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Bridging the GAAP?

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Bridging the GAAP?

IFRS in accounting practice

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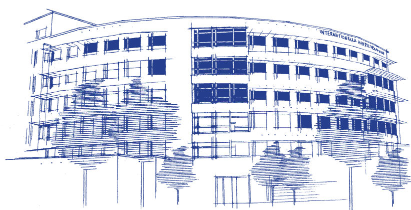

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How can something intended for financial representation become important for value creation? This thesis finds that the IFRS requirements for goodwill accounting and leasing become associated with operations management activities, helping to create the faithful records that sum up the organization.

The constitutive role of the financial reporting standards found in the organization both solves tensions and dilemmas around the number and creates new ones when crucial interests are lost in translation. These tensions and dilemmas arise between the aim of standardization and closure for the construction of a legitimate value *of the* future, and the aim to mobilize numbers in order to motivate and create value *for a* future.

This thesis offers a new perspective on IFRS implementation by emphasizing organizational activities. While previous research commonly separates between financial accounting, management accounting and other fields of organizational activity, this study moves away from a priori distinctions, following the construction and mobilization of accounting numbers across institutionalized boundaries within and around the organization.

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To Ben and Jonas

Yours is the light by which my spirit's born:
you are my sun, my moon, and all my stars.

(E.E. Cummings)

Acknowledgements

What a roller coaster this journey has been! Many emotions, thoughts and actions have come together in these years to make this thesis come about. As I am in favour of networks, I am proud to say that this work is a star-shaped entity in its own right. Many human and non-human actors have shaped the thesis and I can mention only a few of them here. However, I will try to express my gratitude and appreciation at least to those key human actors that were closest to me during my process of writing and becoming an academic scholar.

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Abstract

This thesis investigates how International Financial Reporting Standards (IFRS) come to act within an organizational context. In particular, the thesis explores how the requirements for goodwill accounting and leasing influence organizational calculative practices, transforming and shaping operations management. Drawing on actor-network theory, this study moves away from a priori distinctions, following the construction and mobilization of accounting numbers across institutionalized boundaries within and around the organization.

The empirical investigation took place in a large, worldwide active media group that is listed on a European stock exchange. The group is a particular interesting setting because of its diverse business structure and its German code-law accounting roots. Business combinations are a major growth factor within the industry and a high degree of decentralization in the organization placed responsibility for investment decisions at low hierarchical levels. Goodwill accounting and impairment testing were therefore highly significant calculative practices in the group.

The study finds that the constitutive role of the financial reporting standards in the organization both solves tensions and dilemmas around the number and creates new ones when crucial interests are lost in translation. These tensions and dilemmas arise between the aim of standardization and closure for the construction of a legitimate value *of the* future, and the aim to mobilize numbers in order to motivate and create value *for a* future.

Originally intended for the financial representation of organizational substance and performance, the standards become associated with operations management activities, helping to create the faithful records that sum up the organization. This interrelation helps to close concern around the representation of the future in a 'fair' value by distributing the calculative practices over a wide network of actors spanning inside and outside the organization. However, the relationship also forces a connection between calculations and ambitions that otherwise would have preferred to stay separate.

This thesis offers a new perspective on IFRS implementation by emphasizing organizational activities. Through a focus on integration and the link between financial and management accounting, the 'implementation problems' highlighted in previous literature gain a refined theorization. When taking organizational practice seriously, integration becomes a process that may find temporal stability but will never be final. In the process, conflicts might be solved but new dilemmas will arise. In turn, concepts like decision usefulness, comparability and earnings management cannot exist in a stable form but are rather constructed in networks that disregard commonly assumed boundaries inside and around the organization.

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Prologue

> *I started at this company in the finance department, 33 years ago, directly after my studies. The complete financial strategy, the corporate financing, and all that is connected to it, was connected to this department; all acquisitions and sales and all their economic consequences. Monthly planning and reporting, as well as the financial development in the group and the financial controlling, were also done in this department. Operational reporting was prepared by the 'internal reporting' department including an own policy development team. Everything came together there. We were very close. We also had the strategic controlling department which prepared the strategy and reporting or other information for the board members. The three together were the core of the corporate management.* **In addition, we had something called external accounting, which no one cared about***, except for the CFO who needed to publish a signed balance sheet (…) and who needed to give a press conference either late in the financial year or earlier, with preliminary numbers.* **Then the company opted for IFRS** *(…) and then we absolutely wanted to harmonize internal and external accounting. (…) This made me one building stone in all these plans and I was placed accordingly [into the external reporting department]. Back then, I perceived this as absolute degradation. I was full of anger that I had to join such a dusty crowd. (…) Thinking back, this was the best decision I ever made in my life.* **This dusty crowd became the heart and centrepiece of the organization.** *Everything that in the earlier days had been handled by the operational departments today is done in group accounting. We report the operative monthly reports, the budgets (…), and the reporting to the board members. Due to the harmonized internal and external accounts, and due to the fact that performance measurement builds on this reporting, a completely new way of thinking has come about. Everything has changed. (…) In my view, [IFRS accounting] has become the basis for all corporate management.*[1] *[Emphasis added]*
>
> Head of group accounting, group HQ

In the above conversation, the head of group accounting at the case group's headquarters (group HQ) implies that since the introduction of International Financial Reporting Standards (IFRS), financial accounting practice has played a very active role in the organization. This suggestion challenges the more conventional view of financial accounting as a representation of organizational practices and values. The statement also implies that what was important and valuable in the organization was translated to accommodate a new role for IFRS.

[1] All quotations included in this study are translated from German to English by the author. References to people, departments, companies and the like have been anonymized by using fake names or appropriate descriptions.

Prior to being a doctoral student, I worked for one of the Big4 auditing companies as an accounting consultant, implementing the new IFRS standards in different organizations in Germany, helping them to adapt their financial reports to comply with the new requirements. My experience mirrors the head of group accounting's perception quoted above that IFRS changes more than just the numbers; it changed systems, organizational practices, notions of accountability and the role of representation within the companies.

Starting in academia, I found that research on how financial accounting standards are embedded in an organizational context was a phenomenon that was of interest to the research community; there had been several calls for more research over the last decades. However, there was little empirical ground for theorization.

Thus, this study is an academic endeavour that is born from a personal interest to understand how different organizational practices in the realm of numbers, valuation and evaluation come together, mediate and translate each other. My background in IFRS accounting helped me considerably in getting company access as well as during the interviews and field stays. It helped me to gain trust from my respondents and to not be overwhelmed by the information they provided me. The challenge of being 'blind' because of my background I managed well, I believe, by being constantly aware of not taking concepts for granted, by having many discussions with fellow researchers, by understanding that IFRS requirements have changed substantially since I have last worked with them, and by acknowledging that every organization has its own ways and practices of working with the standards.

1 Introduction

This introductory chapter serves to introduce the theoretical problem as well as to provide the motivation for this study and the site of investigation chosen. It places the study in the scientific realm by discussing achievements and areas of neglect in previous research on the relationship between financial accounting and operations management. Moreover, it presents the purpose of the study and its research questions, as well as its aimed contribution. The chapter ends with an outline of the structure of the thesis.

1.1 Setting the problem

International Financial Accounting Standards (IFRS) gained wide interest in the financial accounting research community before and after their mandatory adoption for listed companies in the European Union.[2] Today, around 120 countries either require or permit the use of IFRS, including the countries within the European Union, Australia, Canada, Japan, Republic of Korea and South Africa (IASB 2013). The general hope is for these international standards to connect and bring together the financial markets of the world in order to enhance capital flows as well as cross-national cooperation (Mennicken, 2008). The explained objective of the standard setter therefore is

> … to develop, in the public interest, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based on clearly articulated principles. These standards should require high quality, transparent and comparable information in financial statements and other financial reporting, to help investors, other participants in the various capital markets of the world and other users of financial information to make economic decisions.
>
> IASB (2012) *Preface to IFRS*, Par. 6

In the context of IFRS research, both pre- and post-mandatory adoption, two aspects of this aim have mainly been challenged. Firstly, whether IFRS

[2] The standards do not have a legal quality per se. They have, however, been connected to company law in many jurisdictions including Germany, thus, granting them law-like status. Between 1998 and 2004, the German government allowed companies to prepare their consolidated group accounts in accordance with either US-GAAP or IFRS instead of German-GAAP. The case group opted for voluntary IFRS reporting since 2002. Through Regulation (EC) No. 1606/2002 of the European Parliament and the Council, 19 July 2002, companies with stocks listed on a European stock exchange are required to prepare their financial statements in compliance with IFRS as of 1 January 2005. This regulation has been implemented in German law in Par. 315a HGB (German Commercial Code).

implementation led to higher accounting quality and secondly, how IFRS are able to make financial statements internationally comparable.

The unifying research question in this literature is to investigate how and in what ways the implementation of IFRS was a success in terms of increased accounting quality and comparability. Accounting quality is operationalized in the studies as different measures of earnings management, comparability or transparency in disclosure quantity and compliance with the disclosure requirements. The findings of these studies are ambiguous, depending on the database and indicators used. A number of studies suggest an improvement of quality of financial reporting relative to the use of domestic accounting standards with respect to earnings management (Aussenegg, Inwinkl, Jelic, & Schneider, 2011; Barth, Landsman, & Lang, 2008), as well as more disclosure and, thus, greater transparency (Daske & Gebhardt, 2006). While studies on the comparability of accounting information provide interesting insight on the choice of accounting methods, they take comparability of accounting information for granted if the same method is applied for similar items (e.g., Archer, Delvaille, & McLeay, 1995; Murphy, 2000), or acknowledge that there might still be differences despite the same valuation method (Barlev & Haddad, 2007; Nobes, 2006) but fail to give a detailed account on how such comparability could come about in situations where there are no comparable markets.

Substantial evidence exists suggesting that the mere adoption of IFRS is not sufficient to secure quality and comparability of accounting. Factors such as consistent application through appropriate enforcement, including enforcement bodies and audit function (Brown & Tarca, 2005; Daske, Hail, Leuz, & Verdi, 2008; Schipper, 2005; Van Tendeloo & Vanstraelen, 2005), the role of institutional factors (Burghstahler, Hail, & Leuz, 2006; Soderstrom & Sun, 2007), actors' incentives (Ball, Robin, & Wu, 2003), IFRS expertise (Schipper, 2005) as well as cross-listings with the US market (Hail & Leuz, 2009) have been shown of relevance for accounting quality.

While these studies have led to substantial knowledge about the financial outcomes of IFRS implementation in terms of company valuation, cost-of-capital assessments and earnings management, they can only hint at the problems and dilemmas that are faced when *adopting* IFRS. Due to their methodological grounds, these studies do not enhance our knowledge of how IFRS act and react in an organizational realm. The *work* that lies behind adoption remains in the shadows of these studies and the success or failure of IFRS thus remains linked to an underlying assumption that representation of organizational substance is an unproblematic given if certain factors are in place. However, within organizations diverging and competing ambitions of the number are at stake (Czarniawska, 2004; Dechow & Mouritsen, 2005). Little research has been carried out on how international standards connect the diverging ambitions and purposes of accounting in the local setting, i.e., the organizations.

Mennicken (2008) presents a study on the translation of international auditing standards, one of the few financial accounting studies that embrace different methodological approaches and are able to show how global standards interact with the local setting. She convincingly shows the fragilities and ambiguities that relate to global standards and their translation into existing auditing practice. Following the international auditing standards in an organization framed by post-Soviet Russian ideology, the author finds that "what standardization means is constantly made and traversed" (p. 410). Her study challenges the assumed international comparability of standards with local enactment and international reputation.

The ideological distance Mennicken finds in her study between the Western perception of an audit and the post-Soviet Russian dreams, expectations and routines in local auditing practice has parallels in the introduction of IFRS into countries in which Generally Accepted Accounting Principles (GAAP) have historically been conservative. In Germany for example, accounting practice under local German-GAAP[3] traditionally is grounded in a strong focus on creditors, promoting the prudence principle to a higher degree than in the Anglo-Saxon context (Haller, 2003). Because of its focus on investor decision making and shareholder value, IFRS intervenes by including market values in financial accounting to a greater extent than local GAAP (Bromwich, 2007; Power, 2010). Studies on the development and mobilization of these calculative practices are particularly interesting in countries like Germany, because the standards introduce two related but distinct concerns.

One concern is that through the extended use of fair value accounting, the future has to be taken into account in a more direct and precise way (Taipaleenmäki & Ikäheimo, 2011). For certain calculations such as those involved in goodwill accounting, IFRS require a distinct statement on future values. Goodwill accounting consists of an initial recognition of goodwill by means of a purchase price allocation (PPA) when the purchase price of an acquired company is allocated to the acquired assets and liabilities. This includes stepping up (re-valuing) assets to fair market values and providing a goodwill value for the remainder of the purchase price. PPAs thus produce the balance sheet from which amortization and impairment are subsequently calculated.

The second concern is that such calculative practices problematize conventional institutional boundaries within firms as well as between firms and environments. This includes the commonly assumed boundary between financial and management accounting (Hemmer & Labro, 2008; Taipaleenmäki & Ikäheimo, 2011). IFRS require goodwill impairment testing to include budgets about the future which conventionally would be understood as an 'internal' managerial concern and not primarily an 'external' reporting concern

[3] German local Generally Accepted Accounting Principles (GAAP) are regulated in the German Commercial Code, for individual companies as well as for group accounts. During the thesis, the concept of local GAAP is used interchangeably with German Commercial Code.

(Quagli, 2011; Zambon, 2011); IFRS link financial markets and organizations via calculative practices that have previously been thought to have their own independent rationales but are now related by integrated information technologies made more plausible by IFRS. This implies potential dilemmas, because perceptions about what the future holds might be different in different contexts and for different accounting purposes. Calculative practices that have been used internally now have to be merged with practices connected to company reporting, and thus, to standard requirements with legal awareness.

Internationally acting organizations thus need to forge a bridge between international and local accounting ideology (Glaum, 2000; Glaum & Mandler, 1996). However, they also need to bridge the gap between GAAP and management accounting notions of value. On further thought, bridging implies two separate entities becoming bound by something, but keeping their own boundaries. So is it really possible to bridge GAAP? Or is it rather the case that the institutional boundaries that we commonly draw and accept are only loose couples, becoming mutually constitutive entities? Questions on how IFRS become translated into the organization and how they are related to, integrated with or separated from local accounting practice are at the heart of this study.

Existing research on calculative practices suffers from a lack of attempts to cross institutionalized boundaries (Vollmer, Mennicken, & Preda, 2009). This study makes an effort to follow IFRS in an organization without focussing on a priori distinctions of accounting activities. It does so in an empirical setting that is particularly suitable: a capital market oriented group of companies with its group HQ located in Germany. The group has used IFRS since 2002 and by the time of investigation it held more than 30% of its total assets as goodwill. The group was a particular interesting case, because in Germany the move towards international, investor oriented standards was a significant event (Glaum & Mandler, 1996). German accounting practice has also been acknowledged as a particular context in prior studies (e.g. Ernstberger, Stich, & Vogler, 2008; Glaum & Mandler, 1997; Weißenberger & Angelkort, 2011; Weißenberger, Stahl, & Vorstius, 2004). Stemming from a code-law tradition, German accounting practice is characterized by a focus on creditor protection, emphasizing the prudence principle; a close link to tax accounting, and, a strong separation between controlling and financial accounting where controllers traditionally specialize in planning, budgeting and short- and medium-term performance analysis independently of financial reporting requirements (Ewert & Wagenhofer, 2006; Weißenberger & Angelkort, 2011). IFRS instituted a new practice, pushing towards an integration of business and accounting practices via future expectations. While for British and American accountants an orientation towards fair value accounting has a long tradition (Mennicken & Millo, 2012), in Germany this was new to many accountants and this brought to light dilemmas around the relationships between financial reporting and management control.

In addition, the group was active in different media sectors such as print and publishing, television and digital services. Being active in extremely diverse markets, the organization showed a high degree of decentralization. Investment decisions were taken even at very low levels of the organizational hierarchy and business combinations represented a major driver of growth. The case group therefore was well suited to study how IFRS related to internal affairs, because the standards had been around for some time, leaving traces of their activity, and were potentially important at different levels of the organization. Next to financial instruments, fair value accounting in relation to goodwill and impairment testing is one of the most complex endeavours (Huikku, Mouritsen, & Silvola, 2013; Martin, 2003; Seetharaman, Balachandran, & Saravanan, 2004; Wulf, 2009), and this case provided the opportunity to investigate how such complexity is linked to operational practices in a business that depends heavily on mergers and acquisitions.

Before turning to the purpose of the study, for matters of clarification, the final paragraph of this section briefly defines the wording around the many companies involved in the investigation (see also appendix 1). In the remainder of the thesis, if not otherwise indicated, the 'organization' or 'group' is used to indicate activities of the media group as a whole, linking to the (consolidated) group accounts as well as to matters that affected all the different companies, the parent company and its subsidiaries. With regards to the structure in the group, there were emic distinctions in place that are utilized within the thesis: group HQ, divisions, business units and individual companies. For the matters of the thesis, the distinction between individual companies and business units is disregarded, because both indicated an operational level in the organization. The 'group HQ' refers to the headquarters of the group, i.e., the parent company in its relation to its subsidiaries, linking to the consolidated group accounts. The parent company as an individual company in terms of individual accounts was largely irrelevant in the study. In the few incidents in which it becomes relevant, it is termed 'parent company', linking to the local GAAP accounts of the individual company. In the study, the 'divisional HQ' were relevant in their relation to their subsidiaries, the group HQ and their consolidated sub-group accounts. They were more involved in the operational activities; however, they also fulfilled administrative roles to a large extent. In the thesis, their relation to the lower levels of the hierarchy and to the group HQ was in the foreground. The divisional HQ in relation to their individual accounts, again, were largely irrelevant. The operational core in the group was made up of the companies collected within the divisions. In emic terms these were distinguished into business units and individual companies, which was relevant for the reporting structures and the reporting packages. Business units were subsections of the divisions. In most divisions they indicated geographical differences, e.g., the German market (DE) and the rest of the world (RoW). For this thesis, however, the distinction did not appear relevant, because these units were focussed on operational activities and decision making in their role

rather than a more administrative HQ function. The business units and the individual companies grouped within these units are therefore both referred to as 'operational units' (OU). Unless otherwise indicated, the terms 'company' or 'companies' also refer to the operational units. For the remainder of the thesis therefore the terms group/organization, group HQ, divisions, divisional HQ and operational units/companies will be used to indicate the structural level present. However, as the analysis will show this does not manifest any a priori power relations.

1.2 Purpose and aimed contribution

> *"This dusty crowd became the heart and centrepiece of the organization. (…) In my view, [IFRS accounting] has become the basis for all corporate management."*[4]
>
> Head of group accounting, group HQ

This reflection of the head of group accounting represents a key observation of the thesis. How is it that financial accounting in the group moved from something unimportant to something of core interest in the organization? How did IFRS influence this transformation and how were managerial accounting practices transformed in turn?

IFRS can be understood as a frame of principles and requirements that initially are defined and inscribed into various textual and visual accounts. Standard setters, auditing companies, consulting firms and other interest groups mediate the decisions and their inscriptions. Through the ability of commenting on exposure drafts and other engagement in the negotiation of the final standards, even the companies themselves to some extent may be able to have some influence on the final standards. For the purpose of the thesis, however, the politics of standard setting are beyond the scope. Rather the focus remains on the standard's activity within the case group. Coming from a background of strong allies such as legal systems, stock exchanges and other promoters, the standards also become actors within organizations. First and foremost the standard requirements become relevant in the financial accounting realm for which they are intended. They become the point of reference for market participants like shareholders and rating agencies as well as for enforcement bodies that can impose fines on organizations that fail to comply with the standards. Differing enforcement systems are in place in different countries, but companies listed on a European stock exchange experience a high level of pressure to comply with the standards at acceptable quality. What is considered acceptable is primarily confirmed by a key institution within any enforcement system: the auditing function. IFRS, thus, has a strong role in the market and it is likely to have a specified role at least for the top level management in an

[4] See prologue for the entire quote.

organization. This institutional force, however, might struggle or become powerless when taken into a different context. Two areas of interest therefore lack investigation to date: how daily practices and decision making processes define reported numbers (Robson & Young, 2009); and how far the standards travel into the organization, linking to other organizational practices. Therefore,

> *the overall purpose of this study is to investigate how IFRS act within an organizational context.*

Taking an actor-network perspective on IFRS and its relation to organizational practices, *acting* in this thesis is understood as mediating, relating to, shaping or being shaped by organizational practices. How do the standards contribute in the defining of the faithful records that sum up the organization? Are IFRS able to relate to and translate operations on a deeper level than mere external market representation? If so, what are the translations taking place to bind different interests in the organization to support a stronger link between financial and management accounting? How are companies able to translate the principles into their operations in order to comply with the requirements? How does the transformation of abstract principles into operational practices shape the understanding, interpretation and role of IFRS in the organization in turn? Both calculative practices like valuation, planning and performance measurement as well as other activities of operations management such as organizing, decision making and strategizing are of interest for this endeavour.

Unlike some IFRS related studies that are interested in particular aspects of the standards, IFRS in this study are mostly considered in their totality: as a set of principles and requirements, an ideology that is significantly different from existing calculative practices in the group. Although IFRS 13 *Fair Value Measurement,* IFRS 3 *Business Combinations* and IAS 36 *Impairment of Assets* have a salient role in the investigation, the intention is not to dwell on the specifics of the individual standards. Rather the focus is put on how the standards are implemented in the organization, and how the operations management both in its definition of responsibilities and boundaries as well as in its evaluation of situations and expectations shifted through this new set of requirements, numbers and valuation techniques. Of key concern in the analysis is the ways in which the standard requirements are interpreted in the organization and how this interpretation becomes part of the calculative realm to define the structure and summing up of the organization. The analytical part of the thesis is separated into three chapters, each of which deals with a particular aspect of this overall research interest.

Chapter 4 is concerned with the question of *how IFRS are translated into the organization.* In order to become an actor in the organizational realm, IFRS need to take part in defining the faithful records of the organization. Different interests and ambitions of the number need to be translated if the standards and their calculative values and techniques are to stand on top of the existing calculations and evaluations. Being an external, institutionalized force of the

markets might help the standards to command the financial accounting activities, but to become important to operations management, more associations and allies are necessary.

The analysis in this chapter focusses on the efforts taking place to translate IFRS into the operations. Starting from a rather technical endeavour of systems integration[5], this chapter investigates how integration beyond a matching of accounts was possible. While existing IFRS studies mainly focus on the success or failure of IFRS implementation, omitting the level of work necessary to implement and integrate, the analysis in this study focuses on how the case group attempted to keep a stable platform for calculative practices. A stable platform was necessary to save the integrity of the key performance indicators and, thus, the acceptance and survival of the performance measurement system.

The chapter contributes to current research by showing how tensions between the different ambitions of calculative practices brought about dilemmas because they forced the organization to make decisions about what was valuable and what was to be left out in integration. Focussing on integration work gives a refined theorization of the blurred boundaries between financial and management accounting (Jones & Luther, 2005; Taipaleenmäki & Ikäheimo, 2011; Zambon, 2011), because it sheds light on how integration is created and maintained and what might be left behind in the process.

Chapter 5 is concerned with the financial accounting side of things, investigating *how a value can become a 'fair' representation of an inherently uncertain future*. The mobilization of IFRS in the financial accounting realm requires more direct and precise measurements of future expectations, e.g., in the context of business combinations. In this way, IFRS create dilemmas for organizations trying to comply with complex requirements that have no obvious right or wrong solutions. How can the requirements of faithful representation and relevance be met to create a circulating reference if the future is at stake? How can the different actors involved agree on and become comfortable with a value of the future? What role does the closer link between financial and management accounting promoted by IFRS play in the endeavour to stabilize and close the negotiations around fair value?

The analysis and discussion of these questions is placed in the context of goodwill accounting and impairment testing in the case group. The concepts of decision usefulness, faithful representation and relevance, defined by the International Accounting Standards Board (IASB) are taken as a basis of investigation, challenging their rather stable impression with the fragility of the valuation process. Mobilizing the concept of circulating reference (Latour, 1999), this chapter investigates how a circulating reference can be created under uncertainty; how a number can be defined and closed that represents the future

[5] During the systems integration the accounting definitions, measurements and reports were matched, creating one set of accounts that is valid for management as well as for statutory accounting purposes. Within the matched accounts the key concepts of revenues, profits etc. are harmonized so as to carry a unified definition and calculation.

value of a group of assets in the organization. The chapter also challenges the notion of *representation* in relation to financial reporting, because the link between financial and management accounting found in earlier literature as well as throughout this thesis implies strong links between value creation and representation.

This chapter contributes to the existing literature by moving away from a priori distinctions, following value in its construction across boundaries and highlighting the role of dispersed calculation and integration work in the process of legitimizing values. IFRS and operations management have become closely linked and partly mutually constitutive, which stands against the prominent understanding of mere representation of corporate reporting. The chapter therefore also gives a refined theorization of the complexities, negotiations and translations behind reported numbers that to date has been mostly neglected in the standard setting context as well as in financial accounting research.

Chapter 6 takes a further look at the management accounting side of things by investigating *how IFRS relate to existing operations management practices* concerned with decision making, organizing, evaluating and strategizing. What are the consequences of blurred boundaries between financial and management accounting? How far does the authority of IFRS reach into the operations? How are the different ambitions of the number related, integrated or separated in integrated accounting systems?

For the analysis and discussion of these questions both goodwill accounting and leasing are used as examples to display the complexity of interrelations. A link is established between the standard requirements with their aim to produce decision useful reporting and the value creation activities of the organization. Business planning and performance measurement practices are mediated and gain complexity when the standards are taken into account. The existing networks around the group's calculative practices shifted in order to accommodate the different requirements and ambitions.

The chapter contributes to existing discussions on integration and implementation of standards because it adds complexity to the endeavour. Including financial accounting as one driver in the operational negotiations reveals new dilemmas. While IFRS might have been able to solve dilemmas in terms of distance between reporting and operations, in terms of creation and representation, it also created new dilemmas, because operations management becomes linked to standards that are defined in and for a different space. Growth ambitions could be slowed down by the requirements of normal development, performance indicators became alien because of a strengthened influence of the balance sheet.

1.3 Structure of the thesis

This dissertation is divided into seven chapters. Chapter 1 outlines the study, presenting the gap in existing research as well as the purpose of the study and its aimed contribution. Chapter 2 offers the theoretical foundation of the thesis. Both financial and management accounting literature in the context of standards implementation, the construction and mobilization of accounting numbers as well as their constitutive roles are presented. Actor-network theory and the concepts used to analyse and discuss the empirical material in the study are presented in the second part of this chapter. Chapter 3 then gives insight to the philosophical basis of this study and presents the case study design and motivation. Furthermore, this chapter elaborates on the methods chosen as well as reflecting on the trustworthiness of the qualitative approach. Chapters 4 to 6 show the analysis and discussion of the empirical material on three themes: overall integration work (Chapter 4), the financial accounting side of things (Chapter 5) and the management perspectives on integration (Chapter 6). Each of the chapters contains an introduction to the particular theme, an analysis section presenting the material as well as a discussion linking it to the specific domain theoretical literature. The final chapter, Chapter 7, concludes the study with an overall discussion in two parts: firstly, linking back to financial accounting literature, challenging the taken for granted understanding of decision usefulness, and secondly, integration literature, complementing and extending existing integration literature with a focus on IFRS. The thesis concludes with a reflection on the study and suggests possible future directions for research.

2 Theoretical and meta-theoretical considerations

This chapter presents the theoretical background of the study. Firstly, the ontological basis of the work and its epistemological considerations for the research project are elaborated. The second section, then, introduces the accounting domains in which the thesis is embedded; before the third section presents actor-network theory (ANT) and the key concepts relevant for the study. This section also outlines how these concepts were mobilized for the analysis and discussion of the empirical material.

2.1 Ontological and epistemological considerations

In order to produce knowledge, it is important to become aware of how we gain knowledge. Traditionally, philosophy of science makes a distinction between ontology, the part of philosophy concerned with what there is or could be, and epistemology, the part that is concerned with how we gain knowledge about what there is (Law, 2004). Dating back to ancient Greek,[6] from an ANT perspective, this divide is one of the great misunderstandings in science that hinders us from seeing and understanding actual scientific practice. Such a distinction builds on the idea of a settlement in society that separates between a world "out-there" and a "mind-in-a-vat" that is isolated from this world. From an ANT perspective, there is no ontology without epistemology, no reality without representation (Latour, 1999). For lack of a better word, Latour (1999) describes this as "constructivist realism" (p. 135), a more "realistic realism" (p. 15) because it acknowledges the activity of humans and the activity of non-humans alike in a collective. The world then does not exist independently of our minds. The construction of reality is achieved in a collective of humans and non-humans with equal constitutive characteristics. When ignoring human activity in the creation of knowledge, letting the work done by scientists lie in the shadow, naïve realism arises where the separation of

[6] Ontology derives from a connotation of the Greek words "ontos", which means "to be" and "logos", which means "science or study", and thus describes the study of what there is, the understanding of reality. Epistemology also derives from a connotation of Greek words, "episteme", meaning knowledge, and "logos", i.e. the study of how to gain knowledge about the world.

mind and world seeks to look only for the object. On the other hand, social constructionism ignores the autonomous activity of the non-human entities in the collective, looking only for the subject.

