the decision-making processes and the actors involved in them would have to be established. However, the lack of detailed results regarding decision-making processes specifically should not be taken as an issue in this study. Literature has suggested that decision-making is often only a small aspect of managerial work (Hall 2010; Jönsson 1998). As the objective of this study was to comprehensively study the role of business controlling in supporting business management in the case company, if a stronger emphasis would have been placed on decision-making processes, other potentially much more important results may not have emerged from the study.

Literature has suggested that the challenges in organisations regarding MA information typically relate to the differing perceptions between providers and users on what constitutes relevant and useful information (Bruns & McKinnon 1993; Pierce & O’Dea 2003; Weißenberger et al. 2012). What is noteworthy is that the results in this study do not suggest that such issues exist in the case company. None of the interviewees found the information provided by business controlling to lack relevance or to not be useful in their work. Therefore, there was no evidence of preparer-user perception gaps as described by Weißenberger et al. (2012). This does not, however, mean that there is not room for improvement. For example, the managers may be so accustomed to the information currently provided to them that they are unable to see the possibilities and potential benefits that new or improved information could bring. By further drilling down to the information provision aspect, the potential shortcomings and new possibilities that did not surface in this study could be identified. Furthermore, increased interaction between business controlling and management should naturally facilitate the convergence of their perceptions regarding the usefulness and relevance of MA information and thus result in improved information (Pierce & O’Dea 2003).

Based on the results there are some issues related to information provision and reporting in the case company. The issue that received the most attention in the interviews concerned the frequency of reporting where the current monthly basis was deemed insufficient. As literature also suggests, one of the characteristics of good MA information is timeliness (Weißenberger & Angelkort 2011). Furthermore, the large amount of manual reporting and manual transactions performed in the case company are also a significant issue at the moment. This causes high risk for error in reporting, and the results suggest that when it comes to the local business controlling functions, their reports often contain errors. These issues indicate that such aspects identified in the literature as the sophistication of information systems (Järvenpää 2007; Lawson 2016) and the extent of outsourcing and shared services (De Waal et al. 2019) require attention in the case company in order to give business controlling the ability to become more business-oriented.

The results also indicate several issues related to the current systems and tools in the case company. The challenges concerned mainly the lack of self-service functionalities and the lack of simplicity and integration when it comes to the information systems. Many interviewees stressed the issue of being unable to get a detailed view of the causes behind financial figures in Cognos. Furthermore, the lack of real-time information on the business is a major challenge in the case company. Additionally, it was suggested that information is difficult to retrieve from Cognos due to it being spread around the system. All of these issues suggest that although the self-service aspect has increased in the case company and in many ways business management is able to be self-reliant, there are still many issues related to the tools and functionalities that prevent business management from being more independent when it comes to reporting and analyses. Literature suggests that in order to free up time for business controlling to perform value-adding activities it is important to implement self-service tools and reduce the number of fixed-reports provided to the management (De Waal et al. 2019). Therefore, these issues require attention in the case company to establish the conditions for BC to pursue business orientation.

Furthermore, the results of this study provide insight on the requirements and expectations in the case company regarding the self-service aspect of reporting. The suggestion in literature is that the direction that business controlling should pursue is to reduce the number of fixed-reports and enable business management to be more independent by implementing better and easier to use tools (De Waal et al. 2019). The results mainly support this claim and the case company has been moving in this direction as well. There were, however, some aspects that require attention which the literature does not seem to address. The results suggest that although the self-service aspect needs to be increased, the need for standardised and uniform basic reports remains. Furthermore, when the self-service aspect is developed and increased, it must be ensured that the tools are easy to use and that managers have the skills and knowledge to use them. As literature notes, the accounting knowledge and information usage skills may vary significantly among managers (Butler & Ghosh 2015; Cardinaels 2008). Therefore, these notions are highly important in order to avoid, for instance, situations where business managers perform analyses but come up with wrong results which may ultimately lead to wrong decisions.

When it comes to the more general challenges related to systems and tools, the lack of a globally integrated ERP-system was perceived as the biggest issue in the case company. This has also been identified in the literature as a common problem in organisations (Lawson 2016). Because there are various ERP-systems in the case company globally, retrieving data from the different systems is complicated at the moment. Furthermore, the lack of integrated system across the organisation causes errors in the figures reported by local business controlling functions in countries. Therefore, “ERP-fatigue” caused by multiple ERP-systems as described by Lawson (2016) is evident in the case company. As has been identified in the literature, the resulting manual workarounds cause additional non-value-adding work for business controlling in the case company (Lawson 2016). However, these

issues should be eliminated when the new ERP-system is eventually implemented in the case company. Overall, the implementation of integrated and more sophisticated information systems has been identified in literature as an important enabler for business controlling to have the time to pursue a more business-oriented role in organisations (De Waal et al. 2019; Järvenpää 2007; Lawson 2016).

5.2 Improving the support and developing business orientation

The second research question of the thesis was: “How can the business controlling function become more business-oriented and support top management work and decision-making more effectively?” The empirical results suggest several improvement needs in the case company regarding people and roles, processes, information and reporting, systems and tools, and accounting and calculations. These improvement areas are presented in Figure 8. The figure also illustrates the implications of the improvements on developing business controlling’s business-oriented role by utilising the framework that was presented in the theory synthesis in chapter 2.5. The darker the colour of the area (e.g. organisational willingness or ability) the more the improvement suggestions impact the respective area.