ANT holds the claim that the methods used in a scientific encounters help to produce the realities they understand. Drawing on Latour and Woolgar's (1986) study on the construction of scientific facts, Law (2004) elaborates:

> (…) *particular realities are constructed by particular inscription devices* and practices. Let me emphasise that: *realities* are being *constructed*. Not by people. But in the practices made possible by networks of elements that make up the inscription device – and the networks of elements within which that inscription device resides. [Emphasis in original]
>
> Law (2004, p. 21)

The understanding of reality therefore is neither empiricist nor constructivist but ignores the distinction between the mind and the independent world altogether. Instead, ANT proposes the collective. Therefore, having different viewpoints and interpretations is possible because the object allows us to see the different facets of its being (Latour, 2005). However, at the same time this stance acknowledges that human action is also enmeshed in the collective that creates reality. Law elaborates further:

> Realities are produced along with the statements that report them. The argument is that they are not necessarily independent, anterior, definite and singular. If they appear so (as they usually do), then this in itself is an effect that has been produced in practice, a *consequence* of method.
>
> Law (2004, p. 38)

Therefore, regardless of which methods are used, an independent reality will not be discovered; it will be construct together with the human and non-human actors involved in the endeavour. Yet, ANT strongly separates itself from a relativist stance, because the non-humans are granted the same agency as the humans. Being 'objective' then means staying with the object. This is not about representing a unified, independent world with rigorous scientific methods. Neither is objectivity lost in a multitude of different interpretations of a singular world by many separate minds. Instead, being objective lays open and makes transparent the chains of transformation between matter and form in scientific work. Creating a rich and detailed textual account of the phenomenon and the transformations that have taken place to create the textual account of the phenomenon, i.e., the thesis, then becomes a central part in creating a circulating reference that is considered a fact, knowledge or truth.

In ANT practice, the aim is to follow the different actors and describe the ways in which they mediate other actors in the collective. With the textual account of my research, I construct a reality of IFRS. To convince the reader of the validity of this textual account, in the method section I will try to describe in detail how I came from matter to form in the sense that I will lay out how I

planned this study, chose the case, defined the interview partners, made sense of the material and so forth. During the analysis, I also use many quotations to give an impression of my sense making. I have to acknowledge that bringing the verbal accounts of the respondents into written form, especially when translating them from German into English, already represents at least two transformations: from a verbal to a textual account and from one language to another. Nevertheless, I hope it will give the reader a chance to follow my reasoning. Before turning to a more detailed description of the case study design and the collection of material, the following sections provide the theoretical basis of the study.

2.2 Research domains

A research domain in this thesis is understood as an area of prior research in which the thesis is anchored and to which it mainly aims to contribute. Other than the theoretical ANT lens, a research domain represents the scholarly discussion which the thesis wants to engage with, even though the analysis of the empirical case shows some ambition to also challenge and widen Latour's concepts.

While to date most research conducted in accounting has been separated into either financial or management accounting literature this thesis draws together both financial and management accounting research, because it follows calculative practices without a priori distinctions of different accounting practices and purposes. The thesis therefore connects to different research domains concerned with the implementation, spread and quality of accounting information, particularly in the realm of IFRS. This part of the chapter introduces the four domains to which the thesis connects before turning to a more detailed section on ANT.

2.2.1 Studies on IFRS implementation and their limits

Because this study is concerned with an organizational focus and not primarily with a market perspective, the relevant research in the IFRS field is focussed on implementation studies. Other fields of IFRS research or, more generally, of international accounting research include studies on the politics and social processes of standard setting (Cooper & Robson, 2006; Hopwood, 1994; Hussein, 1981; Mezias & Scarselletta, 1994; Perry & Nöelke, 2005; Richardson, 2009), the strength and fragility of conceptual frameworks as a guide for standard setting (Hines, 1989; Rutherford, 2003; Whittington, 2008; Young, 2006) as well as studies on particular accounting requirements, highlighting for example critical aspects of the increasing role of fair value accounting (Barlev & Haddad, 2003; Gwilliam & Jackson, 2008; Hitz, 2007; Penman, 2007; Ronen,

2008) and its potential role in financial crises (Barth & Landsman, 2010; Heaton, Lucas, & McDonald, 2010; Laux & Leuz, 2010).

IFRS implementation studies are interested in organizational behaviour and are therefore presented here as one key research domain to which the thesis intends to contribute. In prior IFRS implementation studies, the outcome of IFRS implementation has been in the focus. When investigating the standard's influence on organizational behaviour, two competing viewpoints have become evident: one advocates the success of IFRS implementation in terms of reduced earnings management, timeliness of recognition, increased transparency and international comparability contributing to increased international financial flexibility and lower cost of capital; a counter perspective draws upon the problems related to international convergence, politics of standard setting and non-compliance with standard requirements (Bova & Pereira, 2012). An underlying research question that guides most of this literature is the question of whether the implementation of IFRS and/or the harmonization process between international standards, i.e., bringing different national accounting standards into closer harmony (Thorell & Whittington, 1994), is a success or failure in relation to the comparability of numbers or company valuation and rating respectively. Many of these studies also include investigations on the enforcement systems in place and how these systems might or might not be able to increase accounting quality.

With respect to *earnings management behaviour*, Aussenegg et al. (2011), for example, investigate publicly traded companies in 15 EU member states and two non-EU states from 1995 until the last financial statements before the mandatory adoption of IFRS in 2005, comparing early adopters with companies following local standards. The authors find that the companies that opted for IFRS manage their earnings to a lesser extent than those under local GAAP, measured with four different measures of discretionary accruals. Similar studies confirm this claim that IFRS implementation leads to leaner and less aggressive earnings management (Barth et al., 2008; Leuz, Nanda, & Wysocki, 2003). In contrast, Van Tendeloo and Vanstraelen (2005) find no significant change in earnings management in their investigation of early adopters in Germany. Their findings suggest that the low investor protection and malfunctioning enforcement system in Germany hinders a change in accounting behaviour in German companies. This finding is also confirmed in relation to disclosure compliance in the German market as described later on in this section.

Common to these studies is an underlying assumption that financial accounting information represents the organizational substance, suggesting a rather stable referent-reference relationship. If financial accounting aims to represent what is given, then phenomena like earnings management, measured with abnormal earnings, become a matter of false representation. As a consequence, researchers seek to find factors that ensure a success in implementation (Brown & Tarca, 2005; Daske et al., 2008; Schipper, 2005; Van Tendeloo & Vanstraelen, 2005) rather than challenging the simplified referent-

reference relationship. This thesis, however, takes a different stand by challenging the idea that financial accounting can be a mere representation. What is normal and abnormal becomes a refined theorization if the relationship between financial and management accounting as well as their constitutive roles in the organization (Frandsen, 2009; Miller, 1992) are taken into account.

With regards to accounting quality in a more general form, studies have also investigated whether IFRS lead to more transparency and comparability of financial information. *Transparency* in the research realm commonly is connected to disclosure quantity. The comparability of information thereby is subject to an international harmonization of standards and the compliance with these standards by the companies. Empirical studies investigate company disclosure either in comparison to local/prior standards, or in relation to compliance, i.e., investigating whether the companies comply with the disclosure requirements of particular standards or of the standards in a more general form, using disclosure checklists. Studies from the former stream often focus on countries with a wide ideological distance between local GAAP and international standards. Germany hereby is considered a critical case. Daske and Gebhardt (2006) for example investigate Austrian, German and Swiss firms that have adopted IFRS. The authors find that after the IFRS adoption the disclosure quality, and thus the reporting transparency, has increased significantly in these countries. Considering the method chosen, this is mainly to be understood as *more* accounting information. Similar studies confirm, that the move from local to international standards is correlated with more disclosed information, and thus, in the authors' interpretations with more transparency (Glaum & Street, 2003). Studies from the latter stream, i.e., those that focus on compliance with international standards, are more critical of the success of IFRS. These studies highlight the importance of company and country specific factors (Glaum, Schmidt, Street, & Vogel, 2012; Jahangir Ali, Ahmed, & Henry, 2004; Street & Gray, 2002) as well as incentive structures (Ball et al., 2003; Daske et al., 2008) for the compliance with IFRS disclosure requirements. The study at hand is not primarily concerned with disclosure. Nevertheless, transparency builds on the idea that something stable and unified is presented transparently to the public. However, at the core of this study lies the contention that such stability and homogeneity would be rare considering the many complementing and competing ambitions of accounting information in global organizations.

A third area of interest in relation to IFRS implementation is the harmonization of international standards and the *comparability* of accounting information across nations. The IASB (International Accounting Standards Board) gives a central role to the goal of comparability: it is incorporated both in the objectives of the standards and also in the form of an enhancing qualitative characteristic. Comparability enables users to "identify and understand similarities in, and differences among items" (IASB, 2012, *Conceptual Framework*, QC21). Typically, such studies, mostly popular before the mandatory adoption of IFRS, use the so called "van der Tas comparability

index" to measure an increase or decrease in the harmonization of accounting method choices across nations (e.g., Archer et al., 1995; Murphy, 2000). Archer et al. (1995) develop the index by distinguishing between intra and inter country harmonization in an eight country sample. The authors investigate the treatment of goodwill and deferred tax accounting, finding low levels of harmony. However, this study builds on data from 1986/1987 and there may have been many developments since then. Yet, further harmonization might not necessarily be only or primarily caused by IFRS adoption. Murphy (2000), for example, finds that accounting method choice of Swiss companies harmonized over an eight year period with those of companies from Japan, UK and the US. The author investigates the four accounting practices depreciation, inventory, financial statement cost basis, and consolidation practices. However, the study shows no convincing evidence that such harmonization stems from IFRS adoption. While these studies provide interesting insight on the choice of accounting methods, they take comparability of accounting information for granted if the same method is applied for similar items. From a more qualitative perspective, this is rather critical. One could argue that treating similar items alike, i.e., providing comparable information, means using the same valuation method. However, using the same accounting method might in no way lead to a similar treatment, which challenges the assumption that international standards automatically yield comparability (Barlev & Haddad, 2007; Nobes, 2006).

With the mandatory introduction of IFRS in the EU, some researchers saw the end of research concerned with the international differences of accounting. Nobes (2006), however, argues that differences in accounting remain between different jurisdictions even for consolidated statements in the EU and brings forward eight sources of such differences, amongst others they are: differences in IFRS translation, gaps in IFRS, vagueness and interpretational freedom, as well as differing enforcement systems. Instead of using the established measures, he shifts the research focus of this field towards the sources of and reasons for accounting differences in a harmonized world. Barlev and Haddad (2007) present such a study, promoting the argument that the application of international standards is not sufficient to ensure comparability. Only a common denominator can provide comparability. The authors make the strong claim that fair value accounting has the ability to be a common monetary denominator, leading to comparability and, thus, to more relevance of information and more efficient global markets. To come to this conclusion the authors assume open markets and free funds transmission between different countries. Although they acknowledge that there are many items without open markets, the authors are convinced that well designed audit schemes and strict enforcement will solve the dilemma of mark-to-model valuations (p. 506).

The thesis at hand is not concerned with fair value being a better or worse valuation measure than historical cost in terms of accounting quality. By mobilising goodwill accounting and impairment testing as one example of fair

value accounting without open markets, this thesis instead aims to challenge the seemingly taken for granted assumption that the creation of relevance of information within the context of fair value accounting is unproblematic. The thesis, thus, is taking one step back, looking at the processes and negotiations taking place *before* the outcome is achieved in the financial reports.

All of the qualities of accounting studies in the context of IFRS have been challenged in prior literature but in different ways compared to this thesis. A vast amount of literature focusses on the difficulties in achieving less earnings management or better transparency and comparability, highlighting factors that need to be taken into account before IFRS can actually change local accounting behaviour. Factors evident in earnings management as well as compliance studies are the enforcement system in place, company size and the type of auditing in place. Studies have shown that a 'Big4 audit' (Glaum & Street, 2003; Street & Gray, 2002) or dual audits (Alanezi, Alfaraih, Alrashaid, & Albolushi, 2012) increase accounting quality. Being a public company increases accounting quality as compared to private firms (Burghstahler et al., 2006). Here, both foreign ownership (Bova & Pereira, 2012), and cross listings (mainly in the US market and its strong enforcement system) increase the level of compliance (Glaum & Street, 2003; Street & Gray, 2002) and decrease earnings management (Barth et al., 2008; Barth, Landsman, Lang, & Williams, 2006; Burghstahler et al., 2006), which ultimately links to a reduced cost of capital (Hail & Leuz, 2009).

One possible conclusion from prior literature is that IFRS require substantially more disclosed information, and even if companies do not follow all the requirements, they still provide more information than under local GAAP in countries like Germany with low investor protection. Whether this additional information is useful for investment decisions or not remains questionable, however, positive effects of IFRS implementation on analyst forecast precision have been shown (Ashbaugh & Morton, 2001) subject to strong enforcement regimes and local accounting standards that are significantly different to IFRS (Byard, Li, & Weintrop, 2006; Daske & Gebhardt, 2006). In any case, the additional disclosure requirements claimed by IFRS increase the effort that needs to be put in by the organizations to fulfil the reporting requirements.

However, what also becomes evident in the prior implementation literature is that to date the chosen research methods, and/or the questions investigated, are largely unable to respond to *how* company or country specific factors become relevant. In order to accomplish this, we need to extend the traces of the number across institutionalized boundaries between organizations, standards and markets (Vollmer et al., 2009). Most existing research remains distant from the practices and activities within organizations. In addition to the complex process of standard setting (Mezias & Scarselletta, 1994; Richardson, 2009) and the difficulties of auditing IFRS financial statements, because of the increased use of fair value measurements (Martin, Rich, & Wilks, 2006; Power,

2010), international standards need to be investigated in their relation to the organizational realm.

Much can be learned by shifting the focus to a more critical view on representation, but few studies so far have contributed with empirical investigations. When exploring the relationship between the organization and its representation through accounting numbers without accepting a simple referent-reference relationship, three critical aspects arise: firstly, how financial accounting standards are translated into the organization, shifting the understanding of faithful records in the organization; secondly, how organizations create faithful representations without clear referent-reference relationships; and thirdly, how the created numbers travel back into the local setting, linking to, altering or separating from other organizational activities.

2.2.2 The translation of financial accounting standards into the organization

The IFRS implementation studies presented above disregard the effort to be spent in order to translate accounting standards into the organizational realm. Mennicken (2008) presents a study that takes the critical aspects of implementation seriously, opening up the way for new perspectives on the adoption of international standards (see section 1.1 for further elaborations on the study). The fragilities she finds in the adoption of international auditing standards parallel the IFRS adoption process, because the standards also have to move and need to be translated between different times, spaces and ambitions. However, when taking the investigation into the context of IFRS, different dilemmas arise, because the standards not only stay within their designated financial accounting realm, i.e., statutory reporting. Their relationship to other organizational activities and management accounting through systems integration brings in a greater focus on the links between financial and management accounting and how these links transform the faithful records that sum up the organization.

While Mennicken's study is the only one that explicitly takes up the issues related to the translation of international standards, other studies have problematized the commonly assumed boundaries between financial and management accounting. From a rather critical perspective, Kaplan and his colleagues (Johnson & Kaplan, 1987; Kaplan, 1984) started a debate already in the late 1980's early 1990's on the influence of financial accounting on management accounting. The authors proposed the rather strong claim that the dominance of financial accounting notions of value in accounting systems led to a 'relevance lost' problematic of management accounting, making it less relevant for management concern. This debate attracted much international attention, even though findings from other studies did not necessarily confirm

this critical claim (Hopper, Kirkham, Scapens &Turley, 1992; Joseph, et al., 1996).

More recently, researchers have taken up this line of research again because the integration or harmonization of accounting systems has gained importance in accounting practice (Weißenberger & Angelkort, 2011). Interest has been further stimulated by the mandatory adoption of IFRS (Jones & Luther, 2005; Weißenberger et al., 2004). Contrary to the relevance lost argument, Zambon (2011) is concerned with a "managerialisation" of financial reporting. The author explains that some areas in financial reporting like financial instruments, goodwill accounting or segment reporting become so strongly linked to management accounting techniques and contents that financial accounting appears to be transformed and enlarged by managerial information towards a kind of business reporting. One possible dilemma presented in the article is that the reliance on specific management accounting data could jeopardize the generalizability and comparability of financial accounting information, leading to a perceived loss of objectivity, neutrality, respectability and practical relevance. Tiapaleenmäki and Ikäheimo (2011) confirm the view that the convergence of management and financial accounting increases the importance of management accounting information. In particular, forward-looking information required by international standard setters as included in IFRS 3 *Business Combinations* in combination with IAS 36 *Impairment of Assets* and in IFRS 8 *Segment Reporting* promote management information as the basis for valuations.

Despite these relationships, Quagli (2011) finds a severe lack of research with respect to the links between the fields of accounting. Focussing on impairment testing of goodwill the author presents a literature review of financial and management accounting literature finding little to no scholarly interest in the relationship between the fields with respect to impairment testing on goodwill. While financial accountants seem highly involved in the topic, they neglect the inner organizational consequences in their investigations. Management accountants, on the other hand, do not seem to engage in the issue at all and the author concludes that a possible reason might be the difficulty in separating impairment losses into individual responsibility structures. Hemmer and Labro (2008) also express concern that research in the field of accounting seems to diverge more and more rapidly, while practice in the disciplines becomes closer. Not only does the separation in publishing outlets recreate this divide, management accounting research is found to be insensitive to financial accounting issues and, in turn, is becoming less relevant for standard setters. Financial accounting scholars, on the other hand, seem uninterested in managerial topics because of their preference of econometric models and the difficulties in generating such information in an management accounting context. Calling for more integrated research, the authors present a theoretical model of the relationships between management accounting systems and financial accounting information, where shareholders require information

to value the firm, while managers too need to be allowed information to inform their operating and investment decisions. Based on the theoretical model of the optimal informational basis for such integrated models, the authors claim that relating management accounting information systems to financial reporting requirements enhances the quality of provided information and, thus, of managerial decision making quality.

Certainly these theoretical accounts pose important questions, yet to date there have been only few empirical studies that have contributed to the debate. Weißenberger and Angelkort (2011) present a survey of 149 dyads of German companies that finds positive effects of accounting integration. German companies since the 1990s have started to move towards integrated accounting systems in the sense that financial records are used as a basis for management accounting information. The authors find evidence that the convergence of the accounting base by mediation of systems integration leads to increased controllership efficiency, because it provides one consistent financial language for different purposes of accounting. Jones and Luther (2005) present a case study of perceptions and expectations of managers in three German manufacturing companies and two consultancy firms, investigating how developments in corporate governance and financial accounting practice might influence and change management control and management accounting practices. Building on Johnson and Kaplan's (1987) claim of 'relevance lost' in management accounting, the authors speculate on whether such expectations could be transferred to Germany. Based on their empirical findings, the authors conclude that in integrated accounting systems it is difficult to assess whether financial accounting standards would be able to dominate management accounting practices and in what way they would do so. Furthermore, the authors propose that companies could keep separate calculative practices, such as contribution margin methods, despite conflicts with standard requirements; operating dual systems with year-end adjustments or arguing for immateriality.

Overall, the existing literature describes a strong link between financial and management accounting, grounded mainly on two sources: the integration of accounting data bases and the trend in standard setting towards the inclusion of more managerial information, partly based on future expectations. Enterprise Resource Planning (ERP) systems and their ability to integrate different informational needs are promoted as one enabler of integration (Zambon, 2011) but as will be discussed later, such integration is not a simple endeavour (Dechow & Mouritsen, 2005; Quattrone & Hopper, 2005).

The studies presented above are engaged with the links between financial and management accounting, however, to date there is little empirical foundation both in relation to how the standards enter the organization by associating with local calculative practice as well as how they become active with and through these links. The case group presented in this thesis has chosen to integrate their accounting systems and the analysis and findings drawn from the case are therefore able to contribute to the discussion on how

the standards gain influence in the organization. Instead of seeking to understand dominance of one system over the other, this thesis explores how the different ambitions and roles mediate each other and come to function together within the organization, as well as how they relate to other organizational activities.

Both the construction of faithful records in such integrated systems as well as the constitutive role of accounting numbers in relation to standards intervention and problems of integrating diverse interests have been topic in prior accounting studies. This literature is presented in the following sections.

2.2.3 The construction and circulation of critical accounting numbers

The construction and circulation of critical accounting numbers becomes a concern if simple referent-reference relationships of accounting representation are problematized. Prior literature foregrounds aspects of how such numbers are created and can circulate as faithful references both in relation to financial reporting and in relation to performance measurement.

Financial accounting studies focus on the construction of reported numbers and how different actors become comfortable with values that have no simple right or wrong solution. Huikku et al. (2013) highlight that the construction of a reliable and relevant representation is not straight forward but rather presents a challenge when the future is at stake. The process of calculating a fair value in the context of goodwill accounting needs simplification and drawing together distributed calculations. The authors look at the process of getting comfortable with an ambiguous number. This thesis also responds to the question of how fair values are constructed in relation to goodwill and impairment testing, aiming to contribute with a stronger focus on the organization and the interrelation between different calculative practices. Coming from an auditing perspective, Power (1996) finds that faith in numbers is constructed in a 'network of trust' that needs to include parties from outside of the organization, i.e., professional experts, that strengthen the network by silencing diverging views. The author investigates how auditability of critical measurements is created in relation to public sector research, quality assurance and brand valuations. The negotiation of an accepted knowledge base of auditing and the creation of an environment that is perceptible to this knowledge base in its control measures and beliefs are created through the enrolment of a wide network that needs to include external experts. The author finds that in the case of such critical measurement cases, auditors alone are no longer able to create legitimacy, but a network of trust is created with external valuation experts. Finally, Justesen and Mouritsen (2009) provide a study on the construction of inscriptions were the future also plays a leading role. In their investigation of 3-D visualizations of building projects in the annual reports of a Danish property

developer, the authors show how images are not only rhetorical but have the capacity to bind the past, present and future of the firm in inscriptions that become relevant in many different areas of the organization. As such, these visualizations bind the interests of many different actors to carry their importance.

The aspect of wide spanning networks that enable the construction and circulation of accounting inscriptions is also taken up in management accounting literature. Briers and Chua (2001) explore how management accounting change can come about in fragile, heterogeneous networks that bind global and local actors. The authors extend the traces of accounting numbers by following the technological innovations crossing boundaries in intra and inter organizational networks. The authors contribute to the discussion by highlighting the importance of wide spanning, heterogeneous networks that localize the global and create 'faith' in the measurements despite their "soft data problems" (p. 266). When the activity based cost model is presented to a global audience by an external consultant, the suspected weaknesses of the system become obscured because the data becomes detached from its source and is represented by a respected external spokesperson. This results in the tensions, negotiations and trials of the implementation also becoming obscured. Chua (1995) puts even great emphasis on the presence of "expert-generated inscriptions" and rhetorical strategies of those mobilizing the inscriptions. Faced with the dilemma of quantitatively expressing treated patients in hospitals, the author follows a group of accountants on their endeavour to create, defend and work with accounting measures. The imperfect measures representing the cost of the treated cases could perform and persuade; by transforming hospitals into private enterprises, clients into products, and by rendering seemingly heterogeneous cases comparable, they were able to translate interests and bind the key allies to the network.

Dambrin and Robson (2011) add to the importance of wide spanning networks around the number with a study on the performance measurement of sales representatives in the pharmaceutical industry. Explicitly challenging Latour's (1999) claim that references are only able to circulate and become 'true' if the chain of transformation between matter and form is completely reversible, the authors show how weak references can perform and circulate despite a broken chain of transformation. In their study the ability of the performance measures to enable the daily practice of the sales representatives as well as their embeddedness in a bricolage of different inscriptions facilitated acceptance of the imperfect measures.

The thesis at hand is supportive of the presented literature and it adds to it by including further complexity and dilemmas when taking IFRS requirements and their interrelation with operations management into account. Both the question of *how* circulating reference can be built under uncertainty about the future and the question of how these numbers will circulate within the organization are analysed and discussed. Closely linked to this literature but

slightly separate in its ambition, a further relevant area of accounting research is concerned with the constitutive role of accounting numbers.

2.2.4 The constitutive role of accounting numbers in the organization

Accounting intervention and acting at a distance

How the numbers constructed for financial representation travel back into and act upon organizational activities so far has been of little interest for financial accounting research. That financial accounting numbers intervene in other fields of activity, however, has been revealed (Robson and Young, 2009). Mobilizing the concepts of centre of calculation and action at a distance (see 2.3.2), accounting scholars have given several examples of accounting numbers being mobilized to act upon distant entities.

In particular, accounting practices such as inflation accounting have been shown to influence and widen existing societal debates (Thompson, 1987). Robson (1994a) gives an example of such action at a distance. During the 1980s, inflation accounting techniques were mobilized by institutions and state agencies as ways of acting at a distance on firms to address a series of dispersed problems of wage bargaining, rising inflation, poor investment decision making and crises of liquidity within firms (p. 78). Likewise, action at a distance was carried out by UK governments during the 1950s and 1960s when they attempted to make companies use discounting techniques that would make organizations more positive towards growth, which was problematized as the key socio-economic problem at the time (Miller, 1991; Miller & Rose, 1990); discounting techniques would not develop particular investments but calculating selves who would be motivated to develop investments of various types (Miller, 1992). Taking up the example of post-retirement plans, studies have also shown how the redistribution of wealth focused attention towards economic categories like future benefits as well as profit fluctuations and away from ethical or moral considerations (Arnold & Oakes, 1998), which redefined the existing employer-employee relationships (Tinker & Ghicas, 1993).

While these studies show an intervention of calculative practices, the interrelation of standards with organizational internal calculative practices has not been in the foreground. How the number travels into the local setting so far has been beyond the scope of financial accounting interest. Coming from an institutional perspective, these studies provide little knowledge about the activities within the organizations acted upon.

Robson (1992) opens a more general, agenda setting, discussion on how accounting scholars could view and explore the importance and constitutive role of accounting. The study promotes Latour's (1987) concept of inscriptions to describe accounting numbers as mobile, stable and combinable entities that make quantification such a strong explanation. Numbers are not neutral

representations but inscriptions that are able to dislocate and translate a substitute of the world that enables action at a distance, to influence and mediate contexts and situations remote to the actor (ibid., p. 701). Ezzamel (1994) on the other hand finds that centres of calculation may fail to assemble sufficient allies and, thus, to exercise power at a distance when opposing groups successfully use their accounting skills to mobilize resistance. The study emphasizes the central role of accounting in situations of change and struggle from an inverse perspective.

In line with Ezzamel's finding that action at a distance can meet resistance when being enacted in the local setting, more recent research shifted the focus towards an investigation of how action at a distance can still be enacted locally despite resistance (Frandsen, 2009; Preston, 2006; Qu & Cooper, 2011). Preston (2006) shows how accounting numbers not only enable action at a distance, but also play a vital role in enacting the actions locally. The programme of livestock reductions of the Navajo herds investigated in the article carried severe consequences for those affected by it. It is during the return journey to the local setting where the explanation must resist even more objection than in its amplification into the centre. This can only be achieved through allies carrying the argument because the inscriptions mobilized in the process may have uncertain and unintended effects in the persuasion of the local setting (Qu & Cooper, 2011). Frandsen's (2009) study of numbers travelling into a centre of calculation and back into the organization is similar to the IFRS's movements. The author finds that numbers travelling into the centre of calculation are taken for granted and create knowledge about the organization. However, when travelling back into the spaces of the organization, the numbers mediate everyday work by defining the categories that sum up the organization. Accounting enables or constrains managerial practices (Belkaoui, 1978), because it defines the categories in which we can act.

> Accounting practices include particular discursive representations and vocabularies. (...) It is through such meanings that accounting practices are endowed with a significant that extends beyond the task to which they are applied, yet without determining the consequences or outcomes of their deployment in any particular setting.
>
> Miller (1994, p. 3)

Accounting, thus, organizes time and space and is also mobilized by other actors to translate interests and mediate outcomes outside of the initially intended scope. The studies presented above build a theoretical starting point of the investigations for this thesis, however, they are not concerned with different accounting ambitions and discourses. In the context of IFRS accounting, the challenge becomes even more complex, because different accounting ambitions and rationales, different discourses are at stake, so the centre itself might be fragile. The significant that extends beyond the accounting task becomes a more complex theorization when taking into

account changing or competing calculative practices. Changing accounting discourse is also discussed in Cuganesan, Boedker, and Guthrie's (2007) study of intellectual capital. The study traces the creation of a role for intellectual capital measurement, the "making visible" of knowledge resources, within an organization. The central finding is that the key actors could only be enrolled to the idea because of the ambiguity of the discourse that made it possible to translate the different interests. Instead of exchanging existing calculative practices, the new discourse merged with the existing one, mediating both managerial practice and the understanding of intellectual capital. Taking this as a starting point brings to question how IFRS as a discourse is able to enmesh with local discourse, mediating and shaping organizational practices and how, in turn, the organization defines and translates what IFRS can be in their network.

Accounting and integration

Organizational and accounting changes have been widely discussed in accounting literature. While the studies presented in the previous section focussed more on how centres are able to act, and how calculative practices are able to enrol actors in a wide network supporting the numbers, a related body of research focuses on the phenomenon that integrating different interests with the help of accounting systems has limits. The power of the centre of calculation to act at a distance can become lost both in each of the steps where records are assembled in centres of calculation and in each of the steps where action returns to the setting that produced the records (Dambrin & Robson, 2011; Frandsen, 2009; Preston, 2006).

When trying to integrate the different ambitions of the number, there may be competing centres of calculation drawing on different calculative practices (Dechow & Mouritsen, 2005; Lowe & Koh, 2007; Mouritsen, 1999; Mouritsen, Hansen, & Hansen, 2009) or there may be dispersed calculating actors and emerging centres of calculation (Czarniawska, 2004; Quattrone & Hopper, 2005, 2006). The centre of calculation may therefore be fragile and its particular effects have to be delineated and described rather than assumed.

Lowe and Koh (2007) give an example of how accounting numbers, which are commonly viewed as powerful enablers of action at a distance, can be muted by a competing centre of calculation in the production area by failing to enrol or silence significant allies like the company auditors into their network. Neither the 'accuracy' nor the 'reliability' of the accounting numbers makes them a strong argument, but the network in which they are enrolled and carried does (ibid., p. 971). In situations of competition, dominance of one centre of calculation over another is not trivial. Mouritsen (1999) exemplifies this in his study of BusinessPrint, a company torn between two management control systems – contribution accounting and activity based costing – that mediate between profitability and flexibility. The author finds that both systems defined new elements in the understanding of flexibility, closely connecting questions

of technology with questions of governance. While contribution margin accounting would foster outsourcing activities, activity based costing would present direct control more favourably, which rendered the boundaries of the firm variable, depending on which centre remained dominant. Similarly, Mouritsen et al. (2009) present a study that shows how competing calculative practices challenge each other, problematizing what innovation can be or become in the organization. The ways in which innovation is represented in accountability structures thereby directs the attention that is placed in innovative activities, mediating between innovative and firm-wide concerns. Competing concerns and calculative practices within the organization build tension because they result in at least two ways of arguing, and thus, set innovation and the firm in relation to each other, adding perspective and providing it with a stronger justification. Dechow and Mourtisen (2005) emphasize that in a processes of integration one system of logic must become appendix to another system of logic because it is impossible to capture all the different ambitions of the number. Investigating how ERP systems interact with other actors in the organization and with management control practices in two companies using SAP technology, the authors find that to integrate was a problematizing tool rather than a goal, because the endeavour of full integration is a process that can never reach an end. Although ERP systems are able to make accounting information readily available for many different parties, in the case studies the system was not able to create power for a particular centre to act at a distance. Instead, managers relied on their non-financial data as complements for management control. Accounting information became an appendix to business logic and practice rather than enabling action at a distance.

When taking IFRS into account as an actor, the dilemma faced becomes a refined theorization because the standards have a different character: they are bound to legal systems that enforce certain calculative practices over others in the context of financial accounting. While this potentially makes them strong actors in the statutory reporting of the firms, their activity in relation to existing calculative practices and structures of accountability is unknown and needs further investigation. As the prior studies show, this interrelation with existing centres and practices is bound to be a complex affair that is worth investigating because it has the potential to mediate many different practices and areas of the organization.

Czarniawska (2004) questions the notion of a centre in general. In her quest for the centre and her discovery that practically everybody in management was producing and defending financial calculations the author finds:

> It would be comforting to say that, at least, 'correct calculation beats an incorrect one', as one of the reviewers suggested. (…) An interesting situation arises when everybody is using correct calculations, but for opposite purposes (…).
>
> Czarniawska (2004, p. 778)

The author concludes that centres of calculation defined as "specific sites" that can be laboratories, statistical institutions, files of a geographer, databanks and so forth (Latour 1999, p. 304) exist in organizations. However, calculations seem so dispersed in economic organizations that it becomes meaningless to speak of centres. Rather the focus should be on the dispersed calculations. In a similar way, Quattrone and Hopper (2005) find that the matrix organization of centres of excellence and financial targets in their study of ERP system implementation created an 'a-centred' organization. The authors find that there was no longer a centre or a series of centres of excellence that would allow for action at a distance, which in turn led to disorder in the organization. In a subsequent study, Quattrone and Hopper (2006) find that multiple and changing centres of calculation emerged during the customization of SAP technology in implementation processes and call for further research on how some inscriptions in a network of multiple centres of calculation gain more credibility than others, rather than focussing on closed systems of action at a distance (p. 243).

This thesis presents IFRS as an actor in the organization. In doing so, the thesis is in accordance with research that argues for the importance of accounting systems and inscriptions in the enabling of action at a distance, as well as with the questioning of the possibly problematic enactment of such actions in the local setting. The power of centres of calculation may be frail through the lack of allies, but also because of competing centres of calculation. This thesis aims to contribute to the literature by extending the traces taken into account when following the number (Vollmer et al., 2009). By taking financial accounting notions of value into account, questions of how multiple centres come to life together in an organization and how they can become powerful at times and weak at others through their associations become the focal point.

2.2.5 Summary

The different research domains presented above give insight to the many facets that gain importance when investigating IFRS in their relation to organizations. When moving away from the perception of financial accounting as faithful representation in a simple referent-reference relationship, not only the translation of standards into the organizational realm, but also their interrelation with operations management are of interest.

Overall, this thesis aims to contribute to prior accounting literature in the wider context of implementation by exploring the links between financial and management accounting and their constitutive roles in the organization, prolonging the traces of the number across a-priori boundaries within and around the organization. The study contributes to existing research by taking up the complexities, efforts and dilemmas related to the translation of IFRS into a globally acting, decentralized organization and the activity of the

standards in the local setting. What authors previously have left relatively open as 'implementation problems', is taken up in detail by focussing on the role of systems integration and the dilemmas created for operations management.

Furthermore, this thesis adds complexity to the endeavour of creating accounting numbers that can circulate by extending the traces of value to include different disciplines of accounting and arenas of calculative practice. This study, thus, takes up the idea of potential dilemmas faced by numbers travelling out of the centre into the local context, but also relates to recent research on the dilemmas of integrating the different ambitions of the number.

While financial accountants can learn from management accounting research with respect to the constitutive role of accounting standards in organizations, management accounting scholars can learn by taking financial accounting standards as an actor seriously. New dilemmas and conflicts arise in the tension between differing ambitions of the number.

2.3 Actor-network theory: a theory of translation

This study is not a philosophical endeavour and therefore this section, rather than offering a firm reconstruction of actor-network theory in all its different varieties and scopes, presents the key concepts and elements of the theory that inform this study.

Actor-network-theory (ANT), the theory of translation and associations, in particular the works of Callon and Latour (Callon, 1986; Callon & Latour, 1981; Latour, 1986a, 1986b, 1987, 1999, 2005), offers a framework well suited to study the production and circulation of calculations. ANT shifts the focus from a priori structures to the enactment and coming about of power, where the 'token' is carried by many and can be mediated and transformed every step of its way (Latour, 1986a). Chua (1995) presents three reasons that make ANT particularly suited to studying the fabrication of accounting knowledge that mirror the motivation for such an approach in the study at hand. Firstly, the introduction of new accounting notions of value parallels scientific work in the sense that new accounting categories may challenge existing structures, proposing different ways to sum up the faithful records that make up the organization. Much like in scientific dispute, legitimacy and relevance have to be established in negotiations and trials of strength among many different actors. Secondly, instead of separating different accounting disciplines that might dominate each other, or simply accepting one calculative practice as more reliable or more legitimate because it represents 'reality' more faithfully than another, the sociology of translation puts the emphasis on the construction of reality and the fact-building actors and mechanisms that make references of the world objective. Finally, ANT promotes the role of non-

human actors, their agency and persuasive power in the construction and stabilization of networks.

ANT introduces the concept of a star-shaped web of mediators (Latour, 2005) which makes it possible to consider calculative practices as distributed. It also makes it possible to understand IFRS as an actor standing on top of other calculations (Callon & Latour, 1981), commanding a network that organizes and mediates the organization through a centre of calculation into which distributed references circulate (Latour, 1999) and become mobile inscriptions (Latour, 1986b; Robson, 1992) which may flow back into and mediate various other organizational activities. Moreover, the four moments of translation (Callon, 1986) help to entangle the different steps and techniques mobilized in order to carry IFRS into the organization and to see the different trials of strength that mediated what *integration* could be or become. At the heart of this thesis stands the question of how IFRS act at a distance in a local setting, within a group of companies, their reporting, decision making and control practices. Deciding for an ANT approach helps to put the focus on the relationships between entities. The power to influence others, then, becomes something in the making, something that is not given or connected to only one source, something that requires efforts of persuasion and associations with other entities. ANT therefore provides a theoretical basis that enables the analysis of accounting phenomena without framing a priori distinctions in the form of institutions and power structures. Power is not something that can be possessed, it is an outcome of negotiation and mediation by all the actors involved that grant power and energy to the temporal stability of elements and structures (Latour, 1986a). From an ANT perspective, summarizing records may create distinctions rather than being a consequence of them.

> Th[e] role of the bureaucrat qua scientist qua writer and reader, is always misunderstood because we take for granted that there exist, somewhere in society, macro-actors that naturally dominate the scene: Corporation, State, Productive Forces, Cultures, Imperialisms, "Mentalités", etc. Once accepted, these large entities are then used to explain (or to not explain) "cognitive" aspects of science and technology. The problem is that these entities could not exist at all without the construction of long networks in which numerous faithful records circulate in both directions, records which are, in turn, summarized and displayed to convince. A "state", a "corporation", a "culture", an "economy" are the result of a punctualization process that obtains a few indicators out of many traces. In order to exist these entities have to be summed up somewhere.
>
> Latour (1986b, pp. 28-29)

Bruno Latour's famous point is that calculations make up the entities to which it is possible to give roles. The process of calculating is one of giving presence to entities. In Latour's analysis summing up faithful records helps explain how a corporation exists. Accounting information is a strong reference that makes up a significant part of such faithful records (Chua, 1995; Robson,

1991, 1992). Faithful records are summarized in a centre of calculation which not only organizes traces from the places of the firm thus creating boundaries; it also enables the emergence of power, of action at a distance, through which entities such as corporations and states intervene. It is useful to postpone too strong a priori separations between domains of accounting activity in order to investigate how calculative practices are parts of, or are even able to influence the making of, distinctions and boundaries. How is IFRS able to facilitate the summing up of faithful records that helps to explain how the corporation exists? How is IFRS able to mediate, alter and transform, practices in the organization and, thus, to act in the local setting?

> What is an 'actor'? Any element which bends space around itself, makes other elements depend upon itself and translates their will into a language of its own. An actor makes changes in the set of elements and concepts habitually used to describe the social and the natural worlds. By stating what belongs to the past, and of what the future consists, by defining what comes before and what comes after, by building up balance sheets, by drawing up chronologies, it imposes its own space and time. It defines space and its organization, sizes and their measures, values and standards, the stakes and rules of the game - the very existence of the game itself.
>
> Callon & Latour (1981, p. 286)

Structure therefore is not something given in a pre-existing stable form. ANT renders the world flat (Latour, 2005). Structures and hierarchies, micro and macro actors, are the outcome of mediation, negotiation and translation of diverging interests. According to Latour (2005), entities become and are defined by their associations: "To be a realistic whole is not an undisputed starting point but the provisional achievement of a composite assemblage" (p. 208) consisting of acting humans and non-humans. It "is what is made to act by a large star-shaped web of mediators flowing in and out of it. It is made to exist by its many ties: attachments are first, actors are second" (ibid., p. 217). Macro actors, like institutions, organizations, social classes etc., exist in the world; however, their size, boundaries and influence are defined by the network they can bind to themselves, by their association with other actors. To rise as a macro actor, the entities have to establish themselves and what they stand for as uncontested, building 'black boxes' (Latour, 1987), i.e., undisputed facts.

Calculative practices, thus, can be analysed as the set of associations made possible by mediations that "transform, translate, distort, and modify the meaning or the elements they are supposed to carry" (ibid., p. 39). ANT in this study therefore is a way of following IFRS on its way into the organization and its relation to existing calculative practices, without the borders of common distinctions between global and local or financial accounting and management accounting. Instead, the investigation renders the world flat, trying to find how IFRS creates a role or is assigned a role within a network of actors and how this

network stands in relation to other networks around calculative practices in the organization.

The following sections present three aspects of actor-network theory that are central to the analysis and discussion of the empirical material in the case study: translation, centres of calculation and circulating reference.

2.3.1 The four moments of translation

To gain a role as an actor within organizations, IFRS need to relate to existing practices. To be able to command the summing up of the organization requires them to convince other actors, to translate diverging interests to share their own.

> By translation we understand all the negotiations, intrigues, calculations, acts of persuasion and violence, thanks to which an actor or force takes, or causes to be conferred on itself, authority to speak or act on behalf of another actor or force.
>
> Callon & Latour (1981, p. 279)

In a translation process, the aim is to displace and translate interests of different actors in order to carry a network, a problematization, and to silence objection. The stability and durability of such networks depends on the actor's ability to create 'facts' that are no longer challenged, by 'black boxing' (Latour, 1987) what was once a matter of concern. In the strongest form, the different actors are bound together in a whole that can only work together.

> The simplest means of transforming the juxtaposed set of allies into a whole that acts as one is to tie the assembled forces *to one another*, that is, to build a **machine**. A machine, as its name implies, is first of all, a machination, a stratagem, a kind of cunning, where borrowed forces keep one another in check so that none can fly apart from the group. This makes a machine different from a tool which is a single element held *directly* in the hand of a man or a woman. [Emphasis in original]
>
> Latour (1987, pp. 128-129)

When bound in a machine, the actor on top of the network becomes an *obligatory passage point* (Callon, 1986, pp. 7-8) for those bound to the network. An obligatory passage point (OPP) channels other actors' roles, activities and interests by defining a problem and proposing a solution / an interest that is crucial to reach any other aim an actor might have. All activities and ambitions are channelled through this point to foster the contenders' position. Thus, not only the number of allies is relevant in the creation of structure and power relations, but also their 'acting as one' in an unchallenged black box of fact (Latour, 1987, p. 131). Only through the actions of many can the network remain stable through space and time. Contestants' interests need to be translated or silenced in a never ceasing contest of strengths. Furthermore, particular to ANT in this respect, there is no distinction made between human

and non-human actors; the nature of the ally is not important to the network. What matters is only the strength the association brings to the network in the form of binding other interests. The strength of the association is created by the problematization that defines and translates the interests at stake. To create unchallenged facts, human actors need to be interested and enrolled in the network and non-human actors need to be interested and enrolled in order to keep the human allies (ibid., 132). Callon (1986) exemplifies the importance and power of non-human actors with a story of failure, where a key ally – the scallops of St. Brieuc Bay – refused to enter the collectors. Their objection rendered the entire research experiment a failure because the researchers were no longer able to convince the other allies of their scientific findings. In the context of the study at hand, IFRS are a potentially powerful actor and their role and activity in the organization are investigated in the analysis and discussion.

Callon (1986) further defines four moments of translation, "during which the identity of actors, the possibility of interaction and the margins of manoeuvre are negotiated and delimited." (ibid., p. 203) The boundaries between these moments are blurred and in the context of this study they are merged into three stages as to better fit the stages of translation found in the group: problematization, interessement and enrolment, and mobilization.

Problematization: During this phase, something – an order, a state of being, a relation – is problematized. The problematization not only poses questions or challenges existing order, it also identifies the roles of different actors; their interests and potential concerns are established in a particular way (excluding alternative ways). In the case group, the state of being in relation to accounting practices was problematized. A previously strong separation between operations management and financial accounting was to be replaced by a state of integration or 'harmonization'[7] in order to gain comparability and legitimacy of accounting information. Organizational internal accounting practices like management reporting and management control were now meant to be closely connected to statutory accounting practices. Furthermore, the proposed new way was intended to go beyond a systems-integration of reports, closely linking operations management practices with financial accounting standards. By being created as the only way of providing high quality accounting information and comparability, IFRS established themselves as an OPP within this problematization; an indispensable means to bringing business and financial accounting close enough to become integrated.

Interessement and enrolment: During the process of problematization, different actors and their roles in the network became defined. Interessement, then, describes the actions taken to 'lock' the actors into their designated roles so as to create stability. Actors may become allies of the network, submitting themselves and their interests to the problematization proposed, or they may

[7] The term 'harmonized' is an emic term found in the organization and also in earlier work within the fields of auditing and consulting.

object by defining their interests, goals and motivations otherwise. In such 'trials of strength' solidity and stability are defined or destroyed. To make IFRS indispensable for accounting practice, and, to thereby create a role for the standards within the organization that is strong enough to act locally, the standards need to become an OPP. To win the trials of strength the network therefore has to find ways to bind their allies in their designated roles into the network, by translating rival interests into the interests of the network, or by cutting or weakening any other possible relationships between the allies and elements outside of the network (Callon, 1986, p. 208).

While interessement describes the actions taken to bind allies, enrolment describes the actual alliance, the translation of interests, the negotiations and trials of strength accompanying it. The actors become enrolled in their designated roles, i.e., enrolment is the outcome of a successful interessement where the actors' interests are displaced and translated in order to carry and strengthen the network. For the purpose of analysis, the actions taken to convince the allies and to displace and translate the diverging interests and the response of the actors in terms of trials and enrolment are taken together, because in the group these moments overlapped, occurring not in isolation or in a sequence but rather in interplay.

Mobilization: The translation of interests is the focus of interessement and enrolment. Only a limited number of actors can be included in the trials of strength that shape and re-shape the network. Each of these actors in turn can be understood as a star-shaped entity, attempting to speak for the other elements in their network. To mobilize therefore is about reproducing what is established by silencing objection and binding those you attempt to speak for. In the case group, IFRS first enrolled the group HQ and the divisions. Those, in turn, were understood to be spokespersons for all the operating units that were part of the group. Within the companies, the CFOs were then understood to speak for the accountants (financial accountants and controllers) and so forth.

When the whole network is mobilized, a temporary stability can be reached. However, the network may be contested at all times, leaving the fragile network and all of its actors with a never ceasing effort to stay aligned.

2.3.2 Centres of calculation and action at a distance

How can we act upon entities, places or events remote to us? How can entities claim dominance over other entities? In ANT the knowledge of distant events, entities and places allows the construction of associations that enable action at a distance. Knowledge is gained by drawing together inscriptions from distant places that render the world known to us. Inscriptions are the transformations of the world that enable us to interest others, to persuade and translate.

> [Inscriptions are] all types of transformations through which an entity becomes materialized into a sign, an archive, a document, a piece of paper, a trace.
>
> Latour (1999, p. 306)

Accounting information in the form of numbers, lists, tables and writings are a particularly convincing form of inscriptions, because it fulfils three key features of inscriptions that enable long distance control: stability, mobility and combinability (Robson, 1992). Inscriptions are mobile in that they can be carried through time and space by different actors, remaining stable and consistent in their form and easily reproduced by others. Unlike an actual accounting transaction such as a business combination, a due diligence report can cross many hands and can easily be sent by mail or printed to serve as a reference at times and spaces distant from the actual organization that is to be bought or sold. What makes calculations particularly strong references is their high degree of combinability and superimposability. Metrics can superimpose and combine entities from different scales and natures, rendering them comparable and mobile. For the study of actor-networks, inscriptions which are of interest are those that help to win and keep allies for the network, i.e., the focus becomes channelled in the ways and mechanisms which create and mobilize inscriptions.

> It is not only because they look exclusively at maps, account books, drawings, legal texts and files, that cartographers, merchants, engineers, jurists and civil servants get the edge on all the others. It is because all these inscriptions can be superimposed, reshuffled, recombined, and summarized, and that totally new phenomena emerge, hidden from other people from whom all these inscriptions have been exacted.
>
> Latour (1986b, p. 32)

Latour (1999) uses the concept of the "*centre of calculation*" to refer to specific sites, laboratories, files, databanks and so forth (p. 304) that are able to draw together, combine and superimpose inscriptions from distributed sources in order to gain knowledge that enables the centre to act upon other entities, by rendering close what is remote. Latour exemplifies this in his description of captain Lapérouse's exploration of an unknown part of the East Pacific in 1787. Latour (1987) explains how knowledge in the centre is created through cycles of accumulation of cascades of inscriptions that render the remote and unfamiliar controllable and able to be acted upon at a distance (p. 215ff).

Louis XVI of Versailles had ordered Lapérouse to draw a complete map of the Pacific, because at the time there was fierce dispute about the accuracy and credibility of existing travel books. Carrying an older travel book, Lapérouse's journey led to an area where existing cartography was unable to answer whether the land was a peninsula or an island. Two ships had been commissioned and equipped with expensive up-to-date material and specialists to ensure that every new detection was expertly documented and brought back to Versailles to enhance the knowledge of the area. Lapérouse detected that the native savages

were knowledgeable about their area and certain that the land was an island. They were even able to draw maps of the island in the sand and copy the drawing into Lapérouse's diaries. After inspecting the island himself, Lapérouse considered the drawings reliable and sent them back to Versailles together with his other material collected over the two year journey. The local knowledge became global knowledge through the inscriptions. What is important is what is brought back.

> The first time we encounter some event, we do not know it; we start knowing something when it is at least the *second time* we encounter it, that is, when it is familiar to us. [Emphasis in original]
>
> Latour (1987, p. 219)

Defining knowledge as familiarity with events, places and people leaves the foreigner in the weakest position. The natives in that case would be more knowledgeable than Lapérouse. Latour therefore continues:

> As we see, what we call 'knowledge' cannot be defined without understanding what *gaining* knowledge means. In other words, 'knowledge' is not something that could be described by itself or by opposition to 'ignorance' or to 'belief', but only by considering a whole cycle of accumulation: how to bring things back to a place for someone to see it for the first time so that others might be sent again to bring other things back. How to be familiar with things, people and events, which are *distant*. [Emphasis in original]
>
> Latour (1987, p. 220)

The accumulation of knowledge by drawing together inscriptions from distant times and spaces creates knowledge in the centre that enables it to influence and mediate the interests of others. Cycles of accumulation facilitate familiarity and create a centre that can act at a distance. All the traces enter a centre of calculation to develop the calculation of impairment values: "Nothing is unfamiliar, infinite, gigantic or far away in these centres that cumulate traces; quite the opposite, they cumulate so many traces so that everything can become familiar, finite, nearby and handy" (Latour, 1987, p. 230). Centres of calculation accumulate knowledge via calculative practices which develop and summarize the series of substitutes for the world, and then at the end of this process, accounting information emerges as the amplification that takes the place for the numerous activities that calculative practices have summarized (Robson, 1992). Although inscriptions in themselves might be powerless and meaningless, their combination and mobilization by the centre creates the strength that is needed to translate interests.

> If everything goes well it begins to look as if the black boxes were effortlessly gliding through space as a result of their own impetus, that they were becoming durable by their own inner strength. In the end, if everything goes really well, it seems as if there are facts and machines spreading through minds, factories and

> households, slowed only in a handful of far-flung countries and by a few dimwits.
>
> Latour (1987, p. 132)

In this study, IFRS are presented as an actor that arises out of a network that spans across the organization and into the outside world. If everything goes to plan, the group HQ present a centre of calculation that becomes so closely linked to IFRS that it creates the standards as an OPP; IFRS, in turn, come out on top of this centre, commanding the organization as an unchallenged force. Then, the standards are able to define the faithful records that sum up the organization, enabling it to define performance and success. Impairment testing for example becomes an unchallenged part of managerial practice and their responding numbers replace prior existing practices and notions of value. As the analysis will show, IFRS remains both strong and weak at the same time and enmeshes and relates to competing practices rather than becoming *the* centre of calculation.

2.3.3 Circulating reference

The previous section describes how centres of calculation become powerful through collecting, combining and superimposing cascades of inscriptions. A particularly important part of this ability to act at a distance, dominating other actors, is the mobilization of inscriptions. The references that strengthen the centre need to circulate in and out of it, representing 'facts', 'truth', 'reality', carried by many different actors in their stable, immutable form. From the sociology of translation perspective, any 'faithful' transmission is rare in the sense that when moving from matter (organizational substance) to form (inscriptions), the idea or 'reality' that is carried becomes interpreted and translated in its mobilization. This separates the model of diffusion from the model of translation:

> This model of diffusion may be contrasted with another, that of the model of translation. According to the latter, the spread in time and space of anything – claims, orders, artefacts, goods – is in the hands of people; each of these people may act in many different ways, letting the token drop, or modifying it, or deflecting it, or betraying it, or adding to it, or appropriating it. The faithful transmission of, for instance, an order by a large number of people is a rarity in such a model and if it occurs it requires explanation.
>
> Latour (1986a, p. 267)

Action at a distance is therefore by no means a simple affair and some inscriptions will be stronger than others in persuading dissidents. To become mobile and immutable inscriptions, actors need to believe in their legitimacy, they need to become facts. Latour (1999) proposes an account of how scientific facts can come about through a series of transformations between matter and

form (p. 24-80). He describes in detail the work of scientists in the Amazon forest investigating the soil at the border of the savannah and the rainforest to find out whether the rainforest is advancing towards or retreating from the savannah. The aim of the project is to bring the findings into scientific writing and to make them public to the academic audience. The inscriptions produced along the way and their legitimacy in the scientific realm, thus, are the centre of attention. Latour follows the researchers into the forest; follows their practices of mapping, tagging, colouring and categorizing that ultimately lead to inscriptions in the form of diagrams and graphs that can be incorporated into text and circulated in the scientific community. However, not any inscription will be able to circulate with scientific rigour.

Latour shows that in relation to the acceptance of the inscription as 'true' or 'objective' there is no concern about the distance between the world and its representation, but rather the world is substituted by inscriptions which stand in its place through a series of transformations. Text, visualizations, calculations or diagrams are not an isomorphic representation of the world but the end of successive transformations that make up the reference:

> It [a diagram] is not realistic; it does not resemble anything. It does more than resemble. It takes the place of the original situation (…). Yet we cannot divorce this diagram from this series of transformations. In isolation, it would have no further meaning. It replaces without replacing anything. It summarizes without being able to substitute completely for what it has gathered. It is a strange transversal object, an alignment operator, truthful only on condition that it allows for passage between what precedes and what follows.
>
> Latour (1999), p. 67

Latour terms this ability to transform the world into an inscription that can travel across time and space "*circulating reference*". Circulating reference quickly leaves the original world; it is not possible and not meaningful to carry the forest. Instead, diagrams take its place through a series of transformations from soil to text and numbers. Reality is lost immediately, and in its place inscriptions emerge which associate with new entities when they end up in centres of calculation (Latour 1999, p. 72). Inscriptions, in their ability to be mobile, stable and combinable, assist the scientists to create circulating reference. With each step of transformation, the scientists reduce the heterogeneity of the world to comparable, standardized and generalizable inscriptions and visualizations re-presented in text. The world gets lost, but at the same time the inscriptions build the powerful basis of amplification of knowledge about the world. There is gain and loss at each stage of the chain.

Vital to the strength of the reference, however, is that the chain of transformation between the world and the sign must remain reversible.

> The succession of stages must be traceable, allowing for travel in both directions. If the chain is interrupted at any point, it ceases to transport truth – ceases, that is, to produce, to construct, to trace, and to conduct it. *The word "reference" designates the quality of the chain in its entirety*, and no longer *adequatio rei et intellectus*. Truth-value *circulates* here like electricity through a wire, so long as this circuit is not interrupted. [Emphasis in original]
>
> Latour (1999, p. 69)

The inscriptions and devices that are produced have to enable sceptics to move back to its source. Only in such a way can the reference be carried further and amplified to become and stay a fact. Only with circulating reference will there be enrolment of the actors and only with enrolment is there mobilization of the network that enables action at a distance. In this thesis, the calculative practices in the organization and their expressions in tables, text, graphs and other visualizations are understood as circulating references. To what extent are IFRS able to define the faithful records that sum up the organization? To take the concept of circulating reference seriously would mean linking each of the transformations back to the organizational substance, the transactions in the day-to-day operational practice. However, fair value accounting brings a dilemma to Latour's claim because what is substituted with numbers is not yet matter. The future is to be substituted and a chain of transformation therefore is impossible. While focussing on the inscriptions mobilized in translation processes helps to move away from a priori distinctions and social structures, Latour's strong claim that these inscriptions must build a reversible chain might be taking it too far. This claim that inscriptions can only perform as circulating reference if the chain of transformation is reversible has also been challenged in other studies (Dambrin & Robson, 2011; Justesen & Mouritsen, 2009). The case presented here contributes to the discussion by engaging with the relationship between financial and management accounting, leaving the organization in a tension field between different accounting inscriptions that potentially compete with each other. The material presented in the thesis therefore can contribute to actor-network theory by exploring and exemplifying how a strong reference can come about despite interrupted chains of transformation.