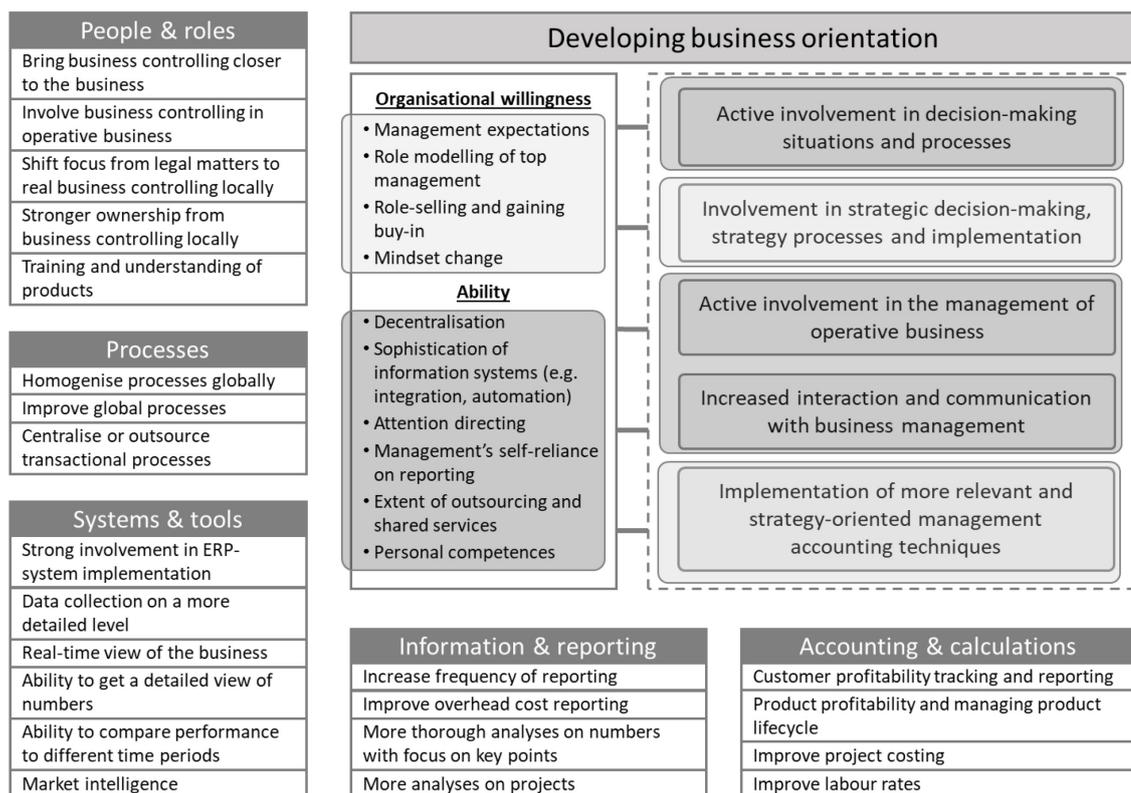


Figure 8. The improvement needs in the case company and their implications on developing the business orientation of business controlling

According to the literature, greater involvement from business controlling in business management is generally desired in organisations (Byrne & Pierce 2007; Pierce & O’Dea 2003). This is also the case when it comes to the case company. The improvement area

that was deemed the most important overall was to bring business controlling closer to the business. The results suggest that there is a need to transfer the same operating model that is currently established in the centralised business controlling function, where the highest-level management from financial and business side work together as partners, to other levels of the organisation globally. Top level executives' role modelling has been identified in the literature as having a great influence on the willingness across the organisation to pursue the more business-oriented role of BC (Järvenpää 2007). There is also a need to involve BC more in operative business by dedicating controllers to management teams possibly with certain timeslots. This can be seen as a form of decentralisation (Järvenpää 2007) which would enhance the ability of BC to interact more with the business and to engage in more business-oriented activities.

The other improvement requirements in the case company concerned the lack of business orientation when it comes to local BC functions. The local business controlling functions need to shift the focus from legal matters to activities that add value to the business. Furthermore, it was emphasised that the local BC functions need to assume stronger ownership of different business-related matters. The results thus support the notion made by Järvenpää (2007) that the attention of business controlling must be directed to activities and behaviour that enables business orientation. What is more, the literature has also identified the importance of personal competences and training when it comes to the ability to become business-oriented (De Waal et al. 2019; Järvenpää 2007). The results of this study support this notion as the need for more training for controllers especially on the case company's products was highlighted in the interviews.

Based on the results there also process improvements required in the case company. Currently financial and business processes vary significantly across the organisation globally. Therefore, it was suggested that these processes need to be comprehensively evaluated, streamlined and homogenised to improve efficiency. In order to be able to do this the processes need to be defined and documented as suggested by Lawson (2016). The new ERP-system implementation provides an excellent opportunity to perform these process-related improvements. Furthermore, the results suggest that an important way to improve efficiency is to strengthen the financial services aspect in the case company and centralise transactional processes into service centers. This would also impact business controlling's ability to become business-oriented by freeing up its time from performing transactional routine work and enable it to engage in more business-oriented activities (De Waal et al. 2019).

As was mentioned in the previous chapter, many of the challenges in the case company involved the current information systems and tools. Therefore, many of the improvement requirements that the results suggest are also directly related to those. Based on the results it is highly important for business controlling to be strongly involved in the currently ongoing ERP-system implementation. This ERP-system implementation is also directly linked to many of the other improvement areas that concern the shortcomings and lack of functionalities in the systems and tools. The ability to have real-time information on the business and the ability to get a more detailed view of numbers and the causes behind

them received high priority from the interviewees. However, the ability to get a more detailed view of numbers can only be achieved if data is collected on a more detailed level than it is today in the case company. Furthermore, the ability to compare performance to various time periods was suggested. These aspects are directly linked to the sophistication of information systems and to management's self-reliance when it comes to reporting and analyses. Therefore, as the literature suggests, achieving these improvements would enhance business controlling's ability to become more business-oriented (De Waal et al. 2019; Järvenpää 2007). All in all, the number of issues and improvement needs related to the systems and tools in the case company suggest that the ability of business controlling to shift towards increased business orientation is greatly hindered by the current information systems and tools. Therefore, in order to establish the necessary conditions that enable BC to engage in the activities discussed earlier and adopt the desired business-oriented role, great attention must be given in the case company to developing the systems and tools.

In terms of information and reporting, the need for more timely information emerged as the most important development area in the case company. However, as was already discussed, the development and implementation of more sophisticated information systems and tools will likely provide the means to satisfy this requirement. As the suggested direction for business controlling is to increase the self-service aspect of reporting (De Waal et al. 2019), it can be argued that an attempt to simply increase the frequency of reporting would not support BC in becoming more business-oriented. Instead, this approach would likely hinder BC's development towards the new role as more frequent reporting would consume more time and resources from business controlling. Furthermore, based on the results it is highly important to improve overhead cost reporting in the case company. With the current reports business management is unable to inspect overhead costs in more detail which results in managers approving costs without knowing whether they are correct. The results also suggest that BC could better support business management by performing more analyses on the financials that are reported to the business. Interviewees suggested that the main points, themes and deviations in reports and numbers should be identified and elaborated on more by the controllers. This supports the notion made in literature that managers desire simplified information that is structured around key issues and provides them with a common-sense story of organisational performance (Hall 2010).