3 The case study: methodology, method and empirical site

Chapter 2 outlined the theoretical basis for the empirical investigations. This chapter takes up the case study design, discusses the methods of material collection and provides information on how the material was analysed. The chapter contains a general description of the case group and why it was chosen as a case study for this thesis. More detailed information in relation to the accounting system and other characteristics of the organization are included in the respective analysis chapters whenever such information is relevant for the reader's understanding.

3.1 The case study design

The foundations for this study were already laid during my work as an accounting consultant. Many times during my work I had the sense that the interpretation of accounting standards was far from presenting something that was simply a given. When introducing IFRS into the different German companies, one of my tasks was to analyse the different standards to see how they would affect the companies my colleagues and I were working with. In some cases the standards posed rather clearly what calculative practice was to be used, but it was very difficult to do so in practice (e.g., financial instruments accounting or goodwill impairment testing), while in other cases the standards were rather open about how to calculate the different figures (e.g., capitalization of internally generated intangible assets). Many assignments were related to the preparation of first-time adoption financial accounts, i.e., an opening balance sheet and the first annual report for the group, transferring the individual company's accounts to IFRS. In larger companies we worked in large teams and at smaller jobs I could work alone or together with a more experienced manager. At that time, I was in my mid-twenties and on some of the projects I personally had to communicate with top level managers of the companies to tell them how to adjust their calculations. While these people had been working with accounting numbers for 20, 30 or 40 years, I had just started immediately following university. Nevertheless, my interpretations and written analysis were seldom challenged. This was not because my interpretation was the only possible solution. In moments of doubt, I would call my senior manager or even the expert team in the HQ to check that my understanding of the standards was *right*. On very few occasions did this actually lead to a change in

interpretation. Commonly the answer would be "this sounds logical" or "yes, that seems ok". The respect from the clients for my work and the work of my colleagues did not come from our personal experience, but rather from the experience of my employing company as a whole. Essentially, what was *correct* was an interplay between the standard texts, my interpretation of the text, our discussions in the consulting team and with the experts of our HQ as well as that of the client and the textual accounts of our interpretations. Because of these interpretations, reality was created, systems were adjusted, and calculations were made and reported to the stakeholders. Coming to academia as a doctoral student, frankly, I was stunned to see that financial accountants seemed to consider financial accounting information as a given. Statistical analysis of financial accounting information is based on databases that collect the information from different annual reports into one single frame. Considering that companies determine their positions differently, particularly when dealing with different accounting standards like US-GAAP and IFRS, these databases create a reality of their own that is analysed.

From this, my research interest emerged: to study IFRS as something that is active in the organizations, but also something that is shaped by other activities. I decided on a single group with several subsidiaries as my field study. My research design could be described as an ethnographically inspired case study (Samuelsson, 2002). The time I could spend in the organization was not long enough to claim that it was longitudinal in the sense of ethnographic studies, however, I spent almost three month on site, split over two phases in order to gain some of the benefits from ethnographic studies.

> So what do ethnography of knowledge practices tell us? The answer is that ethnography lets us see the messiness of practice. It looks behind the official accounts of method (which are often clean and reassuring) to try to understand the often ragged ways in which knowledge is produced in research.
>
> Law (2004, p. 18)

Law writes about ethnographic studies in scientific research, but his argument also holds in the context of this thesis. Although I, as a researcher, did not have the opportunity of a longitudinal study covering several years, or of 'going native', I tried to follow Hammersley and Atkinson's (2007) understanding of what ethnographers do: I aimed to participate in the organization, in the daily practices over the time that was given to me, watching, listening and asking questions in informal talks as well as more formal interviews. In this way, I was able to indulge in the "messiness" that helped me to produce rich accounts. I decided to have a single case study for two reasons: to be able to spend enough time with the company would only be possible when focussing on one group; and it was important for me to stay within one group that, from a financial accounting perspective, was bound to have one frame of reference in relation to the IFRS, because their group accounts would require consistent IFRS interpretation throughout the group.

This focus helped to initially exclude the differences that arise in different groups because of a different use of for example choices in the standards, and instead, it allowed me to consider the differences within a theoretically unified frame. Potentially, this would bring out more of the trials of strength in a seemingly unified group. Strictly speaking, it was not just one company I worked with, because I had the chance to not only investigate the group HQ but also several of their subsidiaries. I therefore had the chance to draw comparisons and look at the interaction of different companies, people and systems, while at the same time having the benefit of concentrating my time and effort on one group.

3.2 Selection of the case and the empirical setting

The case study was planned in detail at the end of 2009. The idea was to find a publicly listed group that would prepare their group accounts in accordance with IFRS. Ideally this group should be located in Germany, because I felt that my German mother tongue would help me to extract even deeper meanings in what people would tell me and because Germany has been used as an interesting case for accounting research by many prior studies (see chapter 2 and 4). In addition, I put my focus on media companies for two reasons: firstly, the media industry is a fertile ground to study phenomena related to IFRS. Relying mainly on intangible assets as value drivers, valuing intangible assets, acquired or internally generated, becomes more important than in most other industries and their initial as well as subsequent valuation under IFRS places complex requirements on the companies (Küting & Zwirner, 2004, 2006). Furthermore, a continuous integration of different media, internet, computing, television, telephone etc., pushes the industry towards a multi-media industry where consumers expect the companies to provide many different kinds of services that separate organizations will be unable to fulfil. Such a converging media market place (Chan-Olmsted, 2006) gives rise to mergers and acquisitions as one of the key strategies for growth, promoting complex accounting techniques around PPA and goodwill accounting. Secondly, being affiliated to a research centre focussed on interdisciplinary research in the media industry, I could get valuable insights into the industry through my colleagues who helped me to find and appropriately contact a suitable case. Several large media corporations were considered, but I contacted only the favourite group, which was kind enough to grant me access almost immediately. I contacted the organization via its vice head of the group accounting unit at the group HQ. The initial contact was by E-mail in which I provided my curriculum vitae as well as a one page description of my intended

project and the access that would be necessary to accomplish the aims of the study. In June 2010 the group agreed to the research project.

The group is a large worldwide active corporation, listed on a European stock exchange. The group HQ are located in Germany and three of the five divisions have their HQ in Germany as well. German accounting tradition was therefore bound to have a role in the relationships between financial accounting and management accounting. At the time of my research, the group had had a long standing history with IFRS accounting (first time adoption in 2002) and a diversified business model; it had goodwill assets of 32% and other intangible assets amounting to 4% of total assets. Surprisingly, in relation to total assets the amount of intangible assets was rather small; this could be explained by the very diverse sectors in which the group was active. The print industry, for example, was largely built on tangible assets. However, as expected, business combinations were an important issue throughout the group. PPAs and impairment testing therefore emerged as a key focus of the study. It is important to mention here that the group was very decentralized in its structure. Investment decisions were bound within a centralized financing system, however, all initiations of investments as well as the assessments and the writing of investment applications was carried out by the operations, i.e., low levels of hierarchy were included in the decision making around investments, which made this group an ideal case for studying the role of IFRS over and above the group's HQ.

All group divisions and companies used the same reporting and consolidation IT program from which all reports were drawn for both management reporting and statutory reporting. IFRS notations and labels built the set of accounts which was expanded by additional accounts required for controlling purposes in the divisions, e.g., additional separations of key line items for specific cost accounts. For management purposes, the separate organizational units used SAP systems that automated management reporting and were thus integrated within the general IT landscape. The research did not focus on the interfaces between local SAP systems and the reporting programme. However, through interviews at group and divisional HQ levels and with the individual organizational units it was possible to see how the key line items in the financial statements were used in the separate companies by means of system integration. Except for one division,[8] all operational units used the same definitions of key line items as revenue, depreciation and net profit.

[8] The unit that maintained slight differences in the definition of concepts was division D, an organization that itself was listed on a European stock exchange, producing group accounts that subsequently were integrated into the group accounts of the case group. The integration of this unit into the overall group was not completed during the time of my stay. One of the reasons for this was that the acquisition of control over this unit was quite recent. In addition, as will be discussed later in the thesis, this division was a particularly strong actor, because it acted as gatekeeper for the consolidation and reporting system. Nevertheless, from an auditing perspective, the differences in definitions were considered immaterial and did not lead to classified auditing statements.

This implies a high degree of system integration. Individual companies reported to their divisions for management reporting purposes. Divisions consolidated internal reports and then reported to the group HQ for group consolidation. For statutory reporting purposes, the individual companies reported directly to the group HQ to be consolidated at group level. Internal financial reports and statutory reports were provided monthly and quarterly respectively. As a group HQ requirement, all quarterly reports had to be matched so that the internally and the externally reported numbers had to mirror each other. Thus, the case group was ideally suited to the study of integration and the role of IFRS in the organizational realm.

3.3 Collecting the empirical material

To collect the empirical material I was on site at the group HQ, several divisional HQs and companies for two periods: two months during autumn 2010 (30 days) and one month during spring 2011 (18 days), amounting to 48 days in total. Prior to these intense research phases I had the opportunity to take part in a three day IFRS conference held by the group HQ for the accountants and CFOs of their subsidiaries. During these days I was introduced to the participants as a PhD student working with the group, which helped me immensely to gain access not only to the organization, but also to the individual people.

The collection consisted of observations, internal documents provided to me by the organization, externally available information such as annual reports, website statements and so forth, diaries that I wrote during my stay in the organization, and interviews with managers and accounting representatives from different companies as well as staff members from other parts of the group HQ including the strategy and tax sections. A detailed list of all collected material is provided in appendix 2. I was located at group HQ for five days a week, with my own office, sharing meetings, lunch breaks, and other company activities. In both phases, the research interest was in the creation of values for reporting purposes and creating value though management control. Overall, I interviewed 36 employees in 41 interviews with a length ranging from 34 to 229 minutes (average length: 87 minutes) all of which were audiotaped and transcribed. During the interviews, I tried to make use of the idea of the 'analytical interview' (Kreiner & Mouritsen, 2005) to the largest possible extent. This means that during the interviews I tried to engage my respondent in the solution of dilemmas but also in the construction of new dilemmas in relation to existing accounting practices. In practice, this meant being aware of the answers given by the respondents and trying to follow up their logic with a refined question that linked this particular thought to a dilemma, or showing a different logic, or highlighting absent concerns. It was not possible to achieve this aim at all times; the transcriptions show that in the beginning of the

interviews it was more present than in the end when both the researcher and the respondent became tired. Nevertheless, aiming to expose new dilemmas during every interview helped me generate very rich interviews that served as a cornerstone of my later theorizing.

The group and all the people I had contact with were very generous with the time they allocated to me and the openness of their answers to my questions during the interviews, meetings, lunch breaks or other social events. I made close contact with the people working in the accounting unit of the group HQ not only in the professional realm, but also on a more private basis sharing lunches and participating in employee gymnastics twice a week. I was invited to accompany the accounting unit to after work events and also to the annual Christmas party. Furthermore, I must admit that I was pregnant during the time of data collection which, I feel, contributed considerably to the goodwill I received. In my view it convinced people that I could be trusted. I also believe that my background as an ex-consultant contributed to my respectability.

In addition, I was lucky to be introduced to the group by my main contact, who was well connected and very respected in the group not only at HQ but also by the accountants of the companies I worked with. In this respect he was an excellent gatekeeper, because he was well connected and at the same time personally interested in my research endeavour. Although this person mainly decided who my interview partners would be, which can entail a great danger of becoming controlled or trapped in the research (Hammersley & Atkinson, 2007), I was free to add more names to the list and he aimed to include representatives from the different divisions, operational units and departments at group HQ. Only in one instance I felt that I wanted to add a name to the list and that was not considered a problem.

There were, however, limits to my access. Divisions outside of Germany were harder to access for me because of the travelling cost. I therefore contacted the representatives of the German part of the two international divisions. Furthermore, originally it was not intended for me to speak to the level above the accounting unit at group HQ. Only after my time in the group, I was granted a short telephone interview with the CFO at group HQ. The content of the interview, however, was less important to my analysis than those conducted on site because there was little room to transfer my questions. Moreover, contact with operational units at lower levels was difficult, especially in respect to managers (accountants were easier to interest). Therefore only three interviews with company CFOs were possible. Nevertheless, I had the chance to speak very openly with everyone I had contact with and the group was also very generous in terms of access to meetings, systems and documents. I had access to the intranet were the group HQ had created an accounting platform gathering all information about accounting and reporting guidelines, standards, performance indicators and reporting systems. I was free to access any accounting related document and on request I was even able to access

budgets and presentations prepared for the board of directors as well as codes of conduct and management guidelines.

With respect to observations, as described above, I was treated almost like an employee of the accounting unit at group HQ. I attended the weekly meetings in the group accounting unit and all IFRS related meetings during the time of my studies. The technique of shadowing (McDonald, 2005) was not put to practice during my observations because my main contact felt uneasy with the idea and because I wanted to be able to connect to different people and spaces during my observations. It transpired to be rather difficult to observe in the beginning. There was no production line to follow, no shared office to sit in. My observations therefore happened during the times were I had the chance to be around people: during meetings, lunches, social events, etc. In addition, I scheduled meetings with people in relation to topics that I wanted to know more about, for example in relation to impairment testing. In these meetings I did not start my audiotape because instead of having an interview, I would ask people to show me what they did in their daily work or explain how they used the tools and systems and so forth.

To summarize my efforts of collecting empirical material I can say that I had the chance to look at the organization from different perspectives in which humans, as well as non-humans in the form of inscriptions and systems, were allowed to speak freely.

3.4 Working with the empirical material

The messiness discovered in ethnographic studies (Law, 2004) is the beauty but also the curse of such a research design because it is reflected in the material collected. The flood of information and collected inscriptions can be daunting at times. To overcome this feeling, I worked with my material from the beginning of the project, throughout the entire time of investigation and afterwards. There is no particular point in time in which I analysed my material; instead I let the empirical case inspire me and my analysis, shifting my interests to become involved in an iteration between theory and practice (Hammersley & Atkinson, 2007). From the start, I had planned for two phases of observation, because I wanted to have time to look at what I had seen and be able to find dilemmas or breakdowns (Alvesson & Kärreman, 2007) that would challenge existing knowledge in IFRS implementation.

For my analysis I used Nvivo 9 technology that enabled me to gather and organize all my material in one place, transformed into text in the case of verbal accounts. The software does not force any particular coding or method of analysis. Rather it enables the researcher to combine, compare and superimpose the inscriptions. It is possible to define categories and to assign different text passages to these categories without losing the original text, which is saved separately. The advantage of interview transcripts is that they remain stable

over time and allow for deep analysis over and over again, according to the changing focus of the analysis with new dilemmas arising. A dialectic interaction between theory and material, between collection and analysis (Hammersley & Atkinson, 2007) is therefore made possible in a much richer way. It also helped me to find those respondents that were most valuable for me in relation to the dilemmas I wanted to investigate further. Defining and re-defining the dilemmas in the study was also fostered by the many other accounts that I had gathered. For example, the documents gathered helped me to get deep insight into the management control package in the organization, which in turn enabled me to challenge statements during the interviews – gaining a better understanding of how IFRS was able to relate to the performance indicators.

After collecting my empirical material I took a pause from research. My son was born two months after my field studies were finished and I went on full time maternity leave for eight months. Despite, or maybe because of, not working actively with my material in that time, I had a very constructive time in which I thought about the different themes, dilemmas and mysteries that I had found during my research. This helped me considerably to take a step back and look with new eyes on what I had seen and heard. Coming back to work I went through all my material again, building categories around the dilemmas that I had identified. I only translated those sections of text into English that I used in the thesis text.

I would like to conclude this section with a reflection upon the quality of my research work. As Quattrone and Hopper (2005) point out, an observer is not independent from the observed. I am part of the inscriptive device in this thesis, creating a textual account of what was observed, based on other inscriptive devices like the reporting system and inscriptions provided to me. By giving a textual account I co-create reality with my object, IFRS and the organization. I was active in this study both in designing the study, deciding who I spoke to and in creating a textual account of the communications and observations. This thesis therefore could be termed a "deplation" (Quattrone & Hopper, 2005, p. 764) being description and explanation in one. In doing so, I aim to challenge taken for granted assumptions such as the separation between financial and management accounting, between standards and managerial control, between representation and creation. Whether this textual account of the phenomenon is persuasive to the reader depends on a judgement of the quality of my standpoint, my interpretation and my transformation of matter into text. In the vein of Latour's circulating reference, I have therefore tried to expose the stages and phases this work went through, to bring light to the transformations that have emerged. During the study and analysis, I tried to break out of my "hinterland" (Law, 2004), in the sense that I tried to look at the phenomenon from different perspectives in order to be able to stay reflexive about what I was seeing and to allow what I was seeing to challenge my existing knowledge (Alvesson & Sköldberg, 2000). I did so by separating my study into

two phases, giving me the time to reflect on the first phase and then going back to discuss my views with the respondents in the second phase as well as trying to create new dilemmas together with the respondents in analytical interviews and through my observations. Furthermore, I have engaged in discussions with my main contact at the group HQ during and after the field study. I have also engaged in on-going discussions with my research colleagues, my supervisor and other researchers at conferences, seminars and research groups, in order to be able to see different standpoints that would help me to capture the multiplicity of things (Latour, 2005). In this textual account, I have aimed to be open about what I did and to include many examples of statements that would enable the reader to make up her/his own mind regarding my understandings of the phenomenon. Finally, qualitative case studies rely on analytical generalization (Yin, 2003) where the analysis of phenomena is taken out of the messiness and into a theoretical generalization by understanding the mechanisms underlying behaviour or in the ANT sense the mediations of the network to create and maintain structure. By linking my findings to theory, I aim to challenge existing theory, and try to amend and complement it, thus, generalizing from particular empirical instances.

4 Integration work

This chapter is concerned with the question of *how IFRS are translated into the organization*. What were the links and associations, the mediations in place that created a role for IFRS in the case group above and beyond external reporting necessities? Traditionally, IFRS implementation studies focus on the financial reports publicly available and, thus, are concerned with the outcomes of the transition to IFRS rather than the work related to bringing IFRS into the organizational realm (see section 2.2.1). This chapter instead is concerned with the ways in which IFRS moved into the organization, and the ways in which the importance of financial accounting notions of value was created in linking financial and management accounting practices. Following this analysis, chapters 5 and 6 engage with the mobilization of IFRS and the strong link between financial and management accounting in the group by taking up two particular calculative practices: goodwill accounting and leasing.

The chapter at hand also serves as a contextualization of the following chapters as it introduces the German context and the role of German accounting culture in more detail, as well as the role of IFRS within the organization. It takes up the idea that an integrated accounting system, i.e., a shared set of accounts for financial and management reporting, was created as something positive and of high value for the group through different actors. A new problematization of accounting arose that placed IFRS as an OPP (obligatory passage point) to establish a strong link between financial accounting standard requirements and operations management, translating diverging interests of the operations to enrol both the financial accounting realm and other allies throughout the organization and across organizational borders to the IFRS project. The empirical material in this chapter is presented and analysed to investigate what role was granted to IFRS and how this role was created for the standards to become active. Callon's (1986) four moments of translation will hereby guide the presentation of the material and its analysis. The chapter concludes with a discussion of the findings and a short conclusion, leading into the following analysis chapters and placing them in the wider context.

4.1 Problematizing integration

To appreciate the importance of a shared accounting system for internal and external accounting practices in this particular setting, this section starts with a look into the time before IFRS. The idea is to bring forward theories as to why an organization would aim to have a close link between financial and

management accounting in the first place. The analysis then moves on to the ways in which group HQ were able to convince other units in the group of this aim.

With the transition to IFRS about eight years ago, both the time before IFRS under German local GAAP and the introduction of IFRS were long before the investigation for this study. The explanations and reasoning therefore build on the memories of the people involved.[9] Additionally, this initial phase of transition to IFRS was part of my work experience as an accounting consultant for IFRS implementations in Germany between 2005 and 2007, which helped me to reflect upon what people told me. Not all the claims contained in the remainder of section 4.1 were manifested during the audiotaped interviews. Instead, talks and comments on the side that I wrote down in my field notes as well as a more general discussion in the German business community that I could follow as a consultant gain importance in this retrospective look.

4.1.1 German accounting roots: a time of separation

Stemming from a code-law tradition,[10] Germany and most other central European accounting practices were, and to a large extent still are, characterized by three properties: firstly, a focus on creditor protection rather than investor value, placing high value on the prudence principle; secondly, a strong link to tax accounting, both producing conservatism[11] in most valuations (Glaum & Mandler, 1997; Haller, 2003); and thirdly, partly stemming from this, a strong

9 From the people I interviewed, to my knowledge, five had been actively involved in the transition to IFRS at group HQ: the head of accounting at group HQ, the head of group accounting at group HQ, the vice head of controlling at group HQ, the head of management reporting in division E (formerly group HQ) and the CFO of OU 1.1 (formerly IFRS expert team at group HQ). Many other respondents had already been working in the organization prior to IFRS in different positions.

10 There are two broad categories of accounting systems: the common/case-law systems, accustomed in the Anglo-Saxon countries, and the code-law systems represented in countries like Germany, France or Italy. In the individualistic inspired common/case-law systems, the legal system builds on contractual freedom showing few detailed accounting regulations relevant to all companies. In general, legal consequences like taxation are not bound to financial accounting in these countries. Only in particular cases, for example, listed companies are standards defined, mostly by private institutions like the FASB or the IASB. In code-law tradition, the interests of many company stakeholders shall be secured and the law includes detailed regulations (on a principles basis) relevant for all companies. In these countries, legal consequences like taxation or dividend payments are directly connected to accounting information producing the commonly close link between tax accounting and financial accounting. For more information see Pellens, B., Fülbier, R. U., & Gassen, J. (2004). *Internationale Rechnungslegung* (5th ed.). Stuttgart: Schäffer-Poeschel Verlag.

11 Accounting conservatism in the German context means that under the German Commercial Code it is accepted and expected that companies build reserves in certain contexts that from an Anglo-Saxon perspective would not be considered neutral representation, e.g., in the form of provisions for expected losses or by not capitalizing internally generated intangible assets.

separation between controlling and financial accounting (Weißenberger & Angelkort, 2011).

The group that served as a case for this study has its group HQ in Germany and generates a major part of its income with firms located in Germany. German accounting tradition therefore played a major role in how IFRS were accepted. Before the group adopted IFRS for their group accounts in 2002, accounting practice in the organization mirrored the traditional picture. The IT landscape was structured in independent databases and systems. The management reporting and control systems in the divisions were separated from each other and from the statutory reporting system.[12]

In emic terms, the organization made a distinction between 'financial accountants' (Bilanzierer und Buchhalter) and 'controllers'. In the case group, the word *'Buchhalter'* (bookkeeper) was reserved for staff responsible for the different journal entries. Whenever people referred to financial accounting practice (statutory), the financial accounting unit or the head of the unit, the concept of *'Bilanzierer'* was used. This concept, to my knowledge, does not have a direct English translation and includes two aspects: bookkeeping in general and preparing a balance sheet. It therefore, even in the wording, expresses the key difference between financial accountants and controllers in Germany: traditionally, only financial accountants would prepare a balance sheet, and only for statutory purposes. It is important to understand these emic distinctions, because they do not fully mirror the Anglo-Saxon perception of management accounting and financial accounting, and because the roles and connections between these classical boundaries became blurred with the introduction of IFRS. For the remainder of the thesis, the concept *financial accountant* will be used to describe 'Bilanzierer' and 'Buchhalter', i.e., those responsible for the statutory financial reporting; the concept of *controller* will be used for management accountants, i.e., those responsible for controlling and management reporting. In small firms, financial accounting and controlling could be practised by only one person, however, in the larger companies, as well as at divisional level, they were partitioned to different departments. These traditional structures continued during the time of the investigation. As the analysis shows however, the boundaries between those disciplines became blurred, at times only remaining as an organizational institution rather than actual practice.

In most companies, the controllers were responsible for operative controlling activities and management reporting within their company and to

[12] It is important to highlight here that in the group before and after the introduction of IFRS the institutionalized boundaries in accounting practice were not understood as 'internal' (management accounting) and 'external' (financial accounting). The emic separation was rather between controlling on an operational level and reporting. Before IFRS, a distinction was also made between management reporting and financial reporting. This distinction decreased with the introduction of IFRS, as the analysis shows. In the text, the concept of statutory reporting therefore stands for financial reporting to group external stakeholders and its connected accounting activities.

the divisions. The financial accountants were responsible for statutory reporting to the group HQ. Before the introduction of IFRS accompanied by the integration of the accounting systems, the controlling and management reporting part was completely independent of the statutory reporting and measurements. Differences could even be found between the management reporting to the divisions and the management reporting to the CFO of the individual company. Instead of relying on the reporting system in place, controllers mobilized a multitude of different spreadsheet calculations for their management reporting. Calculations such as contribution margin, operating EBIT or other KPI could be customized and, thus, answer to very specific information requests of the individual managers or the divisional HQ. From the perspective of the controllers and managers, this would ensure that every operational unit could mobilize the accounting information to steer their company. Each information request was answered with a customized calculation that was independent from, and thus outside the control of, the accounting system.

In practice, these divergences created significant problems of understanding which was perceived to be a negative by the HQs, but also by the individual companies. The financial accountants in the group, and particularly the group accounting unit preparing the consolidated financial statements, and to some extent also the divisional HQ, were concerned about these spreadsheet calculations, because they were not connected to the overall reporting system. The term "shadow calculations" arose in several discussions, indicating the invisibility of such measurement practices for parties outside of the individual company. Inter- and intra-company communication was hindered considerably because it was so difficult to bridge the different understandings of performance measurement. Financial accountants were bound to the reporting system connected to group HQ, while controllers found their individual ways of performance measurement. Many of the respondents mentioned the problem that ten people in a room would have ten different definitions of result in their head during a discussion; not only different in terms of how they would calculate a figure, but also in terms of how the concept of result would be defined in the first place, e.g., EBIT, EBITDA, ROCI and others. This was perceived as a substantial problem in the group at that time. Budgeting negotiations or funding of investment projects for example could become difficult, because it was complex or even impossible to bridge the different understandings of substance and result presented in the diverging figures.

Before the introduction of IFRS, the separation between the different accounting practices was strong; it was fostered by different backgrounds, experiences and expectations and often reached the point of open dislike. The head of financial reporting in one of the operational units described the traditional discourse, where controllers were considered to be less knowledgeable and unable to actually do accounting:

Controllers a) can't draw up a balance sheet, and b) have no clue about double entry bookkeeping. They can only do plus and minus calculations and even those only with mistakes.

Later in the conversation:

On the other side (…) the controllers tried to bumble through without communication, without clearing anything [with financial accounting]. And the bookkeeper used any opportunity to strike when s/he found a mistake instead of trying to discuss and arrange things together.

Head of reporting, OU 1, division E

Controllers were not involved with double entry book keeping. However, they played a central role in the companies because all operational information would first come to them. Information on for example accruals or deferred incomes as well as stock valuations and so forth would reach the controllers first. Controllers relied on spreadsheet calculations but at the same time made adjustments in the management reporting systems. When doing so without "clearance" from the financial accounting side, this could lead to severe problems in the later reporting. One problem was that changes in the figures could not be mirrored in the statutory reporting. Another problem was that double entry bookkeeping was not a controller's specialty and balance sheets were not in their focus, creating the risk of bookkeeping mistakes that were hard to discover or solve later on. Differences in the statutory figures could therefore arise that were difficult or impossible to bridge. To expose controllers as incapable of doing "correct accounting" rather than trying to work together appeared to be the ambition of the financial accountants. At times this led to significant differences between what was reported to the management and what was presented to external stakeholders in the financial reports. One example of such differences were diverging amortization and depreciation times and methods, e.g., linear depreciation in statutory reporting vs. declining balance method for controlling or tax related shorter useful lives for financial accounting purposes. Another example was internally generated intangible assets, such as customer lists, that in some companies were capitalized and amortized while they were off balances in the statutory reporting under German GAAP, which led to differing effects on operating EBIT.

From a controller's perspective, on the other hand, statutory financial accounting information was just useless, because it arrived too late and was far from the business logic.

I was working in this company for many years under the German Commercial Code. (…) Back then, we had separated accounting systems and, here, we prepared an annual report no one was interested in. Except maybe the CFO and some people in the group during the time of press conferences. (…) The reports often came so late after the year end. At that time we closed as of 30th June and the reports came sometimes in

March the following year. (…) The press conferences were around January, February. We held them with a mixture of preliminary Commercial Code figures and information from the controllers and told everyone: "these are our unaudited figures". (…) Then it was a considerable amount of work and partly extremely difficult to bridge the operative result to the net profit in the annual report. Or to bridge to the invested capital, which we also used back then [as a performance indicator], which often was not even calculated internally. So this was the drawback: that the operative people did not care at all about financial accounting.

Head of group accounting, group HQ

The above quote claims that the financial accounting figures were released too late during the time of separated accounting systems. Partly, this was due to a lack of communication between the financial accountants and the operative business world, and partly it was due to all the calculations that had to be made on top of the existing figures, i.e., additional group accounting adjustments, but also the bridging between communicated figures and those actually in place.

Balance sheets were not considered internally, and key figures like revenue or operating EBIT were defined differently. Differences of that kind did not only occur between controlling/management reporting and statutory reporting. Every company could have their own calculations, leading to huge discrepancies. Bridges had to be defined for the reporting on divisional level, which was more routinized. However, bridges also had to be made on several occasions to the statutory annual report of the group in order to, for example, prepare the board of directors and the group CFO for the discussions with shareholders or for investment decisions. These bridges were hard work, because they could not be supported by any accounting system and they had to bridge completely independent calculations and concepts.

In the case group the strict separation between accounting disciplines was seen as a problem more and more. The lack of communication and work efficiency between different areas of the organization as well as the difficulties of communicating *one* performance to the outside world became a burden and, as the head of group accounting remembered, during the 1990s voices promoting a step towards integration became louder.

4.1.2 Aiming for systems-integration and beyond: IFRS as an obligatory passage point

Integrated accounting systems: binding management reports to shared quality standards

As an outcome of the frustration and inefficiencies in working routines stemming from separated accounting systems and measurement practices, in the mid-1990s, still under local GAAP, the group decided to start *integrating* management accounting and financial accounting. As the head of group

accounting at group HQ remembered, the initial idea was to start bridging different key figures in the reports to the divisions and group HQ like revenues, gross margin and operating EBITDA/EBIT to bring the different performance indicators in line. The expectation was that such shared language would enhance inter and intra-company communication considerably; helping to improve the negotiation processes around topics like investment decisions, budgeting or bonus systems. From a top-level management perspective, a shared system would also place group HQ in a more comfortable position, because it would increase the insight and control on the different controlling activities of the subsidiaries. At this stage, despite the idea of bringing the different reporting practices closer together, the group had no intention of taking on larger investments or making changes in the systems landscape for reaching this aim.[13]

In addition, two parallel developments in the general business environment fostered this aim for integration: a growing discussion around international accounting standards, aiming to provide high quality accounting standards that would allow worldwide comparison, and a renewed and redefined interest in compliance with shared quality standards.

The concept of compliance in general indicates the abidance by and fulfilment of a shared set of standards such as laws, company requirements or codices such as a corporate governance codex. During the investigation, compliance appeared to be of high importance within the group not only for financial accountants, but also for controllers and managers. The understanding of compliance in the case group was very broad, an abidance by shared standards, and closely linked to accounting information quality. The idea was both to reduce one's own risk of legal persecution by complying with accepted standards as well as to grant legitimacy to one's own assessments and evaluations.

> *And, from where I stand, I don't think the world has turned or changed. But if you look, even at other large corporations, what was the perception of compliance about 15 years ago? What Siemens and other companies are accused of, or what they have been charged for, I believe, was established practice. Until when were bribe payments tax deductible, until 2000? I believe, the mens rea has become a different one. A completely different way of thinking was established. And the risk for the individual is seen much more today. The executive director who signs (…) stands with one leg in prison already.*
>
> Head of group accounting, group HQ

The head of group accounting is referring here to a legal scandal surrounding Siemens AG in relation to bribing practices; a scandal that was widely discussed in Germany and which under common perception constituted

[13] In fact, in the memories of the people involved it became clear that the idea of integration was not triggered by IFRS, but that without IFRS it would not have been possible to the same scale.

a turning point in Germany in relation to compliance (Leyendecker, 2011).[14] The scandal was a huge affair in Germany and internationally and it let to new laws on bribing as well as the building of compliance departments in many large organizations. The compliance departments were to ensure that the organization followed all relevant regulations in order to avoid legal consequences for companies or individual managers.

In a parallel development, enforcement around financial reporting standards became sharpened first in the US and then around the world. Over the last decade, a series of financial reporting scandals and the American reaction to these scandals in the form of a very tight and strict enforcement and punishment system for non-compliant companies also led to significantly sharpened enforcement systems in many other countries including Germany. In essence, compliance was an umbrella term much discussed among both managers and accountants. Most importantly, from the perspective of this thesis, was the fact that the discussions appeared to help managers accept the idea of a harmonization of standards within the group. This opened up the path for integration in the sense that it made people aware of the benefits of a shared standards- and value system. It was not only accountants who came to acknowledge the more practical benefits of a shared understanding, especially in relation to buying and selling decision.

> *If, for example, someone says the firm is profitable. And, if you have five people in the room, assuming you have the manager, a consultant, a buyer and whoever else; all of them have a different figure in mind! One says EBIT, one says EBITDA, another maybe operating EBIT, someone else net income. Everyone picks what they like best. And if you at least have one shared base of numbers that is connected to the same set of standards, then at least you have a chance of finding an agreement.*
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> Vice head of corporate strategy, group HQ

The vice head of corporate strategy at group HQ and his team were key evaluators of investment proposals from the companies. They were also responsible for all the communication of accounting information, market developments and investment proposals to the group's board of directors. The team was involved in both the decision of whether or not to invest, and in the negotiations around purchase prices etc. In such processes, different parties needed to agree upon the prospects of a possible investment in terms of future profitability as well as an evaluation of the company price. A shared understanding of substance and performance here could facilitate the negotiations. With the discussions around compliance, integrated accounting systems received a new nuance.

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[14] In November 2006 German authorities started with their investigations into the Siemens group and their practices of bribing. In the end, the organization was charged for 330 dubious projects and 4,300 illegal payments with a total cost of €2.5 billion.

Integrated accounting systems would grant the same basis of measurements for management and financial accounting figures, linking the management reports to IFRS. The standards presented themselves as an enabler of increased quality and comparability. Through linking these standards with organizational internal requirements, the quality of the management reporting was expected to increase as well.

> *(…) [IFRS] are objective, because many agreed on them and because you can measure them. Yes, of course they are not objective. How, for example do you measure a provision. And of course there is room for judgment. But they are still more objective than one person measuring how the book publishing market in the Ukraine for example has developed, and this one person just happens to be the manager himself.*
>
> Vice head of corporate strategy, group HQ

As the vice head of corporate strategy goes on to explain, IFRS as a 'legal' system were accepted to be the closest you could come to an objective system and, you could add, comparable in order for the board of directors and other managers to make decisions. This impression was encouraged by a growing discussion around international accounting standards, aiming to provide high quality accounting standards that would allow worldwide comparisons. Starting in 1993 with Daimler Benz AG getting listed on the New York Stock Exchange and leading the annual reports over to US-GAAP revealing big differences in the numbers, followed by many other large companies throughout the rest of the 1990s, it became evident that more and more companies saw the need for international accounting standards in order to be represented and competitive on the world markets (Pellens, Fülbier, & Gassen, 2004). Gradually, first the German stock exchanges and then the German regulation followed suit to keep up with these changes. Between 1997 and 2003, the "Deutsche Börse AG" started to require annual reports either in IAS/IFRS or US-GAAP in more and more of their market sections. In 1998, the German legislator reacted and allowed for the preparation of group accounts in IFRS or US-GAAP, firstly for listed organizations and then for all capital market oriented organizations in Germany (German Commercial Code, par. 290 ff.).[15] The case group opted for IFRS accounting in their group accounts as of 2002, which proved to be a wise choice considering the mandatory adoption of IFRS for capital market oriented organizations from 2005.[16]

IFRS did not only present themselves as a door to international capital markets. They also promised to be an enabler of integration of internal and

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[15] In the following sections only IFRS will be discussed. I am leaving out US-GAAP because IFRS were the relevant regulatory frame for the case group.

[16] For publicly traded companies already preparing their consolidated statements in accordance with other international standards as well as for companies which only held publicly listed debt securities, the transition date for mandatory adoption of IAS/IFRS was 2007 (Regulation (EC) No. 1606/2002 of the European Parliament and the Council, 19 July 2002).

external reporting, something the case group was already striving for. The need for the integration or harmonization of the accounting systems within organizations was heavily promoted by IFRS and their spokespersons in Germany (Jones & Luther, 2005). Consulting and auditing firms were key drivers in encouraging systems-integration. The head of group accounting at group HQ remembers:

> *I do believe that IFRS helped in the process [of integration] and that* **they** *also came with this: "one integrated accounting systems, that's the benefit for you". And in this respect it is my opinion that IFRS contributed significantly to enabling us to actually implement it. [Emphasis added]*
>
> Head of group accounting, group HQ

IFRS were promoted to the organization as an enabling system. The spokespersons for IFRS – "they" – here should be understood as something like a discourse rather than individual people. Auditing firms as well as consulting firms were heavily driving this line of argumentation, in order to sell "conversion projects".[17] The idea of integrating the existing accounting systems therefore was not an original IFRS idea, but it found fertile ground in Germany and those countries that already struggled to keep the long distance between managerial thought and financial accounting practices. IFRS promised to be closer to business with more market oriented measurement requirements. There were a few key items that were suggested to bring financial accounting practice closer to business thought with the help of IFRS implementation. These items could differ slightly in their emphasis in different industries; however, they were triggered by the key differences between German standards and IFRS and therefore were similar in all organizations. IFRS mainly promoted fair value accounting in relation to financial instruments, goodwill accounting with impairment testing rather than annual amortization, a redefinition of intangible assets, allowing for the capitalization of internally generated intangible assets as well as the definition of indefinite useful lives for intangible assets, giving an opportunity for annual impairment testing rather than amortization here as well. Further, the prudence principle became less important, hindering the building of reserves. A prominent example in the German context is the provisions for contingent losses, which were common practice, but which were not permitted under IFRS. From an investor's perspective, prohibiting such provisions brings the corporate value closer to market value, and thus, is perceived as more informative for business decisions.

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[17] During the field studies for this thesis, the respondents reflected little on who promoted IFRS at that time because it was an accepted discourse carried from the past into the present. However, during my time as consultant I personally experienced the ways in which IFRS were "sold" to the organizations by implementing this discourse. Additionally, for another project, I interviewed several auditors and consultants about IFRS, and they, in an almost unified (prepared) voice, spoke about IFRS as a harmonizer and enabler of integration.

Interestingly, managers and controllers would repeat these arguments in support of IFRS during interviews; however, in most cases it seemed like a rephrasing of a discourse rather than a reflection on the 'real effects', i.e., whether it actually made a difference in their practices. In this organization, few areas of IFRS accounting appeared to be consciously discussed or considered by the respondents themselves. One of these areas was goodwill accounting and impairment testing.[18] To the question of whether IFRS helped the integration, the head of controlling and group HQ responded:

> *Yes, particularly fair value accounting. I believe IFRS helped. Before IFRS, goodwill was amortized. You did not really realize if value was gone, I only had reserves and no one looked at them. But if I look at goodwill today and at the total value of the firm, the enterprise value, the firm value today is much more in focus. And this focus, I believe, came through IFRS. And if I have an impairment test, then I can see that the value of the company is attributed to me. The fair value accounting is very important from an investor and shareholder perspective.*
>
> Head of controlling, group HQ

This quote mixes general statements about IFRS and fair value accounting with something that became important to the controller himself, namely impairment testing and what value of an acquired business is attributed to the buying company. This reflects the answers from many respondents when directly asked about IFRS. The implemented discourse and IFRS were inseparably linked. However, the very general ideas became mixed with the actual practice and, thus, revealed the areas of interest. In this quote, the controller explains how goodwill became more important to him, because of the way in which invested capital was attributed to different units. In the case group, the organization that was bought had to carry the goodwill in its CGU. This meant, the manager of the acquired company became responsible for the total value of the firm as assessed during the acquisition. In the standard case, this would be substantially more than the original balance sheet value, because it would include items such as internally generated intangible assets and goodwill; and, because of the requirement of impairment testing, this invested capital would not decrease over time with a linear amortization as under local GAAP. It would stay in invested capital unless impairment occurred; it would force the management to think in total enterprise value.

In the case group, IFRS became such a strong ambassador of integration that the company opted for its implementation before it was mandatory, even before it was possible to assess in what form IFRS would become applicable.[19]

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[18] Another important area in the organization was leasing, which will be discussed further in chapter 6.

[19] The company was relatively sure that IFRS would become mandatory in some form (not US-GAAP). However, there were different ways in which IFRS could become relevant in Europe, because the standards were amended heavily during this time, aiming to convert with US-GAAP, and, standards were also to be approved by the European Union.

The uncertainty about the future, however, hindered resources really flowing into the idea, leaving the organization in a waiting position and the accountants struggling.

> *What burdened us, of course, was the high complexity of IFRS accounting. The requirements posed upon us. At that time, we did not have a corresponding consolidation and reporting system. You could say, in the first years, we really suffered. This is not an issue of IFRS. We could have changed our existing IT systems, or could have adjusted our existing one. But this did not happen, because they said: "Well, IFRS will come in some way. What changes [of IFRS] will come before that? What decisions have been made so far?" And so forth; and "Is it really worth putting so much money into out-of-date, self-designed systems?"*
>
> Head of group accounting, group HQ

Initially, as the head of group accounting describes, IFRS was an addition to existing accounting practice rather than a mediator. The accounting teams had to prepare the reports on top of the existing calculative practices, which was a burden in terms of time resources and expertise. The group was in a waiting position, observing the future developments of IFRS.

Finally, with the European Union's decision to make IFRS mandatory for all group accounts of capital market oriented companies, this last reservation was removed and group HQ fully enrolled to the idea of IFRS and systems integration. Substantial resources were allocated to implement a new financial accounting and consolidation system. The group opted for a system that was already in place in one of the divisions. Therefore, valuable experience in relation to customizing the system was already in place and the system was known to be flexible enough to cover all IFRS requirements as well as to leave room for connecting it to local controlling systems like SAP or to allow for the construction of separate information requirements for separate divisions. The management and statutory reporting systems became integrated in the sense that they became matched.

> *We got the clear instruction to make sure there was only one financial figure in the end (…) to preserve conceptual comparability. We harmonized both worlds of charts of accounts [management and statutory reporting], connected them with distinct n:1 rations.*
>
> CFO OU 2, division A

Operational unit 2 in division A was a company that originally had been the IFRS expert unit of the group HQ and was now active as a consulting firm for the group as well as for other clients. Their expertise was a combination of IFRS and IT systems knowledge and during the time of IFRS implementation they had been helping to customize the IT landscape. At the time of the investigations, this unit played an important role as gatekeeper to the accounting system, as will be discussed later. During the IFRS implementation

one set of accounts was created for management and statutory reporting purposes. The divisions kept their individual management reporting databases. However, these databases were now bound to the financial accounting world of IFRS.

This phase of integration was a technical endeavour taking up a lot of time and money resources. Initially, this IFRS project had a start and a finish line. The implementation was concluded officially with the new set of accounts and the systems in place. From a theoretical standpoint, an integrated accounting system with a shared set of accounts and harmonized numbers in both the statutory and management reporting is one step in bringing management and financial accounting closer together, because the basis of all calculative practices, the set of accounts, becomes one. Such shared basis enables companies to generate a shared understanding of key figures such as revenues, operating EBIT or net profit.

However, as the remainder of the thesis will discuss, integration work did not stop with a shared set of accounts. A shared calculation base does not necessarily lead to a strong link or blurred boundaries between operations management and financial accounting. The extensions to the reporting system the controllers produced in the time before the integration of reporting systems could still be used in an integrated world. Changes to the systems customizing had to take place frequently because of new practical problems detected or because of changes in the standards. One part of the interplay between IFRS and operations management, therefore, was the initial systems integration. However, to go beyond this shared database to mediate existing understandings, interests and calculative practices, IFRS needed more life support.

Beyond integrated systems: a new problematization of accounting practice

Why would a company want to connect internal affairs like performance evaluation and investment planning with external financial reporting standards? One motivation central to the respondents in the group was the idea of information quality, enhanced by the stated aim of creating a shared language and shared quality standards that would be more independent of the individuals. In addition, respondents described an external pressure they had felt at that time. As the head of accounting remembered, market expectations also changed, which affected the view on managerial accounting information. This in turn affected the organizations, forcing them to bring *standardized accounting quality* into internal accounting practices, especially for those organizations that buy and sell companies frequently as part of their business models.

> *If I sell a business today – it was like this earlier as well, but not with so many transactions and not as professional as today – I have to make a VDD, a vendors*

due diligence or a purchase price assessment in general. And the first thing I do is to say: "Okay, these are the numbers from management reporting; ***how are they auditable?****" Then you need to build bridges to operating assets, liabilities, income and expenses. This becomes much easier with integrated systems. It does not all have to be equal, but there have to be clear bridges between the numbers.* [Emphasis added]

Head of accounting, group HQ

At all times it had been difficult to get information during business combinations. Especially if small companies are acquired, financial accounting information might only exist for taxation purposes. What the head of accounting here describes as 'auditable', might be understood as reliability of the numbers, as decision usefulness. What grew stronger with the internationalization of accounting standards was the idea that accounting quality comes with accounting standards, making them comparable and assessable in a different way. The idea of linking management accounting to financial accounting standards grew stronger and was promoted via IFRS and its allies in different ways and in different forums.

In addition, through the integrated accounting system, the enforcement systems in place for statutory reporting indirectly became relevant for management reporting purposes as well. Every valuation, every assessment about the future that was manifested in accounting numbers now had to abide by IFRS, because for each quarterly report management and statutory figures had to be equal. Compliance with external standards, thus, transformed the company's internal requirements, creating a new understanding of quality.

Accounting practice, therefore, was problematized in a new way. Internal accounting information was to be increased in quality which could only be reached by high quality, comparable accounting standards. IFRS became an obligatory passage point in this problematization, because they came to stand for quality and they presented themselves as being closer to business than local GAAP, facilitating a close link between financial and management accounting. The group HQ could not see any alternative to this close link anymore without losing the goal of high quality management accounting information. Group HQ became dominated by financial accounting thought with the transition to IFRS. The head of controlling at the group HQ describes his view on that matter:

Back then [before IFRS] we had one head of internal reporting and one head of external reporting. With the integration of accounting systems, the head of internal reporting left the HQ and the head of external reporting took over. The external always had a net profit view (…) he was fully externally driven. And that is why here at the group HQ and also in the group the view is strongly influenced by a financial accounting perspective. And all the young people that were hired, hardly any one comes from the operations, from a business logic. All of them have their major in financial accounting. And therefore the group and its reporting are heavily influenced by a financial accounting perspective. The good thing about it is that we got an integrated

system to evaluate the group. But it blocks the view on the individual businesses, on the specifics of each operation.

Head of controlling, group HQ

From the controller's perspective, shifts in human resources helped to enrol the group HQ to the new problematization of accounting, fostering the idea that only a strong link between internal and external calculative practices could provide high quality accounting information. This implies a strong role of IFRS at group level, however, it also shows that there were differing interests at stake. In order to enrol further allies like the divisions or the operational units, group HQ had to persuade and translate these interests. The declared aim was to bring these practices together, linking management motivation to the standards.

Sustainability and enterprise value are the general frameworks here in the group. The presentation of the organization in the financial reports therefore has to be the highest priority in the motivation of our managers. (…) That's what we need the target setting for. To achieve motivation, I have to provide objectifiable criteria and those can be deducted from financial accounting. (…) Objectifiable not in the sense of a mathematical truth, there is no such thing, but as a codified framework of accounting.

Remuneration expert, human resources department, group HQ

IFRS had managed to become an OPP because different parties in the group HQ, from the CFO and the board members over the accounting group to the strategy department to the finance department, were aiming for a shared set of standards that would grant quality to management reporting. IFRS had managed to become indispensable for accounting quality from a group HQ perspective. Management accounting also includes the diversified calculative practices controllers were using in the different companies; and the ambition of the group HQ went beyond top level management reporting, with the aim of harmonizing calculative practices throughout the group, including the different divisions and companies. The "shadow calculations" should give way to standardized, shared calculative practices in relation to key figures like revenue, operating EBIT, EVA and investment calculations. Partly because this would enhance the perceived quality of the information granted, and partly because some IFRS measurement practices explicitly required a link between financial reporting to operational practices like budgeting and investment accounting as will be discussed further in chapters 5 and 6. To reach this aim, group HQ had to enrol further allies to the project of IFRS.

4.1.3 The different interests at stake

In the new problematization of accounting, IFRS were stipulated as an OPP not only for the statutory reporting realm, but also for operations management. The standard requirements became the definition of quality for both

measurement practices and accountability. According to this problematization, financial accounting was thus initially placed as the leading value system. However, there were diverse interests at stake.

From a *group level perspective*, the key interest was to have an overview of the organization as a whole, being able to compare the performance of a highly diversified business field. Both the representation to the shareholders outside, as well as the management of the group in its totality, needed to be based on figures that represented the organization as a whole; consolidated accounting information that would enable one to compare the different units. Although some insight into the individual businesses was valuable, in the diversified structure of the group, the board of directors had no means of being experts within each individual area and had instead to rely on the expertise of the divisional management. Aggregated and comparable information and management targets therefore were of most interest, something that IFRS reporting was well suited for.

> *Each division has their own database because they operate in different markets. All of them have their own division or business unit specific KPIs. (…) The reporting and consolidation system offers many opportunities. The management reports are addressed to the divisions and therefore are carried out in their database. And then it is transferred into the consolidation system at group HQ, but only the relevant parts. I don't believe anyone needs any per capita or per machine figures in the group accounts. They are not important for the group.*
>
> IFRS principles responsible, group accounting, group HQ

At a *group level*, some key figures were most important. The core KPI for the organization were a form of EVA calculation and a cash related figure (see chapter 6 for more detail). Each division then had additional KPI in place that would enable top-level management to steer the companies. However, unlike before the systems-integration, these individual KPI were linked to the overall reporting system. They built on the same set of accounts. Key figures like revenues and cost would be opened up in more detail to give insight to the business; however, top level managers would be evaluated on overall figures reported to the group HQ. Thus, the divisional databases were not separate anymore.

On a *divisional level*, deeper business insight was required. Unlike group HQ who had to monitor such diverse industries as publishing, television, radio, and other digital services, divisions to the most part were more focussed on one line of business. Nevertheless, at a divisional level, the structure was also highly diversified and the included companies spread over different areas of the respective industry as well as different countries, including different national regulations and trends. Therefore, the ambition here was similar to group HQ in the sense that divisions needed to rely on the business expertise of their local managers, while needing means of comparison for their different companies' performances.

The *operational managers*, on the other hand, had deep knowledge in their field, requiring customized and very specific accounting information at close intervals. From their perspective, aggregated, comparable figures were of limited value in their daily work.

In general, there was a tension between aggregated and standardized information versus detailed business insight. Aggregated figures would render the organization homogeneous for performance evaluation and accountability in the sense that diversity was made equal by aggregated KPI, while customized individual calculations would render the world heterogeneous, enabling flexibility to react quickly and adequately to market trends and changes, keeping the business running on a daily basis. Through the systems-integration, management reporting became bound to the standardized and aggregated world of IFRS.

> *You surely can say that [systems-integration] is a blessing and a curse (…) because on the one hand it simplifies communication and consistency. But on the other hand, in management reporting, in some instances you become inflexible. Of course it is important in many circumstances to have consistency, but if you think about planning, where the comparison to actual outcomes is less important than the expectations about the future (…) you lose flexibility to some extent and ways of simplifying reports.*
>
> Staff management reporting, division E

Some information might have been deemed more valuable than other information from individual managers, but through the integrated accounting systems all units became equal, all information was standardized at a loss of flexibility. Integrating thus meant valuing some perspectives over others. In the new problematization of accounting practice integrated calculative practices were imperative and IFRS definitions and measurements indispensable. Comparability was won, but at the same time some individuality and flexibility was forsaken. While it was still possible in the system to open up the individual balance sheet and income statement positions to reflect the detail needed for daily coordination, there were draw backs that reflected the differing interests. The head of management reporting in division B describes how he felt constrained by the pre-defined structure:

> *I am responsible for the top-level management reports. In addition, these figures are presented to the shareholders [group HQ and minority shareholders]. Our flexibility in the reports is considerably restrained, because we are part of the group which defines the KPI, the reporting systems, the reporting schedule and so forth. Within this frame (…) we develop the KPI definitions for our operational units. As far as possible from our position, we also engage in the KPI definition process at group level [e.g., with IFRS amendments]. (…) We form an opinion and we try to be active in the discussions at group HQ. Sometimes we win, sometimes we lose. (…) In that sense we are indirectly affected by IFRS because we have to implement what the group HQ provide in terms of IFRS interpretations, KPI and set of accounts. And of course the*

IFRS topics and changes influence what we report. For example, if group HQ decides on a method for the reporting of pension plans, then we have to construct our balance sheet and income statements accordingly.

Head of management reporting, division B

The divisions tried to engage in the discussions around IFRS requirements and changes of such requirements that would be reflected in the KPI calculations (see chapter 6 for examples on the relation between KPI and IFRS requirements). This engagement was manifested in trials of strength between the different divisions and group HQ. What the standard would be was contested and objected to until enough allies would be satisfied to carry the solution. However, through the systems integration, all of these negotiations were bound to the principles contained in the standards. One shared solution for all units was the aim, and during the interessement and enrolment, group HQ needed to enrol the different allies to carry this necessity as an undisputed basis of all negotiation. A separated world such as was known before IFRS should be erased as an option of practice.

In the operational units, the problem faced with integration was even more complex. A loss of flexibility here was felt in very specific ways of measuring and reporting on the company performance. The head of reporting in one of the operational units gave an example:

[In the context of the IFRS implementation] We eliminated our capitalization of amortization on delivery rights as well as on marketing investments. And bit by bit we became acquainted with the changes, which partly are disputable from a business point of view. Externally, maybe, others should be the judge of that. But from a business perspective they should be judged differently.

Head of reporting, OU 1, division A

As the head of reporting explains, the management in this unit was used to seeing delivery rights and marketing investments as part of their reports, giving them insights both on the value as well as the operating EBIT effect of their amortization. This information was deemed necessary because these investments represented a large part of operational costs. According to the interpretation of IFRS requirements in the accounting handbook of the group, the separate capitalization of such costs was not permitted, because they did not fulfil the recognition requirements. Managers therefore lost the means of showing these costs separately in the standardized reports.

The loss of business insight could have substantial consequences for the companies but also for the group as a whole, as the head of controlling at group HQ explained.

Especially group level and also the divisional board members should be measured more on long term goals. (…) Maybe you won't grow as fast, but you would have continuous growth, producing stable company values. In my opinion, what we

destroyed in firm values here over the last ten years is really extreme. And division B is another good example of that. (…) In my view they do not have any strategy on how to transfer their business model to adapt to new media and from my perspective, they will end up as our second race to the bottom.

Head of controlling, group HQ

With the first "race to the bottom" the head of controlling is referring to an operational unit that was considered close to being sold or otherwise terminated because business was so slow. From his perspective, this was, to some extent, also the failure of the group and divisional management, because a closer relationship with business trends might have indicated such negative developments earlier and different performance targets might have motivated managers to seek new business models, saving the unit from its down fall. As the quotation claims, this operational unit might not be the last to fall if the group fails to include more detailed business information in the standardized figures. In the controller's view, management reporting and the connected performance evaluation were no longer able to motivate managers to think long-term, to adapt to changing markets. Matching the figures to financial accounting numbers meant a focus on quarterly performance, hindering long-term innovative strategies.

Conflicting and opposing interests were at stake with the proposed problematization of accounting in the group. To become successful as an actor, the IFRS network therefore had to enrol further allies establishing the idea of a close link between standards and operations management.

4.2 Interessement and enrolment of the core actors

4.2.1 The basis of interessement: connecting IFRS with the business

In order to enrol allies in the organization, IFRS needed to be transformed into something understandable to the world of business. They had to be transformed into something operable that could be understood and managed not only by financial accountants, but also by controllers and managers. The analysis of the empirical material featured two principal ways of mediation in the group that brought IFRS to the business. One was the reporting and consolidation system and the other was the mobilization of a multitude of different inscriptions that would enable group HQ to keep allies in check.