When it comes to accounting and calculations, customer profitability tracking and reporting was seen as the most important development area. This would enable the identifying of customers that provide good profitability and based on this knowledge customer focus could be directed accordingly. These notions are in line with the literature concerning customer accounting (Guilding & McManus 2002). Another aspect of accounting that is important based on the results is to improve product profitability analysis and tracking. Furthermore, at the moment the management of products' lifecycles is nearly non-existent in the case company and efforts should be made to improve the situation. Literature suggests that the implementation of new more relevant and strategy-oriented management

accounting techniques enhances the business orientation of business controlling and enables it to better support the business (Järvenpää 2007). Therefore, in addition to the improvements identified from the interviews, the case company should evaluate the viability of implementing other strategic management accounting techniques presented earlier in Table 1. The techniques that are not yet in use in the case company should then be implemented if they are expected to add value to the business. Other improvement requirements concerned project costing especially in North America, and the need to improve labour rates by implementing rates that are more flexible and thus enable the case company to be more competitive when it comes to pricing services.

The results suggest several important success factors when it comes to developing the business orientation of business controlling. These include mindset change, role-selling, relationships and communication, knowing the business, freeing up time from performing routine work, willingness to provide imperfect information, adapting to managers, and the alignment of objectives. Majority of these success factors have also been recognised in the literature. Supporting the notion suggested by Lawson (2016), the financial management in the case company stressed the importance of changing the mindset of the controllers from financials to more focus on the business. The requirement to sell the new role of business controlling to the management also emerged during the interviews as an important way of ensuring positive reception and buy-in from the side of business management (Byrne & Pierce 2007; Lawson 2016). Järvenpää (2007) suggests that one of the key factors in business controlling's ability to become business-oriented is for it to have a good overall knowledge and understanding of the business. The results support this success factor as it was perceived as a critical requirement in the case company as well.

What was also suggested by several interviewees was the need to free up business controlling's time from performing routine work. This supports existing literature which identifies many aspects for enabling this such as more sophisticated information (e.g. ERP-system) and accounting systems (Järvenpää 2007), reducing fixed-reports and increasing management's self-reliance on reporting (De Waal et al. 2019), integrated information systems (De Waal et al. 2019; Lawson 2016), and outsourcing of routine activities or delivering them through shared services (De Waal et al. 2019). The importance of every one of these aspects was identified by the interviewees in this study as well. Furthermore, the results support the notion recognised by Byrne & Pierce (2007) that business controlling needs to adapt to different managerial styles and expectations when pursuing business orientation.

A success factor identified in this study that the literature has not previously suggested in the context of business orientation is the controllers' willingness to provide imperfect information to the management. However, this has been identified in different context by Hall (2010) who has suggested that when it comes to managers using MA information to develop knowledge of their environment or in communicating with each other, the accuracy and completeness of the information is secondary in importance. Another important success factor identified in this study that has not been recognised in the literature concerns the need to align the objectives of business controlling and business management

in order to successfully pursue the business orientation of BC. Cooperation between business controlling and business management is unlikely to be successful if each side is focused on different goals.

The results also provide insight on the potential risks related to increasing the business orientation of business controlling that should be taken into account. Literature mainly identifies risks in the form of potential role conflicts in organisations (Byrne & Pierce 2007). The results of this study contribute to existing literature by suggesting that when it comes to potential risks affecting business management, it should be ensured that developing the business orientation of BC does not consume time from managerial work. Furthermore, increased involvement of business controlling should not result in the company's management becoming excessively number-oriented. In turn, in terms of risks affecting the financial management, the demand for support from managers may become overwhelming as BC gets more involved in the business. Therefore, it must be ensured that the actual value-adding activities are identified and the controllers' resources are directed to those activities. What is more, when attempts to shift the role of business controlling towards business orientation are made in organisations, there is a risk of losing finance employees. Ways to minimise this risk are to pursue the role shift transparently and by communicating the expectations towards controllers clearly. Furthermore, by providing training on the business and personal skills it can be ensured that controllers possess the capabilities to become business partners and are also confident about pursuing the new role themselves.

The existing literature does not provide much empirical evidence regarding the consequences and benefits from increased business orientation. This study addresses this research gap by identifying the expected benefits in the case company. The results suggest several benefits to result from the increased business orientation of business controlling. These include earlier detection of problems, enhanced decision-making, better understanding of information needs, better understanding of numbers and financial consequences of actions, and business controlling becoming more integrated to business leading to higher commitment. The results support the suggestions made in literature that increased business orientation of business controlling positively influences organisational performance through earlier detection of problems (Byrne & Pierce 2007) and enhanced decision-making (Byrne & Pierce 2007; Wolf et al. 2015).

Furthermore, the results suggest that the increased interaction with business management that follows from BC adopting a more business-oriented role enables controllers to develop a better understanding of the information needs of managers. This results in enhanced quality and relevance of information as also suggested in literature by Byrne & Pierce (2007) and Wolf et al. (2015). Therefore, this study provides support to the claim regarding the business orientation of BC as having an impact on information (Byrne & Pierce 2007). Furthermore, when it comes business management gaining a better understanding of financial aspects and consequences, similar notions have been suggested in the existing literature as well (Byrne & Pierce 2007; Wolf et al. 2015).

One expected benefit identified in this study that has not been identified in the literature concerns the increased commitment of business controlling. The results suggest that as the business orientation increases and business controlling becomes more involved and integrated in the business, the commitment of BC towards the business performance may increase as well. Therefore, the results of this study not only support many of the benefits identified in the literature but also add to them. However, it should be noted that the consequences and benefits from increased business orientation of BC suggested in this study emerged from the expectations of the interviewees. Thus, it cannot be said with certainty that the benefits identified in this study are necessarily achieved after optimal business partnering of BC is achieved in the organisation. Similar to this study, the existing empirical research on this area mainly relies on interview or survey data. Therefore, more rigorous research on the actual consequences and benefits to organisations resulting from BC adopting a business-oriented role is still needed.

5.3 Recommended action plan for the case company

Action plan for the case company to improve the support from business controlling to business management and for it to become more business-oriented is presented in Table 8. The action plan is developed based on the literature and the empirical analysis. Therefore, it is essentially a synthesis of the empirical results and the above discussion where the results were discussed in the light of existing research. The actions in the categories that are presented in bold are the most important ones based on the results and should thus be prioritised in the case company.

The first part of the action plan consists largely of actions that provide necessary or important initial conditions for business controlling to be able to pursue a more business-oriented role. The second part in turn focuses on actions that develop the role of business controlling towards the role of a business partner as well as on the actual business-oriented activities. However, although the actions in the first part provide the initial conditions for business partnering to happen, they still require continuous attention also further along the line. Furthermore, many of the actions in the second part of the action plan can and should be started immediately even though the conditions enabling business orientation are not yet optimal.

Table 8. Action plan for the case company

Focus	Actions
Developing the conditions for business partnering	<p>Build mind-set and competences</p> <ul style="list-style-type: none"> • Develop mindset of controllers from finance to business focus. Establish an understanding of the business-oriented role that controllers are expected to pursue in the future. Here the role modelling of top management is essential. • Provide controllers with comprehensive training on the business and products to develop deeper business understanding. <p>Sell the new role and gain buy-in from business management</p> <ul style="list-style-type: none"> • Communicate the potential and expected benefits to managerial work and organisational performance from business orientation. It is crucial to convince business management of the benefits in order to gain buy-in for BC's business-oriented role. • Establish an understanding of what business orientation means. It is important for the business management to understand that the purpose is to support them and not to control them. <p>Develop systems and tools</p> <ul style="list-style-type: none"> • Strong involvement in the ERP-system implementation is crucial. Firstly, ensure that all of the currently lacking self-service functionalities that can be implemented are implemented in the new ERP-system. Secondly, ensure that the functionalities available today are not lost when the ERP-system is implemented. • Establish standardised ways of collecting data on a highly detailed level to be implemented along with the new ERP-system. • Provide controllers access to market intelligence tools. <p>Enable business management to become more self-reliant</p> <ul style="list-style-type: none"> • Provide training on the systems and tools to ensure that business management is aware of all the available functionalities and has the knowledge and skills to use them effectively. • Provide business management with required self-service functionalities. The more integrated the functionalities are into a single system such as the ERP-system the better. Required functionalities include: <ul style="list-style-type: none"> • Access to real-time business information. • Access to information on a detailed level and to the causes behind financial figures. • Ability to compare performance to different time periods. • Evaluate and implement other self-service functionalities or tools to further develop the self-service capabilities of managers. • Identify the reporting needs that should remain as fixed-reports. Gradually reduce unnecessary fixed-reports as the self-service capabilities of managers increase. <p>Improve processes and free up time from routine work</p> <ul style="list-style-type: none"> • Define and document processes. Identify the processes and activities that add no value to the business and automate, outsource or centralise them into shared services. • Streamline processes to improve efficiency. • Homogenise processes globally.

Business-oriented activities	<p>Bring business controlling closer to business</p> <ul style="list-style-type: none"> • Involve business controlling in operative business. Establish cross-functional teams and define which controllers are the contact persons for which teams. Possibly define certain timeslots for participating in the team meetings. • Shift the focus of local BC functions from governance and legal matters towards business orientation. • Involve business controlling in decision-making processes. • Involve business controlling in strategy formulation and implementation. • Drive for stronger local ownership of business controlling on matters such as development initiatives. • Ensure that business controlling's objectives are aligned with those of the business management. <p>Deliver insight into the business</p> <ul style="list-style-type: none"> • Improve overhead cost reporting. Provide the means for business management to inspect overhead costs in detail to enable a better understanding on what they constitute of. • Provide more analyses on reported numbers to the management. The objective is to provide information that is structured around key themes and issues. • More analyses on projects. Compare and analyse large numbers of projects to develop better understanding of the differences and deviations between them. <p>Develop accounting techniques and calculations</p> <ul style="list-style-type: none"> • Implement customer profitability analysis and tracking. • Implement better product profitability tracking. Start developing and implementing product lifecycle management. • Evaluate the potential of other strategic management accounting techniques presented in Table 1. Start implementing techniques that are not yet implemented and are expected to add value. • Implement improved and flexible labour rates. • Improve project costing especially in North America.
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As can be seen, the nature of the actions varies significantly. Some of them are easily attainable and can be considered as “quick-wins”. For example, the self-service functionality for comparing performance to different time periods may already be available but management may simply be unaware of this or lack the needed technical skills. On the other hand, many of the actions are more time consuming and require significant effort over longer periods of time. For instance, the business-oriented mindset of controllers across the organisation may not be easily developed. Similarly, gaining buy-in from business management in different countries may take some time depending on the attitudes.

It should be acknowledged that the action plan and its steps do not represent a plan that when followed necessarily guarantees success for the case company. For instance, new requirements or challenges may emerge along the development process that could not be seen beforehand. However, as the action plan is the result of an in-depth analysis of the existing theories and the empirical results of this study, it provides a comprehensive and well-justified basis for the case company for developing role of business controlling in supporting the business. Furthermore, it comprehensively presents the various actions that should be taken for business controlling to pursue the role of a business partner

6. CONCLUSIONS

This chapter concludes the results of this thesis and presents its contributions. First, the main findings are discussed and meeting the objectives is evaluated. Second, the theoretical contribution of this thesis is discussed. Third, the managerial implications are summarised. Finally, the limitations of this research are discussed and suggestions are given for future research.

6.1 Main findings and meeting the objectives

The purpose of this thesis was to explore the business controlling function's role in supporting the business in the case company. The main objective was to *analyse the maturity of the business controlling function of a global technology company in order to identify how it can purposefully support top management work and decision-making and become more business-oriented*. This objective was formulated into two research questions which this study aimed to answer.

The first research question "*How does the business controlling function of the case company support top management work and decision-making?*" was answered comprehensively with the current state analysis of the business controlling function. Based on the analysis the role of business controlling in supporting the business management varies significantly in the case company. On the highest management level and when it comes to the business units the role of business controlling already exhibits relatively high degree of business orientation. The shortcomings and issues in the centralised BC function mainly concern the lack of support in the lower levels of the organisation and in operations. Furthermore, the support is significantly lacking in the local business controlling functions in areas and countries where the focus is still mainly on financial, legal and governance aspects. Therefore, the issues concerning the role of business controlling indicate that greater involvement and business orientation of business controlling is required in the case company.

Other issues in the case company concerned primarily information provision and current information systems and tools. In terms of information provision, the main issues included the frequency of reporting, errors in reporting in areas and countries, and problems related to manual reporting and to the large number of manual transactions. When it comes to information systems and tools, many of the issues concerned the self-service systems or their lacking functionalities such as the lack of a detailed view to the causes behind financial figures, lack of real-time information on the business, and information being spread all over the system. More general issues related to information systems were the lack of a globally integrated ERP-system, the number of different systems in use and

the resulting high risk for error as well as the difficulty of retrieving data from the various systems. Therefore, while there is a need for developing the role of business controlling towards a business partner, the various issues related to especially the information systems and tools in the case company are hindering this development and causing the resources of business controlling to be consumed by non-value-adding work.