The *reporting and consolidation system* covered the management reporting to the divisions as well as the statutory reporting to the group HQ. It defined the set of accounts to be used by all companies, where the set of accounts was the

same for internal as well as external purposes. It was also automatically linked to the local planning and control systems, mostly SAP technology. The system translated the abstract principles of IFRS into accounting rules in a strict manner, because after the customization of the reports, there was no room for negotiation. The companies had to fill in packages that were designed with error functions. Each error function checked the provided information in relation to accounting rules that were defined in such a way to ensure the compliance with IFRS. The reporting and consolidation system was a strong ally, because the packages left no room for divergence. The support unit of the accounting section provided guidance to all management reporting matters in a very technical form. Companies would contact the unit as soon as they faced challenges with the filling in of the reporting packages. For most companies this was possible in their respective mother tongue, which was an important factor of building trust. Each company had a designated support person and because of little fluctuation in the team, the relationships had been established over a long time. Therefore, the different accountants in the companies felt comfortable with the team and contacted them even with minor questions, giving group HQ an opportunity to guide and control the entries closely. The system made the standards operational. While very few people in the group were IFRS experts, the accounting and consolidation system enabled compliance with the standards for all operational units.

IFRS, however, also were mediated by a multitude of *inscriptions*. This section introduces the inscription mobilized to communicate the standards to the organization. Other central inscriptions are presented together with the enrolment of the respective ally. Large amounts of text in the form of an accounting handbook, as well as additional guidelines, assessments for the board of directors, IFRS newsletters and others, were produced in order to bring IFRS to the divisions and the company CFOs. All of this information was sent out to the companies as well as collected in a database that could be accessed by all people that were responsible for filling in the packages in the system. Group HQ did not provide IFRS training to the individual accountants in the operational units. The inscriptions were the chosen method of educating the organization top-down. Top level managers were invited to specific IFRS issue discussions and within the divisions some additional training was provided (see section 4.2.2), but group HQ relied on the inscriptions, the IT system as well as technical training and support for the operational units with regards to the reporting packages. Training each individual unit in detailed IFRS knowledge would not have been feasible.

During the IFRS implementation the extensive *accounting handbook* was designed. This handbook covered management reporting as well as statutory reporting issues and IFRS were clearly communicated as the basis for both types of reports. It contained detailed technical instructions and each IFRS issue was presented with an example, showing the respective accounts in the reporting package for management and statutory reporting. However, the book

could never be entirely finished, because it had to be adjusted and reworked on an on-going basis. This was the responsibility of the group accounting section – the IFRS expert team. *Other IFRS inscriptions* were produced for specific hot topics such as deferred taxes, impairment testing, PPA and foreign exchange calculations. Trends and changes in IFRS were communicated to the units in IFRS newsletters. In addition, assessments of the consequences of IFRS changes for KPI and other organizational interest areas were prepared by the accounting group for the board of directors as the basis for decision making.

The focus of the group accounting section responsible for producing most of the inscriptions largely remained on understanding the standard requirements and changes in these requirements. The aim was to ensure compliance with these requirements mostly by informing the divisions, the CFOs and the individual companies on different channels. Interestingly, there appeared to be little pressure on the group accounting team from other parts of the group HQ as to how the standards should be interpreted. The group's board of directors and the divisions trusted the team and believed in their IFRS expertise. The group accounting team's role in the organization was strong, acting as spokespersons for the group CFO in most of the accounting related matters.

> *I try not to get influenced by KPI. And I don't see an immediate connection either. I am aware that financial accounting decisions can have effects, but hey, this is just the frame in which we move. There are other legal frames as well and every one of them has consequences. The aim is not to influence the EVA, but to really understand how a particular financial accounting decision influences it. And for me, it is not only important to understand the standards and their consequences, but to also communicate them to the others. To make clear, this is not my decision. It is the frame provided by IFRS. Those are the requirements. And if we comply with these requirements, this or that figure can go up or down slightly. I have to explain and analyse and I have to make perfectly clear how this is economically reasonable.*
>
> IFRS principles responsible, group accounting, group HQ

The role of the group accounting team was to communicate and to persuade. The IFRS principles responsible in this quote also hints at the key issue that had to be solved in order to persuade the allies. Although no immediate pressure was imposed on the accounting team, anything that was not directly connected to business logic or could not be communicated so as to be understood from a business point of view would have a hard time convincing other allies. A further example is that the person elaborated that her responsibility was to communicate clearly whether the decision and/or interpretation would have a cash effect or an operational EBIT effect, which were the two expressions valued and recognized by the business.

The group accounting team was granted power because it acted as a spokesperson for IFRS; and under the common understanding in the group, complying with IFRS would reflect quality. They had to bridge the language in

the standards to the language of business: cash and operating result, even though their major concern remained with the understanding of the standards rather than optimizing KPI. Power was granted to the team also because it acted as spokesperson for the group CFO and the board of directors in accounting matters. The head of accounting as well as the head of group accounting were frequently involved in the board meetings and in communication with the group CFO in order to ensure compliance and to make sure that the consequences of investment and other strategic decisions for the external presentation of the business were clear and did not contain any surprises. However, keeping the group CFO and the board of directors aligned, was not a given. The accounting team had to make efforts to translate the different interests. Otherwise, there would have been objection.

> *From my experience there have been requests for interpretation and there have been clear statements [from the accounting team]. When they departed from it later on, it was not because of the statement being wrong. Instead it was justified with other motives: other facts or other thoughts that led to a different procedure. (…) Every decision diverging from our proposal comes from the very top.*
>
> IFRS principles responsible, group accounting, group HQ

Trials of strength could not always be won. If the group accounting team's interpretation and communication failed to translate the board members' interests, they would object and other solutions would need to be found. In such cases the actual accounting practice would be different to what the team had decided to be the best operationalization of requirements, i.e., the effect on the KPI would be different and more acceptable to the board. Without the board's consent, the interpretation could not become a rule and therefore it could not become part of operations. Instead, in these cases, top level management mediated the rule. They would decide on a different way of treating a circumstance, in management as well as financial reporting, which in turn would influence how performance was measured (see also chapter 6).

To keep their allies in place, the group accounting team had to persuade and to silence alternative views.

> *[The interpretation] also depends on the elements of choice in a standard. Or rather, which arguments are allowed to substantiate opinions at all or to refute other opinions. In my view, as soon as measurement assumptions are in play in defining balance sheet items or as a basis for calculations, there exists a considerable amount of judgmental freedom – fully legal and legitimate. It all depends on how you argue; with which information, which external evidence, which deductions you can back up your opinion.*
>
> IFRS principles responsible, group accounting, group HQ

To find reference that persuade allies can be time consuming and takes considerable effort. The quotation implies that IFRS are principles filled with life by the people interpreting them and transforming them into practices, and

by those speaking for them. They become actors through their associations within and outside the organization; and, through their associations, they are transformed. The IFRS expert also gave an example. According to IAS 38 *Intangible Assets*, internally generated intangible assets shall be capitalized if certain criteria are met. However, whether these criteria are met or not is a matter of judgement in many cases; and it can be a very strategic matter, which is why top level management might get involved. Showing these assets might, for example, signal innovativeness to the outside world, which could be a motivator for capitalization. However, capitalizing internally generated assets was also connected to additional work in order to fulfil the measurement requirements. It could create volatility in results, because these assets were often not amortized but tested for impairment annually. It also increased the capital invested which was relevant for the performance evaluation of the management. The final decision was an outcome of negotiations rather than a straightforward rule. Persuading allies about IFRS' ability to link different purposes of measurement in reporting and evaluation was central to them becoming relevant. The institutional force IFRS was equipped with in the markets of the world could only reach the operation when connecting to local values and practices.

In the organization, IFRS were ambiguous as a discourse. The standards were considered as an enabler of such a connection because they allowed for negotiations in their interpretation. Research in the financial accounting field claims that the degree of freedom in implementing IFRS helped the standards become accepted internationally with the caveat of the illusion of uniformity (Carmona & Trombetta, 2008). Theoretically, this could be judged as a drawback of principles based accounting, because it could reduce the comparability of reporting practices between firms. However, in the organizational realm this ambiguity was a considerable strength; it enabled enrolment of different allies despite disagreement with some areas of the interpretation of the standards by the group HQ. Two such clauses came to light in the group: (1) using the concept of materiality or rather *immateriality* in order to object to certain ways of accounting, and (2) a clause contained in the requirements that permits the dismissal of a certain standard requirement if the *organizational substance* can be better represented in another way. The fact that IFRS was ambiguous and left room for negotiation and argument made it relevant and made it able to connect to business (Cuganesan et al., 2007), where diverging expectations and interests were the basis of all practice.

> *US-GAAP were never an alternative for us, because they were so driven by the SEC and the FASB. There is zero room for interpretation in the regulatory frame. And, you have things that are not regulated at all and then you have no legal basis to deduct any rules from them either. Everyone was speechless [when they learned this]. This rules-based approach to accounting really bothered us.*
>
> Head of accounting, group HQ

The head of accounting is referring here to the time when the organization decided between US-GAAP and IFRS for their group accounts. At that time, IFRS was not mandatory and the group could have chosen either one. However, the rules-based approach of US-GAAP was not seen as an alternative, because there was no room for translation. From an international perspective, German GAAP might appear rules-based rather than principles based because of the many official interpretations of institutionalized accounting bodies like the Institute of Public Auditors[20] or the tax authorities. However, German accounting builds on principles that appeared to be highly valued by the accountants in the group. In the case of US-GAAP, there either were rules that left no room for negotiation and persuasion, or there was no regulation at all, not even a principle that could be used as a reference in discussions. The ambiguity and judgemental freedom in the principles based IFRS therefore were a key ingredient in the circulation of IFRS.

Yet, having room for translation between standards and business also included the need to find a balance between abstraction and detail.

> *If I have to read an accounting handbook, I am mostly interest in seeing* **my** *issues or questions answered in as much detail as possible. Everyone wants to see more examples or calculations and guidance with respect to their own issues. But obviously we have to consider that we cannot cover it all. Otherwise we quickly end up with 1,200 pages no one wants to read. So you have to find a balance: where can we include examples and guidance which are relevant for the individual companies?* [Emphasis in speech]
>
> IFRS principles responsible, group accounting, group HQ

Because of the diversified business structure of the group and a high level of decentralization, it was hard to cover all topics in the depth that would allow compliance with IFRS and at the same time link it to practical examples from all the businesses in place; especially because not all topics were relevant to everyone. The television industry would, for example, have need for detailed instructions and examples on the capitalization and amortization or impairment of internally generated intangible assets, while other divisions in the group did not have any such assets. Publishers would have the need for detail in relation to the definition and separation of titles, work in progress, own production and acquired rights, while the digital services industry would be most interested in revenue recognition topics. The accounting team was torn between the different interests of the divisions and their responsibility to ensure compliance. In several interviews with divisional and company representatives the outcome of this tension was described as a 'flood' of information.

Inscribing IFRS into verbal and textual accounts was an important method of communication, but there were limits to the amount that could be processed. The handbook was important because it was a collection of all the

[20] Institut der Wirtschaftsprüfer in Deutschland e.V. (IDW)

decisions taken in relation to IFRS. It was used by everyone, although rather from a technical perspective, helping accountants to fill in the reporting sheets according to the system, rather than from a theoretical point of view. The newsletters and additional guidance were important in keeping people updated about upcoming changes.

However, the inscriptions meant to clarify and interpret IFRS for the business, the handbook, the newsletters and so forth, by themselves were not strong enough to connect IFRS to management practice. They were necessary for reporting and to build a basis for interessement, but to enrol the key actors creating a role for operations management the standards needed more support. They had to be combined with further inscriptions, forms that would frame the behaviour of the different allies (see section 4.2.3) and with the accounting system in order to enable the group HQ to keep the divisions and the operational units as allies, controlling their activities and interests.

4.2.2 Enrolling the divisions

The case group was characterized by a decentralized structure. The divisions were, to a large extent, independent with respect to investment strategies, control systems and business planning. They also had their own accounting databases for management reporting purposes, which were linked to the local ERP systems. The divisions kept their individual management reporting databases, however, after the systems integration, these databases were bound to the financial accounting world of IFRS. This link had clear consequences for the measurement practices of the divisions. One example that will be further discussed in chapters 5 and 6 was goodwill accounting. Group HQ had to be strong negotiators in order to convince the divisions to give up their common perceptions and to agree upon new values and reports in respect to goodwill and goodwill accounting.

> *It took a very long time to match all the internal and external figures initially. In one year, I believe, we adjusted and agreed upon all the goodwill. So that the divisions would say: "Okay, we accept this. That's the correct goodwill. We'll put this in our database as well." As part of the implementation process, we then took all the impairments during the year so that we would be on one level. From there we had an annual matching. Now, it is not an issue anymore.*
>
> Head of group accounting, group HQ

Because the case group was so decentralized, and because investment decisions were made at a low level, goodwill accounting was an issue for management on all hierarchical levels, at least for statutory reporting; and through the systems integration, these values also became relevant for internal affairs. The later analysis in chapter 6 will further deal with how this led managers to change their perceptions and practices, giving a small fraction of

IFRS entrance into even core managerial practices such as business planning and performance evaluation.

However, in order to first create a role for financial accounting numbers and calculations in the organization above and beyond a shared reporting system, divisions needed to be interested and enrolled each in their own right to strengthen the network. In addition, to comply with IFRS and to create comparability within the group, the separate divisions and their companies needed to be consistent in their measurements and their IFRS interpretation, i.e., they needed to follow group HQs' interpretation of IFRS. They had to enrol themselves, which meant giving up some of their individuality.

To enrol the divisions in their role as ambassadors of integration and IFRS, group HQ was mainly bound to the strategies described above. The divisional CFOs were central to the enrolment of the divisions, because the CFOs were all part of the Board of directors for the group and, thus, closest to the calculative centre. Persuading the divisions of their role, i.e., translating their interests to include the idea of IFRS and its link to operations in the organization, required negotiation and trials of strength with both groups mediating what such a link could be and could become. While originally it was the divisions' interest to have their own separate calculative practices with respect to definitions, measurements and performance evaluation, the aim now was to create homogeneity in the calculative practices, linking them closely to IFRS notions of value. Objections to such an endeavour which could not be silenced by group HQ had to be accommodated in some way in order to keep the network intact, i.e., in order to stay integrated.

The divisions largely differed in structure, culture and business models. Some were easier to convince then others:

> *Division C is located in the US. But they are close to us, because they just implement what we tell them. They have a very simple structure. And they just do as they are told. Division E is always a bit of a fight, but they are located here [geographically close to the HQ]. Therefore, it is no problem to enforce our views there either. (…) The operative business in division A is on the skids anyway. No problem. Division B is a special case, because they always hide behind their minority shareholders.*
>
> Head of accounting, group HQ

A hierarchical sense of structure within a division would foster enrolment, because group HQ would be considered as an institutionalized authority. However, the further the interests of a division departed from the interests of the group HQ, the more effort was necessary to enrol these divisions. Although the interests of division E were diversified and negotiations were daily practice, the geographical closeness would make it easier to have personal contact with the responsible CFOs and accountants on site. Many of the people in leading positions had been working at the group HQ at some point in the careers and were personally attached to them. They knew the 'procedures'; in turn, group HQ had very detailed knowledge about their operations, because this division

had been the original core, the starting point of the organization. In situations of doubt therefore, IFRS could be 'sold' in a better way. It became easier to promote all the different guidelines and newsletters and to convince people of the importance of integration and of IFRS' role as an OPP. They could put up a fight, but in the end the group HQ as calculative centre would be considered superior, because it was standing on top of the performance measurement calculations. Division B was the most difficult to convince because it had minority shareholders so there was yet another party in play whose interests were at stake. Nevertheless, enrolment was still possible.

The head of group accounting in division B describes how IFRS gained entrance into their divisional work. The division prepared a separate sub-group account. This sub-group account was only relevant within the division and was not reported to the parent company. It was used as a communication tool inside the division and to its minority shareholders. Firstly, the financial accounting world was enrolled in this division. The preparation for the local sub-group account moved from local GAAP to IFRS. But because of the systems-integration, IFRS also got the lead in the heads of the managers.

> *Of course IFRS is leading today. In the whole group no one is interested in local GAAP anymore. (…) And therefore, IFRS is also leading in the heads of the publishing executives.*

He goes on to say:

> *We prepare our [sub-]group accounts here and one of our colleagues is exclusively engaged with analysis of these reports. (…) Then you have informal contacts with the international units and also the controllers: "What do you know about this? Why did these positions develop like this?" (…) Of course, our CFO wants to read this as well and pose questions and comments. Often his focus on information and depth of information is a different one than ours. Then we get feedback from him: "Here you have to investigate further". (…) The group report really is an instrument valued by many in our organization.*
>
> Head of group accounting, division B

In this division, the systems integration interested management in the IFRS figures. It increased the communication between controllers, managers and financial accountants and the shared IFRS numbers became relevant in all areas of the division. In order to achieve this, the division was active in IFRS trainings and workshops. Additionally, representatives from the division were present when IFRS packages were filled in the first time. As described above, IFRS training of local accountants in the organization was the responsibility of the divisions, which could base their training on the inscriptions provided by the group HQ. Division B, for example, took the following actions:

> *They have to be trained and we are very active in this respect. Today we have an accounting academy where we talk about trends and changes as well. In the future,*

this will turn into a corporate finance academy. Because you also want to include the people from the related fields, to tell everyone: "This is happening in the world". Not every bookkeeper sits there, but all those with leading positions, including team leaders. (…) Every two to three months we have a workshop where we impart the relevant content. We gladly use the information provided to us by the group HQ, the newsletters and so forth. Partly we adapt these more to our business to highlight more: what part of this theory is relevant to us? We discuss new bookkeeping methods, new processes. It is mostly hands on practical bookkeeping knowledge we focus on and then some theory on top.

Head of group accounting, division B

The head of group accounting in division B highlights two interesting aspects. Firstly, as a head of group accounting, this person had most contact with IFRS in division B, but IFRS for him was still just a theory – a frame that needed to be filled in with practice. So he gladly enrolled in the interpretation of the principles provided by the group HQ, mobilizing them in the division. It saved him time and effort, which left more room for him to select the pieces important for his business. The second aspect is that in the division they acknowledged something that was imperative in the group HQ as well: accounting was not something separated in the organization. It was connected to many functions, in particular to areas of financing, investing and strategizing. To make sure that accounting issues were reflected in these other functions, i.e., to be able to assess the consequences of managerial decisions in terms of accounting representation, this division had decided to include representatives from other disciplines in their accounting workshops.

Division B exemplifies how the divisions got engaged with IFRS. The systems integration made IFRS relevant not only for statutory, but also for management reporting. The divisions enrolled in the network around IFRS and granted it a role in the operations management. The historical organizational structures separating controlling/management reporting and statutory reporting largely remained, but the communication between the different departments was fostered and in division B's HQ they even rearranged the office layout so that financial and management accounting would be close to each other. From the perspective of the divisions, one 'frame' – local GAAP – was exchanged for another frame – IFRS. However, IFRS was a particular frame because through its strong link to different areas of the organization, it also became relevant for performance evaluation and planning, an association that went beyond mere systems integration (see chapter 6).

4.2.3 Enrolling the operational units

The new problematization of accounting practice opened the way for IFRS to become relevant in the case group. Through the urge for compliance, IFRS also managed to enrol allies at different levels of the group and from different

disciplines. The discourse on the role of financial accounting was transformed; it now included a link between internal affairs and external standards in order to reach some form of agreement throughout the firm that could withstand objection and therefore become objective, i.e., to become accounting quality. Enrolling the divisions enabled the network to match the management accounting databases to the consolidation system and, thus, to agree on the different key figures like revenue, operating EBIT and invested capital. This made the network around IFRS strong enough to become relevant and stand on top of the calculations not only for statutory purposes but also for the management reporting and performance evaluation respectively. The accounting numbers that structured and organized the calculative space and the composition of the group could no longer get past IFRS creating the standards as an OPP. Nevertheless, aligning the key figures and matching the databases was a necessary, but not sufficient step to interest and enrol the operational units. Only by interesting and enrolling the operational units, could the envisaged homogeneity in calculative practices be reached, creating a link that would grant IFRS a role in operations management.

To interest the individual units, certain IFRS know-how had to be present. Here, the company CFOs were the central ally that needed to be enrolled. The CFOs of the companies were the gateway to the financial accountants and controllers. CFOs, financial accountants and controllers built a triangle of calculative space in each of the companies. In general, the financial accountants were responsible for reporting the statutory figures directly to the group HQ, while the controllers were responsible for reporting the managerial accounting figures to the CFOs and the division. For some companies, one or both of these practices was centralized in shared service centres. What made the CFOs so important for the enrolment of the operational units was their involvement with IFRS and because the accountants in the respective companies would follow their lead. Because of the decentralized structure of the group and the amount of companies summarized in the group accounts, most of the individual financial accountants and controllers did not get any IFRS training other than the newsletters and guidance in textual form. Instead, they could get technical support from the support unit at group HQ whenever they faced problems with filling in the reporting packages. In most divisions, the CFOs on the other hand were invited to discussion forums that would give them training opportunities and make them aware of IFRS changes. Understanding the links between the standards and the business was not an easy task for the CFOs who mostly came from a different background.

> *Well, you have someone sitting in company X in the middle of nowhere in country Y. This person likely went to secondary school and then got a proper commercial education in some company. This person might not even speak English. And now*

s/he sits there and gets all the instruments imposed upon her/him. So what do you do with it? Do you at all stand a chance of properly implementing them?

Vice head of shared accounting service centre

The company representatives and their accountants were usually not previously trained in IFRS matters and were faced with new accounting requirements and a flood of information connected to them. Group HQ and divisions were aware of this problem and were engaged in finding ways of providing information and at the same time giving support to the companies so they would know how to go about fulfilling the requirements. As much as management was driven by their individual performance evaluation and bonus systems, at times they struggled to understand and to act upon the different requirements and measurements, in order to use them and in order to steer the business so as to optimize them. Through the matching of accounts, the role of the CFOs had changed significantly.

If you try to imagine the journey we have made: back then, the controllers were the ones that did the reporting. In most companies in Germany a statutory reporting section did not even exist. So what was the responsibility of the CFO? Financing was pooled here [at group HQ], financial accounting [under local GAAP] was outsourced to a shared service centre. (…) Human resource issues were supported by our HR unit. Essentially, the CFO was the sales person of the company, the first marketing person, to market his/her products. From everything else the person was more or less discharged. And in my opinion, this has changed drastically. (…) Because, from my perspective, financial accounting has become the basis of all corporate management.

Head of group accounting, group HQ

From the head of group accounting's perspective, IFRS was at the core of management interest. Most of the German companies had been outsourcing their local GAAP reporting to a shared service centre and had little interaction with their annual report before the systems integration. By aligning management reporting and financial accounting figures, the CFOs could no longer ignore the IFRS figures. This view was also shared by local accountants in the operational units. Through the systems integration, in practice it was no longer possible to provide an optimal performance, and thus, generate the highest bonus for the CFO, without engaging in both internal and external reporting affairs.

We have high pressure on our results. (…) In principle, the group is controlled on operating results. And they will leave you alone as long as your results keep up. But as soon as it becomes a little problematic you become questioned and you have to argue your way out. There are good and bad years. Some years you are more willing to

account conservatively, and some you are more liberal. But if you work against each other, this is impossible to do.

Head of reporting OU 1, division E

This head of reporting was responsible for both the financial and the management reporting in his operational unit. In the above quotation he refers to the communication between financial accountants and controllers in his unit. Prior to the systems integration, controlling activities and performance measurement had been independent of the financial accounting realm. However, now communication and working together was indispensable to understanding the consequences of managerial actions and to monitoring the unit's performance. He explains that a shared understanding of the operating results and knowledge about the financial accounting consequences, including the balance sheet, was necessary in order to have a shared strategy in terms of generating operational results for performance evaluation and reporting. CFOs, therefore, were pushed towards an interest in IFRS. The managers felt the need for a shared understanding of numbers in order to find optimal performance still compliant with the financial accounting requirements.

However, making the managers aware of IFRS was different from changing actual practices. For IFRS to become relevant in local decision making, changing calculative practices in the operations, the managers and their accountants had to enrol to the network. The different interests had to be translated and group HQ and divisions had two mechanisms by which they aimed to achieve this goal: the reporting and consolidation system and particular forms of inscriptions, letters of responsibility that would frame the ways in which CFOs could act and argue in the trials of strength. The actions taken by the group HQ and the division in order to enable the companies to become engaged and to mobilize the whole network are described below.

Mediation through systems-integration

The reporting and consolidation system was not a lifeless intermediary that could be assumed to just pass on any information. The system actively mediated how compliance was defined in the group and it allowed those reports that were considered to be compliant with IFRS and it restricted other ways of reporting. Next to the many different inscriptions that were collected, combined and mobilized in the group HQ, the accounting system also collapsed geographical distance into technical closeness:

We don't sit next to the financial accountant or the controller – of course not. That is not our responsibility. We try to implement other instruments where we can say: "With these instruments we can ensure appropriate information, adequate measurements and correct recognition of the positions to a satisfactory degree". The guiding directions we provide are the handbook, additional instructions, spreadsheet measurement tools and the reporting tool itself. In the reporting tool we have

management as well as statutory reporting packages. We can draw comparisons between internal and external figures and we can make investigations in relation to eventual differences.

IFRS principles responsible, group accounting, group HQ

There was no possibility of personally ensuring that all the accountants in the companies would understand IFRS requirements or act on them in a compliant way. Instead, different mechanisms were put in place that would enable the companies to comply with IFRS and, thus, allow the standards to be mobilized for the network. As the IFRS principles responsible describes, the group in this respect relied on technical tools for the reporting and measurement of individual issues like impairment testing or leasing calculations, as well as inscriptions like handbooks and other guidelines (see also section 4.2.1).

The reporting system was active in two ways in the enrolment of the operational units. On the one hand, it transformed IFRS into something operational, something that every business person could understand: operational rules. The rules defined in the system were equal for all companies and there was no room for negotiation for the companies themselves. On the other hand, the system granted power to those that defined the rules, that customized the reports, the contents, the error blocks and so forth. Section 4.3 describes how this influenced the trials of strength between group HQ and divisions. Division D became rather powerful, because it was able to influence the rules implemented in the system.

The reporting packages defined a form of IFRS that enabled compliance for those that were not IFRS experts. Companies had to report their figures – for management reporting and for statutory reporting – in packages that connected automatically to the individual accounts and also collected additional information that was put in manually. The reporting system also contained checks and error blocks where the reporting packages could not be closed and sent off in the case of an error.

The package has warning errors and blocking errors. (…) You can only close the package in the company and send it to us if all the validation rules are met and if certain fields are filled. You don't get the package out of your own system, you cannot report before you have completed the package and erased all inconsistencies. The system will tell you: "the package cannot be closed because field X has a misfit with field Y'. Sometimes there will be warning errors. Then the system will only tell you for example: 'The depreciation for the building appears too short'. This does not necessarily represent a mistake. But you will get the warning to double check whether the entry is correct. But you can close the package with warning errors. However, in case of a blocking error, for example for not depreciating at all, the system will tell you: 'No, this is not possible. Without depreciation you cannot close the package'.

Vice head of shared accounting service centre

With the help of the consulting unit and division D, group HQ spent considerable time and effort on making the system "fool proof" as the IFRS expert explained. There were constant adjustments to the packages in terms of new blocks and errors, not only triggered through changes in IFRS, but also including past experience, new ideas of how to define rules, warnings and blocks. To some extent this also was a political matter, a trial between division D and group HQ, which could bear negative consequences for all companies in terms of additional work.

The errors and blocks were checking for logic as well as plausibility. As the quote implies, the system was understood to be active and playing a role: the *system* would tell you whether you were in compliance or not. It became detached from those designing the system. This de-subjectification of the process in turn had great influence on the acceptance of the final figures in the group accounts. As the IFRS responsible of the group HQ described it earlier *"we can ensure appropriate information, adequate measurements and correct recognition of the positions to a satisfactory degree"*. By the time of the arrival of the packages at group HQ, both the group accounting team as well as the auditors of the group accounts accepted the information was compliant with IFRS. In many cases the reported packages were locally audited and the CFOs personally signed their compliance with the requirements in the handbook and additional guidance (see below). Both the system and the inscriptions therefore created satisfying numbers. Nevertheless, from the perspective of the group HQ, the design of the reporting packages appeared to be most persuasive in relation to the quality of the numbers. Upon arrival at the group HQ for the statutory reporting or the divisions for the management reporting, the information contained in the package was as close to compliance as was expected to be possible, and hence, in the eyes of the divisions and group HQ, as close to objectivity and quality as imaginable. These figures were able to resist objection because they had come a long way.

The additional mechanism in place, that has been briefly touched upon already, was the inscriptions circulating around the reports. The system needed support. It could not transfer IFRS knowledge and understanding to those active in reporting the numbers by itself. It could not make them engage above a point to close the system by any means. In order to give legitimacy to the figures that were implied by the system, the group HQ and the divisions used diverse inscriptions as well as a strong support unit such as group HQ to complement the system. These efforts are described below.