Regarding the second research question *“How can the business controlling function become more business-oriented and support top management work and decision-making more effectively?”* a significant number of improvement needs stemming from the issues in the case company or otherwise were found in this study. These improvement requirements could be categorised into people and roles, processes, information and reporting, systems and tools, and accounting and calculations. Important ways for business controlling to better support the business found in the study include bringing business controlling closer to the business overall and involving business controlling in operative business. Furthermore, focus needs to be shifted from governance and legal matters towards the business, and stronger ownership on business-related matters needs to be assumed especially in local business controlling functions. However, all of this also requires that business controlling has the necessary business understanding through relevant training.

Several other areas need to be improved in the case company as well to enable business controlling to adopt an increasingly business-oriented role. Many of the improvement needs found in this study relate to developing the information systems and tools as they currently pose various challenges to business controlling and management. Improvement needs such as the ability to have real-time information of the business, to get a detailed view of numbers, and to compare performance to different time periods indicate the lack of self-service functionalities necessary to enable business management to be more independent in terms of information in the case company. The information provision aspect also needs improving, for instance, overhead cost reporting needs to be improved, projects should be analysed more comprehensively, and reports should be structured around key themes and issues. These improvement areas are also largely tied to the information systems and tools and can be at least partly addressed through the development of more sophisticated systems and tools.

This study also found that strong involvement of business controlling in the implementation of the new ERP-system is crucial. This new globally integrated information systems has the potential to solve many of the current issues in the case company, and it is essential to ensure that as many of the currently lacking functionalities as possible are implemented in the new system. Furthermore, the various global processes need improving and homogenising in the case company to improve efficiency. In addition, transactional processes need to be evaluated and outsourced or centralised into shared services to free up time for business controlling to engage in value-adding activities. When it comes to improving the business orientation of business controlling in the form of more relevant management accounting techniques, this study found that the implementation of customer

profitability analysis and tracking is highly required in the case company. Additionally, better product profitability tracking is needed and the currently non-existent product lifecycle management needs to be developed and implemented. Furthermore, other potential strategy-oriented management accounting techniques should be evaluated and implemented in the case company.

When it comes to business controlling pursuing a more business-oriented role, several success factors were identified in this study. For instance, the mindset of controllers needs to be changed and their new role sold to the business management to gain buy-in for developing the role of business controlling. Relationships and communication also play a significant role in the successful cooperation between BC and business management. Furthermore, it is necessary for controllers to understand the operative business well to be able to add value to the business. However, in order to enable business controlling to engage in business-oriented activities, it is crucial that their time is freed from performing routine work that could be automated or outsourced. Moreover, business controlling needs to be willing to provide imperfect information, adapt to different managerial needs and styles, and its objectives must be aligned with those of the business management.

Some risks related to developing the role of business controlling in organisations were also identified in this study. It should be ensured that increased involvement of business controlling in the business does not consume time from managerial work and that management does not become excessively number-oriented. Furthermore, there is a risk that the demand for business controlling's support becomes overwhelming or employees are lost when the role of business controlling is changed. This study was also able to identify significant expected benefits from developing the role of business controlling. The main benefits identified in this study were the earlier detection of problems, enhanced decision-making, and enhanced understanding of the information needs of managers. Other benefits included better understanding of numbers and financial consequences of actions, and business controlling becoming more integrated to business leading to higher commitment. Based on the results of this study a comprehensive action plan was developed and proposed to the case company for improving the support from business controlling and developing its role towards a business partner. Overall, this thesis succeeded in achieving its objectives and provided comprehensive and satisfying answers to the research questions.

6.2 Theoretical contribution

This thesis contributes to academic knowledge by exploring the role of business controlling in supporting business management and its development towards a business partner. While the focus of this thesis was on exploring the research topic in a specific organisational context, the thesis provides theoretical contributions that are also applicable outside this research context. An important contribution of this study is the framework developed

based on existing research on the topic. It provides a comprehensive picture of the development of business controlling to an increasingly business-oriented role by incorporating the necessary conditions, business-oriented activities, and resulting consequences into a single framework. Literature has previously focused mainly on more specific and narrow aspects of this role development and consequently a comprehensive framework has been lacking in this area.

The role change of business controlling in organisations has been researched extensively in the literature and studies have provided evidence that the role of business controlling has indeed been developing over the years towards increased business orientation (e.g. Burns & Baldvinsdottir 2005; De Loo et al. 2011; Goretzki et al. 2013). However, how this role change actually happens in organisations and how it should be pursued has not received as much attention in literature apart from few studies (e.g. De Waal et al. 2019; Järvenpää 2007; Lawson 2016). This thesis addresses this research gap and contributes to the literature by confirming previously identified factors that enable and facilitate the business orientation of business controlling and by also suggesting some new ones. By extending on the definition of business orientation given by Järvenpää (2007), this study shows that organisational willingness and ability constitute the necessary conditions that enable the role change of business controlling in organisations. This thesis provides an understanding of the various factors that these conditions encompass as well as of the activities that enhance the business orientation of business controlling. While this study focuses on a single organisation, it is likely that many of the findings can be applied and leveraged in other organisational contexts as well.

Furthermore, this study contributes to the research regarding the expected benefits from business controlling adopting a more business-oriented role. Although literature identifies significant expected benefits (Byrne & Pierce 2007; Wolf et al. 2015) the empirical research in this area has been rather scarce. This thesis reinforces benefits identified in the literature and also contributes to the academic knowledge by identifying some that the previous research has not addressed. Wolf et al. (2015) has stated that there does not exist a clear picture on business partnering behaviour's effectiveness on organisational performance. This study takes this research gap into consideration and suggests that greater business orientation of business controlling positively influences organisational performance. The thesis also supports previous literature by suggesting that increased business orientation has a positive impact on information (Byrne & Pierce 2007; Wolf et al. 2015). Moreover, this study complements existing research by identifying as a benefit that increased business orientation likely leads to higher commitment of business controlling towards the business performance. This study also contributes to the existing literature by identifying risks related to developing the role of business controlling that have not been identified in previous studies.

6.3 Managerial implications

The main focus of this thesis was on researching the role of business controlling in the context of the case company. The action plan that was developed in the study for the case company was presented in Table 8. This thesis also provides some managerial implications for organisations wanting to develop the role of business controlling in supporting the business. The main managerial implications are presented below:

- **Fundamental conditions for business controlling to shift towards a business-oriented role concern organisational willingness and ability.** As long as one or the other is lacking it is unlikely that true business partnering can be achieved in organisations.
- **There are several success factors related to achieving business partnering.** These include mindset change, role-selling, relationships and communication, knowing the business, freeing up time from performing routine work, willingness to provide imperfect information, adapting to managers, and alignment of objectives.
- **Shifting the role towards a business partner involves some risks that need to be avoided.** These relate to time being consumed from managerial work, management becoming excessively number-oriented, demand for support becoming overwhelming, and risk of losing employees.
- **Developing the business orientation of business controlling has the potential to provide significant benefits to organisations.** These include earlier detection of problems, enhanced decision-making, better understanding of information needs, better understanding of numbers and financial consequences of actions, and business controlling becoming more integrated to business leading to higher commitment.

This thesis clarifies the requirements that have to be established in organisations in order to enable business controlling to become a business partner. Depending on the organisational context, the barriers preventing the role shift may result primarily from the lack of organisational willingness or from the lack of business controlling's ability to pursue the business-oriented role. By identifying the aspects that hinder the role development in their specific organisational contexts, managers are able to focus the improvement efforts in their organisations accordingly. If business controlling is able to become more involved in the business and increasingly engage in value-adding activities managers can expect significant benefits to be gained in terms of organisational performance. Overall, this thesis contributes to the understanding of the big picture as well as of the more detailed implications and factors that influence the role development of business controlling towards a business partner.

6.4 Evaluating the research

In order to establish the credibility of the research it is necessary to evaluate and acknowledge the limitations concerning its reliability and validity. Reliability refers to whether the research is repeatable in the way that it would produce the same results and findings if performed by a different researcher at a different time (Saunders et al. 2009, p. 156). In short, the objective of reliability is to minimise potential errors or biases regarding the research (Yin 2003, p. 37). When it comes to ensuring the reliability of a study it is of high importance that the procedures followed in the research are thoroughly documented (Yin 2003, p. 38). Therefore, in order to improve the reliability of this study, the used research methods are thoroughly justified and the research process is explained in detail in chapter 3.

An important way to improve reliability especially in single case studies is the use of existing theory (Yin 2003, p. 34). In this thesis a comprehensive theoretical background was developed which first of all enabled the researcher to develop an in-depth understanding of the research area and thus design the research in a way that ensured valuable empirical results, and secondly the researcher was able to comprehensively evaluate and reflect the results to existing theories and draw conclusions accordingly.

This research was done as a single case study, which poses limitations to validity when it comes to generalisability of the results (Saunders et al. 2009, p. 158). As the research was conducted within one organisation it needs to be acknowledged that large part of the results and findings are likely to be applicable only to the case company. However, in order to minimise this limitation, the researcher attempted to develop an in-depth understanding of the research context in the case company to be able to identify which of the findings concern the case company specifically and which of them are more general across organisations. This was pursued through detailed analysis of the research data and comprehensive reflection of the results to the findings in existing literature.

The empirical data was collected through interviews which presents some limitations to the validity as well. The nature of interviews is such that it prevents the data collection from being completely objective as the subjective views of the researcher inherently affect the collection of data. Furthermore, because the answers given by the interviewees are subject to their subjective views, it is possible that some of the answers are incorrect or do not provide a completely truthful depiction of the case company. Another limitation to the validity that needs to be recognised concerns the sampling of the interviewees. The interviewees were selected in a way that would provide a broad view to the case company globally from the viewpoints of both business management and financial management. However, the sample size of the interviewees was relatively small because of the restrictions posed by the scope of the thesis. Furthermore, as the interviewees represent only

the top management of the case company, the results and findings that concern the employees in the lower levels of the organisation are also based on the views and opinions of the top management.

6.5 Suggestions for future research

Some suggestions on the directions for future research could be identified based on this research and the existing literature. There is much research done on the factors that enable and facilitate the role shift of business controlling towards a business-oriented role. This study reinforces many of these suggestions and identifies some new ones. However, there is still a lack of a comprehensive understanding of all the different factors and how they influence the business orientation of business controlling. Therefore, there is need for further research on this area in order to establish an understanding or possibly a more comprehensive framework for organisations to use when pursuing the role shift of business controlling to a business partner.

This study explored the business controlling function in a global company and identified significant differences within the case company. There is not much research on the varying roles of business controlling within a single global organisation. Therefore, future research should study the causes behind these differences. This would further enhance the understanding of the various aspects influencing the roles of controllers in global organisations.

Furthermore, the empirical research on the consequences and benefits from business controlling being a business partner is still rather scarce. The results of this study support some of the benefits identified in existing literature and suggest some new ones as well. However, similar to the existing empirical research the results of this thesis are based on interviews. Therefore, it would be beneficial to study the benefits from increased business orientation in more detail using different data collection techniques and also across longer periods of time. Empirical evidence verifying the actual benefits from business partnering behaviour in organisations is highly required in the future.

REFERENCES

- Ahrens, T. & Chapman, C.S. (2007). Management accounting as practice. *Accounting, Organizations and Society*, Vol. 32(1), pp. 1-27.
- Baines, A. & Langfield-Smith, K. (2003). Antecedents to management accounting change: a structural equation approach. *Accounting, Organizations and Society*, Vol. 28(7), pp. 675-698.
- Bhimani, A., Horngren, C.T., Datar, S.M. & Rajan, M.V. (2015). *Management and cost accounting*. 6th edn. Pearson, Harlow.
- Bhimani, A. & Langfield-Smith, K. (2007). Structure, formality and the importance of financial and non-financial information in strategy development and implementation. *Management Accounting Research*, Vol. 18(1), pp. 3-31.
- Bruns, W.J.J. & McKinnon, S.M. (1993). Information and managers: A field study. *Journal of Management Accounting Research*, Vol. 5, pp. 84-98.
- Burchell, S., Clubb, C., Hopwood, A., Hughes, J. & Nahapiet, J. (1980). The roles of accounting in organizations and society. *Accounting, Organizations and Society*, Vol. 5(1), pp. 5-27.
- Burns, J. & Baldvinsdottir, G. (2005). An institutional perspective of accountants' new roles - the interplay of contradictions and praxis. *European Accounting Review*, Vol. 14(4), pp. 725-757.
- Burns, J. & Scapens, R.W. (2000). Conceptualizing management accounting change: an institutional framework. *Management Accounting Research*, Vol. 11(1), pp. 3-25.
- Butler, S.A. & Ghosh, D. (2015). Individual differences in managerial accounting judgments and decision making. *The British Accounting Review*, Vol. 47(1), pp. 33-45.
- Byrne, S. & Pierce, B. (2007). Towards a More Comprehensive Understanding of the Roles of Management Accountants. *European Accounting Review*, Vol. 16(3), pp. 469-498.
- Cadez, S. & Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. *Accounting, Organizations and Society*, Vol. 33(7-8), pp. 836-863.

Cardinaels, E. (2008). The interplay between cost accounting knowledge and presentation formats in cost-based decision-making. *Accounting, Organizations and Society*, Vol. 33(6), pp. 582-602.