Mediation through inscriptions

Both the group HQ as well as the divisions took action to ensure that appropriate IFRS knowledge would be in place in order to enable compliance with IFRS rather than just using trial and error for getting around error blocks in the packages. These actions complemented each other because group HQ would define a general frame, trying to enrol the divisions and the CFOs of the

companies, while the divisions had better insights on the detailed IFRS issues relevant within their businesses. However, providing information about IFRS and the standards' requirements was only one way in which inscriptions were mobilized to act on the companies and their accounting practices. In addition, the top level management of each company had to sign forms that confirmed their responsibility and awareness. Discussed later in the thesis, the standards' links to the performance measurement system and investment planning was another way of mobilizing inscriptions for the standards' cause (see chapter 6).

Each of the divisions had their own *divisional IFRS handbook*. Except for the handbook of division D[21] these handbooks were extensions to the handbook provided by group HQ. They could be understood as further, textual, clarification with division specific examples to explain more practical matters and usage of IFRS. The divisional handbooks were smaller and contained more business specific examples, but during the interviews it became evident that most of the time either both or none of the handbooks were consulted. In a case of doubt, controllers and financial accountants would turn to the handbooks; but to create this important moment of doubt, i.e., to have 'alarm bells' ringing at the right time, meant having certain training in IFRS. Aside from the error-blocks in the reporting packages, the CFOs of the individual companies were central to creating such alarm bells in their respective companies.

In order to bind the CFOs in their role as carriers of IFRS knowledge and numbers, group HQ decided to visualize this *local responsibility* in particular inscriptions. The CFOs should become aware of their responsibility in relation to the statutory and management reporting figures. The CFOs had to be enrolled to mobilize their accountants, because certain IFRS knowledge was imperative to the aim of compliance and the homogeneity of calculative practices in the group.

> *Initially, the divisional heads were controllers and not financial accountants, and so were the CFOs, so they were not charged with financial accounting. But after the integration, they had to take on more responsibility because the internal and the external figures had to be matched. This is why we implemented new procedures. There is a link between internal and external figures, which is system backed. Then we have a statement of completeness, which I implemented myself, for every audited and non-audited company in the group, independently of the auditor. This statement needs to be signed by the responsible manager and the respective CFO. Also other*

[21] As a sub-group, listed on a stock exchange themselves, they had extensive IFRS know-how and mechanisms like an IFRS handbook were already in place when the case group decided to buy the controlling part of the shares. The division in many respects was a special case within the group and the effort to integrate the division into the group was an on-going process by the time of the investigation for this study. From an auditing perspective this was mostly seen as unproblematic because the accounting system in place was respected for its high quality. However, the inherent separation of the division led to more objections to group HQ activities than from the other divisions (see section 4.3).

requirements are included here, like, for example, internal control systems. This fir tree of statements of completeness continues up to the divisional CFOs. And the CFO of the division finally gives a statement of completion to us before we, myself and our group CFO, sign our statement of completion to the external auditor of the group.

Head of accounting, group HQ

Every single company CFO and top level manager was given responsibility, not only for management reporting, but also for statutory reporting figures and other requirements related to the enforcement of financial accounting compliance, such as the internal risk management system. In the statement of completion, the CFOs would acknowledge that they personally guaranteed the fulfilment of all requirements.

There are reporting statements and control statements in which we state that all information is complete and representative, that it is in accordance with the accounting handbook and so forth. These statements respond to all requirements, including newsletters and circulation letters which also define particular requirements for actions that are relevant to the individual reporting period – quarterly or annually.

IFRS principles responsible, group accounting, group HQ

The scope of additional responsibility assigned to the CFOs and top level managers was immense. They personally guaranteed to fulfil *all* requirements in relation to accounting that were present in the group. Considering that these requirements were spread over many different texts, coming from different sources and, like with the newsletters, on an on-going basis, this was not an easy charge. The head of accounting was clearly proud of this procedure as he mentioned being the inventor himself. From his perspective, this fir tree of statements had been extremely successful:

It has really proven to be valuable. Through these statements, the colleagues from the divisions and the operational units became more and more acquainted with IFRS and developed a totally different understanding of the matter. And they use us differently in turn. (…) It really increases the quality of accounting.

Head of accounting, group HQ

Designing a system of local responsibility created local importance for IFRS. Managers became interested in the standards and their room for negotiation was framed in the inscriptions that placed responsibility for compliance on them. As the head of accounting explains, this also led to increased contact between the individual units and the support unit. The support unit and the group accounting team were frequently asked for help in IFRS matters which implied the will of the individual units to understand the consequences of accounting for their managerial accounting information. Not only were the managers inclined to use and understand accounting numbers that followed IFRS, they were also measured on them.

The experience in the group showed, that the actions taken to enrol the managers for an integrated thinking process had been rather successful. Particularly in the German companies, but in Europe in general, the efforts spent on the interessement and enrolment of allies had made the network strong and had created a role for IFRS in the organization.

With respect to the EU countries, IFRS is the core. Let me put it like this: in the beginning, I recall audits in 2003-2005, you came to France for example and you found sets of accounts that were impossible to understand. And for their accounting logic you had to dig pretty deep into local standards to understand them at all. But now, I have to say, I took part in two company audits in France last year and I supervised six or seven other projects there, they love IFRS now. There is no other frame for accounting anymore. And the close link between management and financial accounting that is so important in our group, they understand it now. They see that every financial accounting entry is of relevance for management accounting, and for many decisions. (…) Here in the group, the integration of management accounting and financial accounting really worked well.

Staff internal audit, group HQ

The person giving the above account was a member of the internal auditing team. He was an IFRS expert and was in charge of internal audits worldwide. His view was particularly interesting because his internal audits mainly covered small and medium sized companies that were not subject to external audits and, thus, functioned under less external control. In addition, his team occasionally checked the auditing reports of externally audited companies to ensure quality there, too. His statement reflects the general understanding in the group that IFRS had, over time, gained a strong standing in the group, even in the smaller companies and that accounting quality was high for financial as well as managerial accounting information.[22] The head of group accounting in division B shared this view:

If you take a practical example: publishing managers don't think in terms of a balance sheet. They have their result calculations which all end with the EBIT. (…) Their thinking stops with EBIT and the group performance indicator EVA. We have been very active in the last years in increasing the importance of balance sheets and working capital, net working capital, etc. We discuss these issues in our meetings; and I have to say, it is getting through now. Because, in the end, the free cash flow is an important indicator here in the group, which is monitored closely. To be able to intervene early or bring up the subject with the responsible people if something goes

[22] Shortly before the investigations for this study took place, one of the Big4 auditing companies had conducted a simple survey in the group. On a scale from 1 (high quality) to 5 (low quality) all lead accountants and CFOs were asked to rate the overall accounting quality. The result was surprising because there was very little variance in the responses. A quality of 2 was the almost unified response.

wrong, which of course we saw here and there during the financial crises. Well, I would say, awareness of balance sheets and their impact increases.

Head of group accounting, division B

Under a common perception, which is also mirrored in the quotation, managers and controllers did not include balance sheet effects in their decision making. EVA in itself as a performance indicator was not strong enough to mobilize a more balance sheet-orientated view in the organization, something that would be strongly connected to IFRS accounting. However, the enrolment of the divisions and the constant motivating of CFOs and their controllers respectively led to a change in thinking, at least to a certain degree. From the perspective of the operational units, there was no longer a clear boundary between financial and management accounting. Although classical responsibility structures for reporting, i.e., separating statutory and management reporting, largely remained in the companies, the measurement practices had to be joined, blurring the boundaries between reporting and management control.

4.2.4 Successful enrolment: a new IFRS centre of calculation

Enrolling the divisions and operational units into the integrative thinking placed IFRS definitions and measurement practices on top of the calculative practices in the organization. IFRS, thus, was able to bundle the calculative space in the group HQ to create a new centre of calculation.

Under local GAAP accounting practice in the group had been clearly separated between statutory and management reporting (see section 4.1.1). On the one hand, group HQ gathered and circulated inscriptions and other information that would generate consolidated financial statements that were required for outside presentation but completely irrelevant inside the organization. On the other hand, group HQ gathered inscriptions and information from the management accounting databases of the divisions for the purpose of performance measurement and budgeting negotiations. Although little information in relation to group HQ's influence during that time was given in the interviews, it was mentioned that group HQ always had promoted some focus on balance sheet items by having some form or return on invested capital as a key figure. However, the concepts and calculative practices mobilized in the different divisions were independent of each other to a degree that made comparability difficult and complex. Thus, group HQ could not act as a centre of calculation in the sense that they would stand on top of the calculations and command the faithful records and the composition of the group. Instead, many competing definitions and measurements created ambiguity about performance and control.

With the introduction of IFRS the position of the group HQ changed. The standards had persuaded both managers and financial accountants of their cause and the group HQ's role as the centre of calculation became unified.

Previously, two separate accounting departments existed in the group HQ, one for management and one for statutory reporting. With the introduction of IFRS and the new consolidation system, these two departments were merged, closing the gap in the centre of calculation. As will be discussed in the following chapters, this closing made the new *IFRS centre of calculation* more powerful and weaker at the same time. As the head of group accounting at group HQ described it, through the move towards IFRS and the systems integration the group accounting unit became "the heart and centrepiece of the organization". The group accounting unit became the major spokesperson for IFRS, collecting, combing and circulating inscriptions that were framed by IFRS. The accounting unit therefore became the core of the centre of calculation; but the accounting unit did not act in isolation. It was so tightly linked to other departments in the group HQ, such as the finance department, the tax unit, the strategy department and the board of directors that the boundaries between these departments became blurred. There could be a dispute between the board of directors, represented by the group CFO, and the group accounting unit, leaving the ultimate decision power with the board of directors (see below). Nevertheless, occasions of objection were rare and most of the time the group HQ were working as one unit in relation to accounting numbers. For the purpose of this thesis, the group HQ as a whole are therefore considered as an IFRS centre of calculation aiming to command the divisions and companies within the group in the name of IFRS. The accounting unit and the CFO of the group acted as key spokespersons for the centre and its cause. While this stability could only be temporal and the power of the group HQ was challenged over time, IFRS and its association with the centre of calculation had managed to make itself solid, erasing its traces of construction, becoming an unchallenged part of the framework of requirements imposed upon the companies not only for statutory reporting, but also for performance measurement and management control.

The consolidation system became a force in enrolling allies, keeping them in check, especially in relation to the mobilization of the operational units that could hardly be reached in any other way. However, as the next section shows it also turned out to be of help to some allies in gaining more power than others, which shows how such temporal stability and power relations will be contested over time making them a constant source of work and struggle rather than a given status quo.

4.3 Mobilizing the network: objection, trials of strength and their mediation

Finding initial agreement on and enrolling the divisions into the idea of a close link between operations management and financial standards was a temporal

state of being. To keep the network alive and strong, trials of strength had to be won over time. Objection would occur if the interests of the divisions or the companies were not in line with the interests of the group HQ and if group HQ was unable to translate these differing interests. This was the case when IFRS notions of value and financial accounting concepts would be unable to capture or persuade business logic in the eyes of the affected parties; and some of the divisions had been more successful in objecting than others.

The head of reporting in OU 1 in *division A* gave an example: discontinued operations. In OU 1 there had been several occasions in the recent past where companies or units were sold or where it was planned to do so. However, because of the fluidity of the business, the plans for selling were changed several times and after a decision had been made, there would be a considerable time lag between the plan of the sales and the actual discontinuing of the operation. The head of reporting remembers:

> *At the end of the day we decided: "okay, let's sell this unit". And then we were supposed to show them in our annual report as a discontinued operation. This was the first time we went to the barricades. We asked them how we could solve this without making a problem for us. Then I made the proposal: "You can account for discontinued operations on your group accounting database as long as you want. In our database we will not do it" (…) because otherwise we would lose this unit in our monitoring, because from a plan to sell the unit until the actual sale can be eight, nine, ten months and no one would get any reporting in that time. (…) We calculated everything for the consolidation system in Excel. And this was possible because it was a rather isolated unit with almost no inter-company relations. So we could just subtract it from the calculations.*
>
> Head of reporting, OU 1, division A

If a company has decided to sell a unit, IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* requires these units to be presented as discontinued operations separately from other units or assets in the company. The discontinued operation has to be measured at the lower of carrying amount and fair value less the cost to sell, and the assets contained in the unit may no longer be amortized or depreciated. From the perspective of the head of reporting, this part of his business was not visible anymore amongst the regular assets. There would be no depreciation shown in the operating EBIT and the balance sheet values would most likely be different after the revaluation. From the perspective of the operational unit, this was an unbearable aggregation and a distortion of their relevant accounting information. Too much business information would be lost for the means of integration and the operational unit therefore objected. From a business perspective, the unit was still part of the organization and regular management reporting was indispensable. The division objected to the harmonized calculative practice proposed by the network, carrying different numbers in their management reporting than in the statutory reporting. Group HQ had to accept this, they could not win the trial and the

matching of systems was temporarily lost. Maybe group HQ and the group CFO did not fight hard enough because there was a solution to be found and because it was a temporary problem. Nonetheless, it created a split and it presented a weakness of IFRS as an enabler of integration.

Division C provided another example of a successful objection. The division was active in the publishing industry and part of the business activity was to produce content, i.e., to produce publishing titles. When working on a book, internal staff as well as external suppliers would be involved. To comply with IFRS, the cost for internal staff would need to be included in the inventory valuation; but the divisions' staff frequently worked on several projects in parallel and in order to track the time spent per project and to assign it to the respective title meant to completely restructure the costing system in place. The division objected successfully for years:

> *I am tired of taking the production costs of division C into my report every time. But the local auditors and also the [Big Four auditor] say: "The divergence is justified. We don't see a problem". In my view it is not correct. (…) [The division argues:] "Conservatively, we are better off with our practice. If we comply with IFRS, we have to make more efforts to collect and assign costs", and so forth. They don't want to do it and they argue with a conservative view. This makes the local auditors happy of course. Because every auditor is happy if a company does not try to push their results. I say, the results are too low and they have to correct them.*
>
> Staff internal audit, group HQ

Not adding the production costs to the inventory value lowered the operating EBIT in this company because the costs were expensed as incurred. The internal audit member of the group HQ considered this to be false and reported it as wrong to the group's board of directors every year; but his opinion was silenced by the local auditors of the division. Coming from a German framework, these auditors were more open to accepting conservatism in valuation and were also arguing with a cost benefit approach. This objection did not lead to differences between management reporting and statutory reporting as in the first example. Instead, because of the link in the accounting systems, an internal perspective on value was pushed into statutory reporting, despite the IFRS requirements. Technically, group HQ had lost the trial of strength and could not ensure compliance. Solving this dilemma was only possible because IFRS had been ambiguous in the outset, i.e., because it is principles based rather than rules based. IFRS permits companies to treat a circumstance differently than required if the economic event can be represented better in a different way. Although the staff member of the internal audit did not agree that this was the case, the divergence did not lead to an ultimate rejection from the local auditors because of this judgemental freedom; and, as described earlier, the local responsibility of the CFOs and their auditors was taken very seriously at group HQ. The voice of the internal auditor, therefore, was not strong enough to silence the objection.

While other divisions objected at different occasions and were able to win trials at times and were silenced at others, the strongest objection faced by the group HQ came from one single division. *Division D* was a sub-group listed on a European stock exchange. The group held the majority shares. Nevertheless, there were other shareholders at play and the divisional interests therefore were largely driven by a network outside of the group. Diverging interests were manifold and translating these interests for enrolment to the group HQ's view on integration was therefore a difficult affair. This division was larger than the others and contributed the most to the overall result of the group. This provided strength because the results of the sub-group contributed considerably to the overall results and, thus, to the remuneration of the individual top level managers.

However, the strength of its objection did not lie solely in its size, but in a key ally the division bound to itself: the reporting and consolidation system. When the group HQ decided to invest in a new reporting and consolidation system, they opted for a system that was already in place in division D. In fact, this was one of the key motivators because extensive know-how with the system already existed in the group. At the time of implementation, the customization was done by the IT and IFRS experts in division D, supported by OU 2 in division A[23], a consulting team, which at that time was an integral part of group HQ's IFRS principles unit. Controlling the rules implemented and, thus, how IFRS was connected to the business, gave ultimate strength to the gatekeeper of the system. To a large extent, this was granted to division D, which made it very powerful. Only the group HQ's consulting team remained as a mediator. The CFO of the consulting unit described it as follows:

> *It is not about IT, actually. That's rather in the background. It is about the fact that the person that controls the system also controls the contents. And this again is a question of self-image of the parent company.*
>
> CFO OU 2, division A

The CFO of the consulting team highlights the importance of contents. The trials of strength were not about technical matters. They evolved around detailed accounting rules within the system that would need to be followed by all companies for management as well as statutory purposes. All parties were aware that the customization of the accounting system, the translation of the IFRS principles into operational rules, was the key to control. Without the authority over the customization, the network could not be mobilized and little strength would be left to the group HQ in terms of the translation of interests. Designing the reporting system, therefore, was a sensitive issue and the initial

[23] Division A represented the holdings investments and companies that were not allocated to one of the other divisions. The consulting group in OU 2 therefore, technically, was still part of group HQ. However, at the time of investigations, they were also outsourced to a separate operational unit in order to sell their expertise to clients outside the group.

customization of the reports during the time of systems integration was a good example of how these power struggles could lead to irritation even years after the implementation. At the time of the investigation, the annual planning was meant to reflect the statutory annual figures as closely as possible. As the management reporting was part of the divisional databases, the divisions were the ones that had to consolidate the information in accordance with group HQ's requirements, in order to have a close assessment of the actual figures at year end. There was intensive discussion as to whether it would be necessary to have a planning process that was so closely linked to statutory reporting, particularly in terms of frequency and consolidation. The group accounting team, as well as most of the divisional representatives were in favour of a simplified monthly management reporting, but the changes in the existing system were a huge hurdle.

> *The decision over this design was made by the project leader who implemented the system. He was from division D because they already had the system in place. The reason for the decision is that they have a completely different situation. (…) In the statutory reporting we have a range of companies which all report directly to us [group accounting] and we consolidate them directly. (…) Division D does the same with their internal planning. (…) They do not have an integrated reporting system. They have one unit for statutory consolidation and one unit for management reporting [within their sub-group HQ]. (…) And the planning in the division is actually done in individual packages that are consolidated at group level. The separate companies do the planning, but they don't know what will be the outcome in the end at divisional level. (…) And then the individual company has to work with the outcome. This would be impossible in our group; but we are required to do it anyway. And as a consequence, we more or less have to do the consolidation for the divisions; we need to support them so that everyone has a divisional budget. (…) The divisions consolidate all over the place without actual know-how because they come from controlling. Bookkeeping is easy, but the knowledge stops with debit and credit and it does not really interest them either. They are only concerned with the operative figures, but here we are talking about the whole income statement. (…) And we can't see what they do in their databases. We have access only after they released the figures; after they had their board meetings and everything.*
>
> Vice head of group accounting, group HQ

The vice head of group accounting describes a severe dilemma for the group. The system in place required management reports to be an estimate of the actual annual statutory figures. On a quarterly basis, the management reporting figures therefore needed to be consolidated in order to match with the statutory figures. Management reporting was divisional territory in the group and an expression of the decentralized structure. It was impossible to take this away from the divisions, which posed a dilemma, because now the divisional HQ had to consolidate the management information without actual know-how or interest. Even though most parties agreed that this was a

dilemma, division D had won this trial of strength initially because they were the gatekeepers to the system, and reversing the decision was not only costly, but division D also objected to a change in the structure and frequently continued to win the negotiations.

At the time of the investigations, many such trials of strength with division D were evident. The group HQ seemed almost powerless against the objections. However, one ally remained that could silence the division's objection at times. The head of accounting at group HQ explained how this influenced his work:

> *I am in a constant, maybe not conflict, but… well, division D definitely has a special position. I have to be willing to compromise if I want to keep up the working relation. (…) It takes a lot of effort. And I have to be careful to not lose my own competences in relation to division D, that is of utmost importance. Well, there is a system and it would be most efficient to leave out the consulting team. Why would we need them? We can do it on our own, that is what division D wants. Then they do the customizing on their own. And if they have the system, they have the content.*
>
> Head of accounting, group HQ

The consulting team[24] was a key ally in the trials of strength. Because the team had expertise in IFRS as well as in customizing, they were able to translate the interests of the group HQ into the system; and they were able to inform the group HQ about actions taken by division D. They were able to transform newly implemented accounting rules into verbal and textual accounts to explain their consequences to group HQ and, thus, provide an opportunity to object. However, even with the help of the consulting team, division D was strong enough to hinder negotiation. The customizers of the division were the ones that ultimately brought the rules into the system and they would follow orders only from their chief, who also was the head of group accounting in division D. When these orders were not in place, the customizers would just object any action. The group HQ consulting team in these situations could not solve the dilemma because their function was to support, to summarize and to visualize activities. They were not at an equal level in terms of customization rights. Hindering negotiation therefore was an effective means of objecting to the group HQ's actions and resisting their command.

> *This is really preposterous. In the meetings no one from the functional side of division D ever takes part; it's only the technical staff of the division, plus us and the consulting team. But the fourth party, the content people from [sub-]group accounting in division D, they never show up. (…) To put it briefly, the customizers from division D always answer: "We don't know the issue. We don't have any feedback from our head, so we don't do anything". And that, of course, is very annoying".*
>
> Vice head of group accounting, group HQ

[24] Operational unit 2, division A

There were different strategies attempted to persuade each other but in many instances the group HQ seemed almost powerless in relation to such a strong actor. The valuation expert in the group HQ gives a further example:

> *And division D, of course, has its own specifications [in the consolidation system]. All the divisions have their specifications, but division D has particularly many. They have their own specifications, their own customizing and it can happen that we say: "Okay, we'll do this for the group, but not for division D, because they will not join". Usually, these are no major things, but if they say "no, we don't want this," we have little chance to intervene. (…) So they do their own thing.*
>
> Valuation expert, support unit, group HQ

Division D was the only division that was not integrated into the reporting and consolidation system in the same way as the other divisions were. Because they were listed on a stock exchange, they prepared separate sub-group accounts in accordance with IFRS. The company was under high public pressure and their sub-group accounts were tested independently by a Big4 auditing company. The division, therefore, could not depart from routines as easily as other divisions and they had their own IFRS expert teams to ensure accounting quality. In their perspective, the separate customizations were necessary in order to provide the quality of reporting their shareholders expected. It was difficult to translate the interest if they were far apart because group HQ, like division D, had many parties to please and both stood under public pressure.

In the middle of these negotiations and trials, the group mediated what integration and the interplay between financial accounting and operations management could be. Mobilizing the network in daily practices disclosed the different interests and their translation or non-translation to carry the views of group HQ. However, IFRS and the idea of integration were strong enough to keep the network in tact anyhow. The general presence of IFRS in management control was not challenged anymore, only the ways in which particular requirements of IFRS were transformed into rules in the system and the guidelines. While for the statutory reporting IFRS was a given because of the requirements of the market, the organization could have opted for a diverging management accounting base or created attachments to the system that would be able to carry competing interests, enabling different practices.

Objection to group wide translations of IFRS into accounting rules in the accounting system was partly silenced, and partly other ways had to be found to accommodate different interests while keeping the idea of integration. One central factor in this engagement to integration was the room for flexibility granted by IFRS themselves. Under IFRS, it was possible to convince auditors, for example, that divergence from the standard requirements was justified and permitted by IFRS. Or, as in many instances in relation to division D, integration and comparability meant to ensure accounting quality was maintained and the division could still accept different views on measurements.

However, because of IFRSs' requirement of consistency within the group, these differences could not be too strong, and in the group, this was confirmed by the auditors.

4.4 Discussion

Creating a role for IFRS in an organization means translating different interests into the direction of financial accounting requirements. The case study shows that this work of translating interests is a difficult and time consuming affair that never ceases. Instead, integration work is an on-going process of negotiating, defining and redefining what integration might be.

The desire to become integrated was not originally created by IFRS (see section 4.1.2). Particularly in countries like Germany coming from a code-law tradition, integration of financial and management accounting was associated with a shared language that would enable more efficient practice and also combined strategic efforts in, for example, investment decisions. IFRS were produced as an obligatory passage point through distinct but related international movements that created an IFRS discourse strong enough to make the standards an ambassador for integration beyond a matching of accounting databases towards a role for financial accounting standards in operations management. Beginning in the 1990s, inside and outside organizational borders, international standards became defined and understood as producing comparable, high quality financial information that is close to business logic and therefore enabling a close link between management and financial accounting. In addition, compliance with standards became increasingly important. IFRS was created to be an OPP to this integrated thinking that promoted internal accounting quality through a link to external financial standards. This created a strong role for IFRS in the group; the standards represented objectivity and accounting quality even for management reporting.

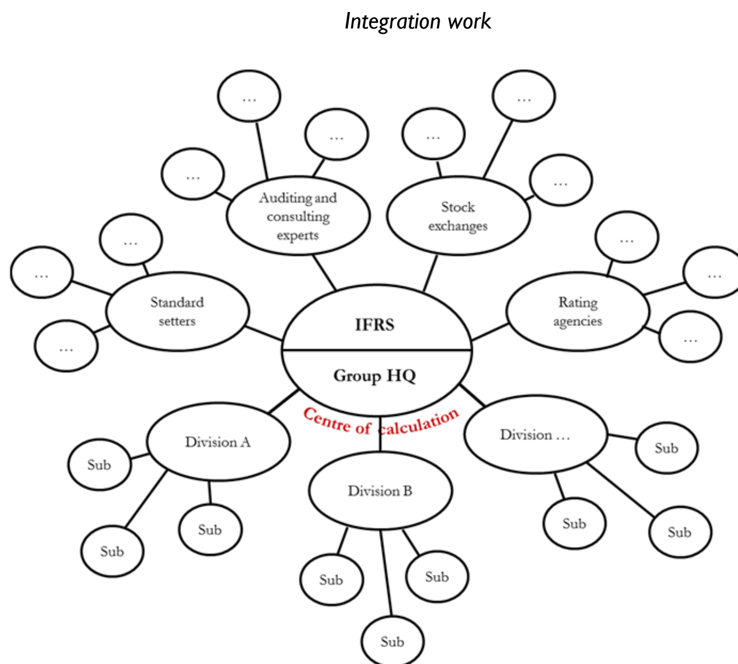

Figure 1: The IFRS centre of calculation as a star-shaped entity[25]

If the new problematization was successful, IFRS would command the organization via the group HQ as an IFRS calculative centre, dictating IFRS notions of value and calculative practices upon the organization as the faithful records that can circulate, evaluating and representing the composition of the firm. To be able to act as a centre, the external force of IFRS through its associations outside the organization were but one part of its strength. The centre had to create a network, a star-shaped web of mediators, with ever expanding associations inside and outside the firm.

Not only the international discussions around IFRS and compliance but also its association with internal key actors had managed to problematize the accounting system in the group, fostering a desire for harmonized calculative practices within the organization that could be enabled only with an adoption of IFRS. The standards had managed to impose themselves as an OPP to integrative accounting and enrolled the group HQ, the divisions and the companies for its cause. However, how a close link between financial accounting and operations management could be put into practice in the organization, granting IFRS the ability to act locally within the group, was not a stable affair.

The initial enrolment of key allies in the organization enabled *the matching of accounting systems*. Creating a shared language in terms of concepts and measurements was imperative. Significant resources were allocated to

[25] Source: own creation

implement a new reporting and consolidation system that would be able to integrate the different accounting databases. This most basic level of integration provided a set of accounts that helped IFRS to become operationalized, to define the records that would sum up the organization. The accounting system granted power to IFRS, because it was not only relevant for statutory reporting, but also for management reporting. Financial accounting notions of value, definitions and measurement of key items, were spreading throughout the organization. This helped IFRS to organize space and time in the organization (Frandsen, 2009), because it defined the categories in which management could think and speak, and thus, it defined what was seen as valuable and what was omitted (Hines, 1988). With the systems integration, the road for IFRS therefore was opened to act locally, influencing operational practice by defining the categories that become important (Belkaoui, 1978). However, as the analysis shows, this was only the first level of integration, the initial step.