Certo S. T., Connelly, B. L., Tihanyi, L. (2008). Managers and their not-so rational decisions. *Business Horizons*, Vol. 51, pp. 113-119.

Cescon, F., Costantini, A. & Grasseti, L. (2018). Strategic choices and strategic management accounting in large manufacturing firms. *Journal of Management and Governance*, pp. 1-32.

Chapman, C.S. (1997). Reflections on a contingent view of accounting. *Accounting, Organizations and Society*, Vol. 22(2), pp. 189-205.

Chenhall, R.H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, Vol. 28(2), pp. 127-168.

Chenhall, R.H. & Moers, F. (2015). The role of innovation in the evolution of management accounting and its integration into management control. *Accounting, Organizations and Society*, Vol. 47, pp. 1-13.

Chong, V.K. (1996). Management accounting systems, task uncertainty and managerial performance: A research note. *Accounting, Organizations and Society*, Vol. 21(5), pp. 415-421.

Cuganesan, S., Dunford, R. & Palmer, I. (2012). Strategic management accounting and strategy practices within a public sector agency. *Management Accounting Research*, Vol. 23(4), pp. 245-260.

Davis, T.R.V. & McLaughlin, L.P. (2009). Is finance a business partner yet? *Strategic Finance*, Vol. 90(9), pp. 35-40.

De Loo, I., Verstegen, B. & Swagerman, D. (2011). Understanding the roles of management accountants. *European Business Review*, Vol. 23(3), pp. 287-313.

De Waal, A., Bilstra, E. & De Roeck, P. (2019). Identifying the characteristics of a high-performance finance function. *Journal of Advances in Management Research*, pp. 1-26.

Fauré, B., Brummans, B.H., Giroux, H. & Taylor, J.R. (2010). The calculation of business, or the business of calculation? Accounting as organizing through everyday communication. *Human Relations*, Vol. 63(8), pp. 1249-1273.

Ferreira, A. & Moulang, C. (2009). Does the involvement of management accountants in strategic management processes enhance organisations' strategic effectiveness? An empirical analysis. Available at: <http://dx.doi.org/10.2139/ssrn.1515670>.

Gerdin, J., Messner, M. & Mouritsen, J. (2014). On the significance of accounting for managerial work. *Scandinavian Journal of Management*, Vol. 30(4), pp. 389-394.

Goretzki, L., Strauss, E. & Weber, J. (2013). An institutional perspective on the changes in management accountants' professional role. *Management Accounting Research*, Vol. 24(1), pp. 41-63.

Granlund, M. & Lukka, K. (1998). Towards increasing business orientation: Finnish management accountants in a changing cultural context. *Management Accounting Research*, Vol. 9(2), pp. 185-211.

Guilding, C., Cravens, K.S. & Tayles, M. (2000). An international comparison of strategic management accounting practices. *Management Accounting Research*, Vol. 11(1), pp. 113-135.

Guilding, C. & McManus, L. (2002). The incidence, perceived merit and antecedents of customer accounting: an exploratory note. *Accounting, Organizations and Society*, Vol. 27(1), pp. 45-59.

Hall, M. (2010). Accounting information and managerial work. *Accounting, Organizations and Society*, Vol. 35(3), pp. 301-315.

Hiebl, M.R.W. (2018). Management accounting as a political resource for enabling embedded agency. *Management Accounting Research*, Vol. 38, pp. 22-38.

Ittner, C.D. & Larcker, D.F. (1997). Quality strategy, strategic control systems, and organizational performance. *Accounting, Organizations and Society*, Vol. 22(3), pp. 293-314.

Jones, K.K. & Glover, H. (2018). From Bean Counter to Business Partner – Internal Audit: The New Source of Executive Leadership. *Journal of Managerial Issues*, Vol. 30(3), pp. 276-303.

Jordan, S. & Messner, M. (2012). Enabling control and the problem of incomplete performance indicators. *Accounting, Organizations and Society*, Vol. 37(8), pp. 544-564.

Järvenpää, M. (2007). Making Business Partners: A Case Study on how Management Accounting Culture was Changed. *European Accounting Review*, Vol. 16(1), pp. 99-142.

Jönsson, S. (1998). Relate management accounting research to managerial work! *Accounting, Organizations and Society*, Vol. 23(4), pp. 411-434.

- Lambert, C. & Sponem, S. (2012). Roles, Authority and Involvement of the Management Accounting Function: A Multiple Case-study Perspective. *European Accounting Review*, Vol. 21(3), pp. 565-589.
- Langfield-Smith, K. (2008). Strategic management accounting: how far have we come in 25 years? *Accounting, Auditing & Accountability Journal*, Vol. 21(2), pp. 204-228.
- Lawson, R. (2016). How controllers become business partners. *Strategic Finance*, Vol. 98(1), pp. 24-31.
- Lindholm, A. (2018). Developing management accounting for long-term decision-making: empirical examinations from the customer and supplier perspectives. Tampere University of Technology.
- Ma, Y. & Tayles, M. (2009). On the emergence of strategic management accounting: An institutional perspective. *Accounting and Business Research*, Vol. 39(5), pp. 473-495.
- Miller, P. (2001). Governing by Numbers: Why Calculative Practices Matter. *Social Research*, Vol. 68(2), pp. 379-396.
- Mouritsen, J., Hansen, A. & Hansen, C.Ø (2009). Short and long translations: Management accounting calculations and innovation management. *Accounting, Organizations and Society*, Vol. 34(6), pp. 738-754.
- Nielsen, L.B., Mitchell, F. & Nørreklit, H. (2015). Management accounting and decision making: Two case studies of outsourcing. *Accounting Forum*, Vol. 39(1), pp. 64-82.
- Pierce, B. & O'Dea, T. (2003). Management accounting information and the needs of managers: Perceptions of managers and accountants compared. *The British Accounting Review*, Vol. 35(3), pp. 257-290.
- Quattrone, P. (2016). Management accounting goes digital: Will the move make it wiser? *Management Accounting Research*, Vol. 31, pp. 118-122.
- Quinn, M. (2014). The Elusive Business Partner Controller. *Controlling & Management Review*, Vol. 58(2), pp. 22-27.
- Roslender, R. & Hart, S.J. (2003). In search of strategic management accounting: theoretical and field study perspectives. *Management Accounting Research*, Vol. 14(3), pp. 255-279.
- Sathe, V. (1983). The controller's role in management. *Organizational dynamics*, Vol. 11(3), pp. 31-48.

- Saukkonen, N., Laine, T. & Suomala, P. (2018). Utilizing management accounting information for decision-making. *Qualitative Research in Accounting & Management*, Vol. 15(2), pp. 181-205.
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research methods for business students*. 5th edn. Prentice Hall.
- Sprinkle, G.B. (2003). Perspectives on experimental research in managerial accounting. *Accounting, Organizations and Society*, Vol. 28(2), pp. 287-318.
- Suomala, P., Manninen, O. & Lyly-Yrjänäinen, J. (2011). *Laskentatoimi johtamisen tukena*. Edita Publishing.
- Tillmann, K. & Goddard, A. (2008). Strategic management accounting and sense-making in a multinational company. *Management Accounting Research*, Vol. 19(1), pp. 80-102.
- Weißberger, B.E. & Angelkort, H. (2011). Integration of financial and management accounting systems: The mediating influence of a consistent financial language on controllership effectiveness. *Management Accounting Research*, Vol. 22(3), pp. 160-180.
- Weißberger, B.E., Angelkort, H. & Holthoff, G. (2012). MAS Integration and Control-ship Effectiveness: Evidence of a Preparer-User Perception Gap. *Business Research*, Vol. 5(2), pp. 134-153.
- Windeck, D., Weber, J. & Strauss, E. (2015). Enrolling managers to accept the business partner: the role of boundary objects. *Journal of Management & Governance*, Vol. 19(3), pp. 617-653.
- Wolf, S., Weißberger, B.E., Claus Wehner, M. & Kabst, R. (2015). Controllers as business partners in managerial decision-making: Attitude, subjective norm, and internal improvements. *Journal of Accounting & Organizational Change*, Vol. 11(1), pp. 24-46.
- Wouters, M. & Verdaasdonk, P. (2002). Supporting management decisions with ex ante accounting information. *European management journal*, Vol. 20(1), pp. 82-94.
- Yin, R.K. (2003). *Case study research: design and methods*. 3rd ed. Sage Publications, Thousand Oaks (CA).
- Zoni, L. & Merchant, K.A. (2007). Controller involvement in management: an empirical study in large Italian corporations. *Journal of Accounting & Organizational Change*, Vol. 3(1), pp. 29-43.

APPENDIX A: FINANCIAL MANAGEMENT INTERVIEW TEMPLATE

Introduction

1. Could you briefly tell about your background and current job description?

Business controlling supporting managerial work and decision-making

2. How does business controlling currently support managerial work and decision-making?
 - a. What kind of support is given in decision-making processes?
 - b. What kind of information is provided to support decision-making?
 - c. Is the support active or rather given on request?
 - d. Is the support timely?
3. Could you give examples of situations where BC in your opinion has supported decision-making well?
 - a. How did the support affect the decision-making?
4. Could you give examples of situations where BC in your opinion has not supported decision-making well?
 - a. In what kind of situations business management would have wished for more support from BC? What kind of support?
5. How well do the systems enable the supporting of managerial work and decision-making?
 - a. Is information accessible for you and the business management?
6. What kind of information should be provided to better support the business that is not provided at the moment?
 - a. What kind of benefits would be gained from this information?
 - b. How should the information be provided and presented? (e.g. self-service or fixed reports)

Improving business controlling in supporting managerial work and decision-making

7. What are the most important improvements for BC to better support managerial decision-making?
 - a. Why are each of these important?
 - b. What benefits would be gained from these improvements? Why?
 - c. What are the requirements for achieving each of these?
 - d. How should each of these be done?
8. Could you list the previously mentioned improvement areas in an order of importance?
 - a. Why in this order?

9. What are the barriers and challenges in achieving the improvements?
 - a. What causes the barriers and challenges?
 - b. How can they be overcome?

Ideal state of business controlling

10. What is your idea of a high-performing business controlling function?
 - a. What are the success factors that enable high performance?
11. How would business controlling becoming more business-oriented and an active business partner affect the organization?
 - a. What kind of benefits would be gained?
 - b. What are the success factors for becoming a more active business partner?
 - c. Are there any risks or drawbacks?
12. What kind of improvements should business controlling function pursue to adopt a more active and business-oriented role?
 - a. What benefits would each of these provide?
 - b. How can they be achieved?
 - c. In what order of importance should they be done?
13. How would it show in your work if business controlling was at its best performance and would support managerial decision-making as well as possible?

Ending the interview

Would you like to discuss some additional topics or comment on something else? Do you have any questions regarding the research?

APPENDIX B: BUSINESS MANAGEMENT INTERVIEW TEMPLATE

Introduction

1. Could you briefly tell about your background and current job description?

Business controlling supporting managerial work and decision-making

2. How does business controlling currently support managerial work and decision-making?
 - a. What kind of support is given in decision-making processes?
 - b. What is the role and competence of business controlling?
 - c. Is the support active or rather given on request?
 - d. Is the support timely?
3. Could you give examples of situations where BC in your opinion supports or has supported managerial work and decision-making well?
 - a. What was the role of business controlling? What was the role of provided information?
 - b. How did the support affect the decision-making?
4. In what kind of situations would you have wished for more support from BC?
 - a. What kind of support and when?
 - b. How should the support be given?
5. How well do the systems currently support the usage of information in managerial work and decision-making?
 - a. Is the information accessible?
6. What kind of information should be provided to better support the business that is not provided at the moment? (e.g. internal or external, financial or non-financial)
 - a. What kind of benefits would be gained from this information?
 - b. How should the information be provided and presented? (e.g. self-service or fixed reports)

Improving business controlling in supporting managerial work and decision-making

7. What are the most important improvements for BC to better support managerial decision-making?
 - a. Why are each of these important?
 - b. What benefits would be gained from each of these improvements? Why?
 - c. What are the requirements for achieving them?
 - d. How should they be done?
8. Could you list the previously mentioned improvement areas in an order of importance?
 - b. Why in this particular order?

9. What are the barriers and challenges in achieving the improvements?
 - a. What causes the barriers and challenges?
 - b. How can they be overcome?

Ideal state of business controlling

10. What are your expectations on BC becoming more business-oriented and a more active business partner?
 - a. Would you wish for a more active role from BC? Why/why not?
 - b. What benefits would be gained?
 - c. What are the success factors for achieving this?
 - d. Are there any risks or drawbacks? Why?
11. What kind of improvements should business controlling function pursue to adopt a more active and business-oriented role?
 - a. What benefits would each of these provide?
 - b. How can they be achieved?
 - c. In what order of importance should they be done?
12. How would it show in your work if business controlling was at its best performance and would support managerial decision-making as well as possible?

Ending the interview

Would you like to discuss some additional topics or comment on something else? Do you have any questions regarding the research?