Divisions and companies could show resistance to their roles as carriers of the IFRS network. They could object to group HQ, challenging the power of the centre. The analysis shows how trials of strength existed at each level of the organization. The group accounting team was the spokesperson for IFRS in the group, interpreting IFRS and bringing them closer to the business. However, their views could be overruled by the board of directors, ultimately taking other actions; or the divisions could object by diverging from the interpretations or by altering them. The accounting system here played a key role in assigning power to different actors. Customizing the accounting packages gave power to one of the divisions and made it almost impossible for group HQ to win trials of strength. Once implemented in the system, rules were equal for everyone and hard to negotiate. However, measurements could still be objected to. Such objection could either be silenced by a powerful actor, or it had to be accommodated in the network. Such accommodation could either lead to a separation between management control and financial accounting in the divisions, which was seen as negative at the group HQ, or to a divergence from the standards. The latter case was the most critical because through the close link between financial and management accounting such divergence could jeopardize the legitimacy of the financial figures in the group, not only for management reporting, but also for financial reporting purposes. In such situations, the network could only stay intact if the IFRS themselves left room for divergence. IFRS had managed to make themselves indispensable. The alternative option to having a management control and reporting system separated from financial accounting was silenced with the initial problematization. Management accounting was to be matched with financial accounting, because integration was the desired state of being.

Silencing diverging views came at a cost, because integration can never include all the different ambitions of the number. Things will get lost along the way, valuing some interests over others. Integrating business logic and accounting logic can be a 'technological nightmare', leading to one system of

logic becoming an appendix of the other (Dechow & Mouritsen, 2005). The particularity in this study is that the focus did not remain with the ERP systems of the companies, but with the reporting system for the whole group. Accounting, therefore, could not become merely an attachment. Rather, the system struggled because it had to merge two partly different accounting logics, bringing financial accounting values and management practice closer together. To reach the organizational goal of homogenous calculative practices in the group, creating high quality, legitimized and compliant accounting information for internal and external purposes, business interests had to be connected to accounting measurements in order to keep the actors enrolled.

The creation of comparable and seemingly objective accounting information came at the price of detachment. Group HQ, and to some extent the divisions, were no longer able to relate to the individual businesses or at least not to the same extent as before, because the divisional management reporting no longer included business specific key figures. Divisional and company decisions became invisible until invention was too late, at least in the eyes of those objecting to the idea of integration. As the head of controlling described, firm value could be destroyed because group HQ was unaware of deficient business models until numbers were so bad that it was hard to save the units. At an operational level, the integration could pose dilemmas and lead to resistance whenever financial accounting notions of value would not relate business interests. The matching of accounting systems and the creation of a strong network supporting IFRS and its integrative role in the organization placed financial reporting in the centre of the organization, linking it to issues of control, finance and strategizing. The role of financial accountants became blurred because CFOs and top level management also became responsible for financial accounting values. Without close communication and collaboration between financial accountants, controllers and CFOs, it became impossible to assess the consequences of managerial decisions on the overall performance.

Mechanisms like statements of completeness, as well as linking performance evaluation to IFRS notions of value, bound the managers to the financial accounting realm. However, if the standards and their respective accounting rules in the group could not convince the CFOs and controllers, it created a tension: a misfit in information and action. Supplemental information could be generated. However, the managers could not get away from the measurements and capitalization rules linked to IFRS. Consequently, they were not able to represent their performance adequately. Although the classical structure of separated accounting departments largely remained, they had to come together to find the optimal performance in a shared effort. The numbers and their measurements would not stop at the organizational boundaries. Instead they would travel through the organization, collecting bits and pieces of information from diverse spaces (see also chapters 5 and 6).

From this it follows that the process of integration can hardly be closed or finalized. Linking international standards to local practice forces an interplay of

sameness and difference (Mennicken, 2008), because the interests to be translated live in a tension between abstract, comparative information and business specific operational practice. What integration can mean and become is negotiated in the trials of strengths between the different actors, all of which have their specific role in supporting the idea of linking IFRS to operations management. A stable state can be renegotiated at any time at all levels by all actors. Resistance to the close link will be silenced or accommodated, both of which will define and redefine integration. Integration therefore is constantly made and remade. This study also shows how the ambiguity of IFRS is both a weakness and a strength for the network. It is a weakness in that the transformation of principles to rules is a difficult affair that takes huge effort from many. It leaves room for negotiation and objection. Ambiguity, however, is also a strength because it enables the interessement and enrolment of the different allies in the first place (Cuganesan et al., 2007).

While most of the current literature on IFRS takes IFRS implantation as a finalized state, focussing on the outcome of implantation in terms of quality, transparency, comparability and so forth, this chapter provides insights on how integration comes about. It sheds light on the *efforts* that are connected to IFRS implementation. Consequently, implementation is seen as a process of integration, reaching further than the mere accounting systems integration.

The analysis in this chapter shows that IFRS became embedded in the group with the potential to transform managerial practice. However, integration was a fragile state. Integration, thus, was a process rather than a state of being.

4.5 Conclusion

The case study shows that no actor by itself was able to bring about or keep integration and no actor alone could give IFRS the necessary life support to act locally. Actors are made by their associations and IFRS connected themselves to strong allies, reaching far into the organization. Although the standards came with a certain external market force, their relevance for operations management was negotiated in the associations made within the group. Only when linking to internal calculative practices, when translating the different interests, could IFRS come out on top of the calculative space. Only then, could the standards define the faithful records of the organization, enabling group HQ to act as a centre of calculation. Trials of strength had to be won over time and between different actors at different levels of the organization.

This shows that the implementation of IFRS is not just a matching of accounting systems. Creating a strong link between the worlds of management control and financial accounting, creating homogeneous calculative practices throughout the group, is connected to on-going efforts defining and redefining what integration means. Compliance and accounting quality are negotiated in the tensions and trials surrounding integration. Consequently, they are not

merely a matter of will or subjective optimization. Integration is the outcome of IFRSs' efforts to bind allies. It is a fragile network that can break anytime at any node. All allies need to be kept in place in order to generate compliance. But it is not enough to only bind financial accounting. The operational units have to be mobilized in order to really connect standards with actions. With and through the trials and power struggles, the organization constructed alignment, translated interests.

In the light of this chapter, the following two analysis chapters further take up the mobilization of such integrated thinking and harmonized calculative practice. Connecting the two worlds of financial and management accounting transformed both of these worlds. They could not be independent anymore; and yet, they had to fulfil distinct purposes in the group. This created new dilemmas for the management and the accountants, but it also helped to legitimize and objectify values in times of uncertainty.

Chapter 5 takes a further look at the financial accounting side of integration. By utilizing the example of goodwill accounting, this chapter takes up the question of how a financial figure can become legitimate and 'fair' when there is no mathematical truth. The analysis shows how the calculative practices connected to the value are not bound to classical distinctions of financial and management accounting; rather they are traversing these boundaries in order to collect referents and allies that would circulate the value. The integration of accounting practices therefore contributed significantly to objectifying the values involved.

Chapter 6 then takes a further look at the managerial side of things by continuing the example of goodwill accounting. The chapter gives a detailed account of how financial accounting notions of value became relevant for managerial practice highlighting the benefits and dilemma with the integration created.

5 Re-presenting expectations: creating a value *of the* future

While the previous chapter was concerned with the question of how IFRS were translated into the organization and how they associated with parts of the organization to become important and active, this chapter is explicitly concerned with the mobilization of the standards in the financial accounting realm. This chapter responds to the question of *how a value can become a 'fair' representation of an inherently uncertain future*. How is it possible to come to an agreement about accounting numbers if the future is at stake? And how are systems-integration and a close link between financial and management accounting involved in this process? Only if agreement about and comfort with the number can be reached, financial accounting can be closed and perform. Only in the form of a legitimate number, will IFRS be able to act in the financial markets, influencing decision making processes.

As one example of such uncertain endeavours, this chapter mobilizes fair value accounting, impairment test on goodwill in particular, to investigate how 'fair' is constructed. This chapter investigates and exemplifies the actors and their mediations in the construction of a 'circulating reference'.

5.1 Introduction

Due to its increasing role in standard setting, the concept and measurement of fair value has been widely disputed in recent accounting literature (see section 5.4 for details on the standard requirements and the definition of concepts). Penman (2007) gives an excellent overview of the cornerstones of argumentation in the debate, summarizing statements for and against fair value accounting by standard setters, analysts and preparers. Critics hereby raise concerns particularly about the cases in which marking to market is not possible, i.e., where measurement models are needed to assess a market value (marking to model). The reliability of measurements here becomes an issue because of the discretion in assessments about future performance. Furthermore, concerns are raised about the volatility introduced to firms' earnings. Promoters on the other hand argue for fair value accounting as the superior measure compared to historical cost accounting because: 1) investors are concerned with market values in their decision making, not with costs; 2) market values provide more timely information; 3) they reflect the true economic substance; 4) fair values report economic income because they

represent the change in wealth; and 5) fair values as a market-based measure are not affected by firm specific factors, making them consistent over time and across entities.

Aboody, Barth, and Kasznik (1999) for example find a positive association between fixed asset revaluations (upwards) and future operating firm performance measured as operating cash flows and operating income. The sample is monitored over a three year period after the revaluation. The authors argue that asset revaluations represent more timely information and are able to reflect a manager's private information about the asset value and performance. This is regarded both as the most critical part of fair value measurements because managers might use their discretion opportunistically; and their greatest strength. The authors, thus, acknowledge that differing motivations for asset revaluations exist. However, they argue that finding a positive relation between upward revaluations and future firm performance implies reliability of the fair value measurements because the found association provides evidence that the changes in asset values are realized in subsequent operations. Barlev and Haddad (2003) add that fair value measurements will improve the role of balance sheets because markets will determine the values of assets and liabilities. The shareholder focus therefore will be directed towards the value of their equity and periodic changes in this value. This, in turn, will enable shareholders to distinguish between management's ability to maintain shareholders' equity and generating return on such equity, which will force managers to also take the substance of the firm into account in their management activities.

Nevertheless, fair value measurements are also considered to be highly complex and flawed. Opponents highlight the critical aspects of the measure in terms of earnings management (Dechow, Myers, & Shakespeare, 2010) and measurement reliability (Landsman, 2007), particularly in the case of assets with illiquid markets (Hitz, 2007; Plantin, Sapra, & Shin, 2008), creating a 'myth' of *fair* value (Macve, 2010). The discretion in measurement assumptions is the key driver of critique, questioning the reliability of the information. Dechow et al. (2010) for example present an investigation of asset securitization, i.e., a method to pool non-liquid assets like long-term receivables into derivatives that can be sold to investors. The financial asset is measured at an estimated fair value. The sale creates an immediate source of cash for the issuer and spreads the asset-risk over diversified investors. The authors show how judgemental freedom in discount rates enables managers to manage earnings with securitized assets, optimizing their compensation. Landsman (2007) provides a detailed overview of capital market literature concerned with the relevance and reliability of fair value measurements. The author finds that existing research confirms the informative value of fair value measurements to investors; however, this relevance is affected by measurement errors, particularly in the case of marking to model (Hitz, 2007; Plantin et al., 2008). The choice of wording here seems particular interesting: measurement *error*. It reflects an

argumentation that can also be found in other prominent studies (e.g., Laux & Leuz, 2009). Issues in the measurement of fair value then become a problem of implementation of standards and rigorous enforcement rather than an inherent problematic that there cannot be one *correct* value of the future, and because the estimated and reported value itself might have an influence on the future.

Power (2010) instead takes up the debate about fair value accounting with a focus on the "social construct" of reliability. As the author describes it:

> That the future is uncertain is obvious and trivial; actual and expected income are different concepts (Dean, 2008)[26]. Less obvious and less trivial is the process by which some technologies for knowing the future come to be regarded at specific times and places as more reliable and acceptable than others." [Footnote added]
>
> Power (2010, p. 198)

The author argues that the rise of fair value as the dominant measure is connected to a shift in the understanding of reliability. Essentially, the new understanding of reliability steps away from a realization-focussed conception towards a focus on the market's perspective; collapsing the concept of reliability with the concept of relevance for "highly abstract conceptions of users, markets, and price formation" (p. 198).

Parallel to Powers effort to show how a shift in the understanding of reliability gave rise to an extended use of fair value, this chapter aims to challenge the underlying and taken for granted assumption in both IFRS as well as fair value literature that accounting measures can fairly *represent* organizational action in a simple referent-reference relationship. Failure in such circumstances then becomes a matter of IFRS implementation and enforcement of standards, asking for more rigorous application of requirements and stronger consequences in terms of non-compliance. Considering the discussion in the prior chapter, this understanding leaves out the work that organizations face in order to make IFRS 'work'.

Instead, the chapter at hand therefore raises the question of *how* a *fair* value can come about. How and why might one expectation about the future be more legitimate or valid than another? This is important because although experts commonly agree that the usefulness of fair value is largely 'fiction', fair values as numbers can become perceived as 'real' through real consequences that arise if the number is accepted by the relevant actors (Power, 2010, p. 199). While Power's study is more concerned with the institutional shifts, this chapter sheds light on the organizational level, the negotiations and translations taking place in order to report a number in the financial statements.

Actor-network theory implies two aspects for further investigation: one aspect is the idea of a gradual reduction of the world into a number that can

[26] Cross reference to Dean (2008). Editorial: Conceptual frameworks, fair value measurement and decision making. *Abacus*, *44*(3), ivii.

circulate because it substitutes the world with an inscription that can travel. According to Latour, such reference is objective and legitimate when the chain of transformation between the world and the reference can be followed back and forth. The second aspect is concerned with the translation of interests. How the world is reduced into a circulating reference is not a given in the case of goodwill accounting or impairment testing. The different actors involved will have to persuade and translate differing interests to enrol the network. What makes it possible to create a value that is 'objective' in the sense that it objects resistance and becomes able to travel, to become a circulating reference, and, thus, relevant for decision making? What are the chains of transformation between matter and form, between objects, actions, technology and numbers (Dambrin & Robson, 2011; Justesen & Mouritsen, 2009; Power, 2010) that enable temporal stability of an intrinsically flux endeavour of value?

The analysis in this chapter contributes to the literature on circulating reference and how it can be built under uncertainty (Dambrin & Robson, 2011; Justesen & Mouritsen, 2009). It does so because fair value accounting poses a dilemma to Latour's idea of circulating reference. Latour (1999) posits the strong claim that objectivity and 'truth' can only come about if all transformations between the referent and the reference, between matter and form, are reversible. It thus proposes and requires a two directional chain of transformation between the world and the reference. In fair value accounting what is to be substituted by inscriptions is the future not the past. The world needs to be reduced, but this circulating reference needs to be built without a possible chain between matter and form because there is no matter, yet. There are only *expectations* about future cash flows, market developments, and investments. Nevertheless, fair value accounting has real consequences (Laux & Leuz, 2010; Power, 2010). Numbers building on fair value circulate and perform. They influence market decisions and, as will be further discussed in Chapter 6, they also mediate managerial decision making.

Justesen and Mouritsen (2009) present one example where the future is circulated in inscriptions. The authors find that the 3-D visualizations of building projects in annual reports become such a strong reference that is able to circulate; this is because it is able to bind many allies to its cause and to govern their action. But how is an estimate about the future able to bind allies under circumstances where there is no tangible object in the future?

Huikku et al. (2013) give part of the answer to this question in their study on goodwill impairment values. The authors investigate the production of impairment values in a set of Finnish listed companies. Their empirical material analysed consists of semi-structured face-to-face interviews and follow up telephone conversations with business managers, auditors, financial analysts, investors, financial supervisory authority, media and academics. The authors put forward the importance of distributed traces, placing the number in a widespread network of support. The authors find two particular characteristics of the distribution of calculations: it reduces complexity, disentangling it in

different parts; and it spreads responsibility for the number. As such, the authors confirm that impairment values – future oriented IFRS values – become circulating reference despite the lack of a reversible chain of transformation. This study mobilizes the idea of distributed traces; however, as the following analysis will show, this thesis has a stronger focus on the organization. It contributes to and complements the existing literature by highlighting the role of integrated accounting systems and a strong link between financial and management accounting. This more detailed organizational perspective enables to investigate different strategies in the organization to persuade the network about the number.

To investigate fair value accounting in such a way is to take a constructivist approach in exploring how financial accounting is able to perform and act upon the organization and its surroundings despite a broken chain of translation between matter and form. Goodwill accounting and impairment testing on goodwill is a valuable example for such investigation because goodwill arguably bears the highest uncertainty about future expectations. It is neither bound to a particular tangible or intangible asset that could be realized in the future, nor is it able to create cash flows on its own. This makes it particularly interesting to investigate how the number of goodwill and/or impairment comes about and is able to keep its integrity in times of objection.

5.2 Representation, re-presentation and imperfect numbers

From a Latourian perspective, fair values in the context of impairment testing are essentially 'imperfect numbers' (Dambrin & Robson, 2011). They are imperfect in the sense that they represent a performance measure of how well expected synergies from a business combination have been mobilized without a reversible chain of transformation between matter and form, between organizational substance, action and number. The chain of transformation that yields the amplification gained in circulating reference, i.e., the comparable, stable and combinable inscriptions, at best is broken. Essentially, the world that is substituted by the reference does not yet exist.

Dambrin and Robson (2011) coined the concept of *imperfect numbers* by drawing together, discussing and complementing existing literature on problematic performance measures (Andon, Baxter, & Chua, 2007; Briers & Chua, 2001; Chua, 1995), challenging the taken for granted assumption in most management control literature that performance measures mirror organizational substance, leaving failure of such systems as a symptom of insufficient implementation. In their study of pharmaceutical companies operating in France, the authors recast the issue of representation. The measures are seen as "signs that translate the world in its absence", and thus, they do not represent,

they substitute the world by "a series of articulations and interpretations made by their various users" (Dambrin & Robson, 2011, p. 430). The authors mobilize and challenge Latour's (1999) concept of circulating reference to pay attention to the *how* in performance measurement. How is it possible to build circulating reference under uncertainty? That is, how is it possible to control in ambiguous relations between measure and performance? How is it possible to *translate* organizational matter into an inscription, a form that can travel through time and space as a stable and combinable mobile (Robson, 1992) resisting objection on its way, if the chain of transformation is not reversible as required by Latour? Failure of systems or objection to performance measurement does not then remain a failure in the implementation of the measurement system. Instead, the focus lies on how the interests of different actors can be translated in order to accept and carry the measurements in place.

In a similar way to performance measures in management control research, financial accounting numbers are commonly perceived as representations of organizational substance, of firm value and performance. Market participants like investors and rating agencies use the disclosed financial information to value the firm and to assess their sustainability and performance. Compliance too, as discussed earlier, is a central concept in the financial accounting realm. The standard setters themselves propose that the compliance with IFRS leads to high quality accounting because it leads to decision useful information (IASB, 2012, *Conceptual Framework*). Only by assuming that financial numbers represent organizational substance, can such a claim imply that by investigating financial accounting information, investors and other stakeholders will be able to make inferences on firms' value, performance and sustainability from financial information.

When assuming a rather defined referent-reference relationship, a practice like earnings management becomes a problem for financial representation because it distorts the sign that should represent the world. IFRS and their sister standards the US-GAAP have therefore been investigated intensively as to how they are able to enhance accounting quality by lowering the degrees of earnings management (Aussenegg et al., 2011; Barth et al., 2008; Leuz et al., 2003). Failures of IFRS to increase accounting quality then became a matter of flawed implementation (Brown & Tarca, 2005; Daske et al., 2008; Schipper, 2005; Van Tendeloo & Vanstraelen, 2005). These studies rely on proxies for *abnormal* results in order to investigate the degree of earnings management. When challenging the thought of a simple referent-reference relationship in accounting, different interpretations of *abnormal* might become possible.

Few studies in financial accounting have challenged representation as a quality of accounting. Hines (1988) claims that in communicating reality, we construct reality. Only by '*real*-izing' something as an asset or an income, does it becomes an asset and a source of income. Financial accounting, thus, does not only have a representational role, it defines the categories that are valued and those that are lost; it creates something by summing up the organization in a

particular way. Tinker (1991) and Mouck (2004) also challenge the idea of representation, proposing an epistemological rather than ontological approach to objectivity and validity of accounting information. In the light of 'arbitrariness of signification' in accounting, objectivity then is constructed in practices, accepted procedures that are agreed upon by many. Accounting information therefore cannot only represent the organization in an unproblematic referent-reference relationship. However, these authors are not concerned with the performative aspects of financial accounting, i.e., how the numbers can bind sufficient life support to become relevant for decision making. There is a difference between agreeing upon a procedure (faithful representation) and becoming relevant (see section 5.3).

Bringing together literature from both management and financial accounting in the light of faithful representation, Lennon (2013) frames the concept of *re*-presentation as a counter concept to representation in the standard setter's meaning of faithful representation. An inscription does not just represent something, it substitutes the phenomenon, it becomes something in its own right. Or as Lennon (2013, p. 70) describes it, ANT does not attribute representational faithfulness as a quality to inscriptions, i.e., an inscription by itself cannot be a faithful representation, instead the relationship between referent and reference is defined by translation, by transformation from matter to form. Inscriptions are constructed as faithful within their network of support.

While financial accounting literature has begun to critically discuss what faithful representation might be or whether it is meaningful to think in terms of representation at all, the idea of imperfect numbers in the Dambrin and Robson sense has not been taken up to date. Existing literature proposes a creative character of accounting. By defining how the organization is summed up, financial accounting information defines what is valued and seen, it therefore not only represents, it presents. However, the question of *how* a circulating reference can be built under uncertainty largely remains a mystery. Dambrin and Robson (2011) propose four features of calculative networks that are able to create a strong reference that is able to enrol the key actors in the company despite a broken chain of translation. In their study the authors investigate pharmaceutical companies in France and how the performance measurement system of drug representatives (drug reps) can perform despite the fact that there exists an unstable relationship between their activities and their sales figure related performance measures. The authors find that *methodological opacity* of the measurement calculations facilitates the enrolment of the drug reps. The calculations were perceived as uncertain because they are bound to many contingencies such as overall bonus budget or the related product, and they are complex to the extent that they are understood only by a few. This enrolled the drug reps who "genuinely believed" in the calculations. In addition, part of the transformation consisted of self-reflections by the drug reps. In order to enrol the top level management to these judgements, the

method of *bricolage* is used, where existing inscriptions created for different purposes were compared, combined and superimposed to 'triangulate' the information provided by the drug reps. Furthermore, the authors find that the inscriptions were also able to circulate because there was ambivalence in the drug reps' *professional identity*. Although on the outside they would present and perceive themselves as medical informants, inside the organization they would follow commercial goals, which helped them to accept sales related performance measures. Finally, the inscriptions became strong reference because they were able to organize time and space in a way that made the daily work of the drug reps more efficient. Thus, they enabled *practical action* in a way that would not have been possible without the different transformations.

While these authors argue from a management accounting perspective, Power (1996) takes up the issue of how things are made auditable. This is an important aspect in the context of fair value accounting because the auditing function is a key requirement in carrying the numbers into the market. Power touches upon the concepts of bricolage and methodical opacity, but in a broader sense. In creating auditability, inscriptions become important because they can be evaluated, they can be combined and superimposed. In order to convince, however, the environment needs to allow for established auditing knowledge to take place, by creating auditable measures of performance, systems of control, or reliance on other experts. Power therefore opens up the idea of bricolage to external nods in the network. The measurement systems not only need to be obscured and complex, they also need to arise in a network of trust, relying on valuation experts that mystify valuation practices (Boland, 1982).

In actor-network theory, the objectivity and legitimacy of the inscription is negotiated along the chain of transformation. According to Latour (1999), the chain of transformation must be reversible in order for the inscription to become a strong reference, in order to perform as a legitimate substitute. Only then will the inscription become relevant in financial accounting terms. This strong claim was challenged by Dambrin and Robson; however, the authors remain loyal to the existence of a *chain*, which implies a *sequence in action and inscription*.

This chapter contributes to the discussion because in the case of fair value measurements, a chain in the sense of the sequences of actions and transformations cannot exist. The referent is constituted by the future and is not materialized. The dilemma therefore is of a different kind and it emphasizes how the two dimensional chain of transformation needs to become a star-shaped entity (Latour, 2005) that is able to build a circulating reference that acts at a distance without Latour's grounds for scientific objectification.

The analysis in this chapter takes the aspects highlighted in earlier literature that contribute to the creation of circulating reference as a starting point of investigation. By bringing these mechanisms into the context of integrated accounting systems that seek to define a value of the future, the study opens

new aspects of these mechanisms and complements them by putting particular emphasis on the role of integration and dispersed calculative practices in the process of enrolment.

5.3 Decision usefulness and the problem of relevance

This section introduces key concepts of the financial accounting realm in order to clarify the expectations on financial accounting numbers in relation to reliability, validity, objectivity and 'reality' or 'truth'. In other words, what qualities must a financial accounting number fulfil in order to be accepted as legitimate in the context of IFRS? Such clarification is important because the key allies that need to be enrolled and their respective interests are framed by these perceptions and requirements.

The overall objective of the IFRS is that of *decision usefulness*:

> To provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit.
>
> IASB (2012) *Conceptual Framework*, OB2

The fundamental qualitative characteristics that enable information to be useful in the definition of the standard setters are faithful representation and relevance. Information is *relevant* if it is

> (…) capable of making a difference in the decisions made by users. Information may be capable of making a difference in a decision even if some users choose not to take advantage of it or are already aware of it from other sources.
>
> IASB (2012) *Conceptual Framework*, QC6

Faithful representation is about representing phenomena in a complete, neutral and free of error manner (ibid.). Lennon (2013) provides a thorough summary of and discussion on the understanding, interpretation and critique of the concept of faithful representation. In essence, the concept of faithful representation is concerned with the *reliable* representation of processes rather than reflecting an independent underlying truth; that is, it presents an epistemological objectivity rather than an ontological one (Mouck, 2004). The standard setter confirms this view by acknowledging that an unobservable price, as for example in the context of goodwill accounting, cannot be accurate or inaccurate.

> However, a representation of that estimate can be faithful if the amount is described clearly and accurately as being an estimate, the nature and limitations of the estimating process are explained, and no errors have been made in selecting and applying an appropriate process for developing the estimate.
>
> IASB (2012) *Conceptual Framework*, QC15.

In many respects, faithful representation is therefore connected to the scientific understanding of reliability. The estimate reported should build on a technique or techniques that will yield consistent findings and there should be transparency about how judgements and sense making came about (Saunders, Lewis, & Thornhill, 2007, p. 609). Consequently, a faithful representation in financial accounting builds on calculative practices in accordance with the standard requirements such as discounted cash flow methods, market price observations and other factors.

However, only applying an agreed upon procedure is not sufficient to convince the users. In order to become decision useful information, the ultimate objective of financial accounting information, it also needs to be relevant for the users.

> (…) [The] estimate can be a faithful representation if the reporting entity has properly applied an appropriate process, properly described the estimate and explained any uncertainties that significantly affect the estimate. However, if the level of uncertainty in such an estimate is sufficiently large, that estimate will not be particularly useful.
>
> IASB (2012) *Conceptual Framework*, QC16

As Power (2010) points out, reliability and relevance in current financial accounting standard setting have become so closely entangled that they are essentially collapsed into one. Measures, therefore, can only be reliable if they are relevant to investors and other stakeholders and vice versa. However, to construct such reliability and relevance is challenging if the future is at stake. The level of uncertainty is high. Relevance, and thus reliability and, ultimately, decision usefulness therefore become problematic. The dilemma faced by accounting information is to convince readers and users about its *validity*; and validity is a construct. There is no independent observable truth that could be represented in a valid way (Hines, 1988; Tinker, 1991). Instead, we need to find ways to convince others about our judgements, to make them believe that our claims are valid and, thus, legitimate. We need to find substitutes in order to create values that are accepted by many to make them objective, i.e., to enable them to stand trials of strengths, resisting objection.

Taking the described dilemma and bringing it together with an ANT understanding of *re*-presenting highlights the problem faced by producers: any transformation between the world and the sign, the inscription, will need life support to convince others of the number. Reliability/relevance and faithful representation than become collapsed into one central problem: to convince other parties about the reality constructed in the number. While the

mathematical model accepted for marking to model might be of less concern because established procedures like DCF methods can be mobilized, the core issue becomes to construct a value of the future that will be comfortable for many. In the following section this is understood as constructing relevance for the number. This chapter, thus, presents an investigation of *how* accounting information can become decision useful in the sense that it becomes faithful *and* relevant.

5.4 Fair value, goodwill accounting and standard requirements

The thesis mobilizes goodwill accounting and impairment testing in particular in order to exemplify how IFRS act in the financial accounting realm. The tool that was mobilized by the group HQ to calculate the impairment test was one example of how inscription devices and the related inscriptions enabled the IFRS centre of calculation to define the faithful records and command the group. This chapter takes a look at the financial accounting side of things, i.e., statutory reporting; chapter 6 then investigates whether and how IFRS could link to and act upon operations management.

IFRS proposed certain calculative practices, such as recoverable amount, to the case group that did not exist previously under local GAAP. The calculative practice, impairment testing, was brought into the organization through IFRS. Compliance was important because the group was active in the financial markets and therefore faced severe consequences in the case of misconduct. More generally, in the financial accounting realm, goodwill accounting and impairment testing are well suited as examples because the uncertainties in relation to judgements here are particularly high. Observable markets are perceived to be the most objective assumption of value; comparable asset prices still give some reference to market prices. In the case of goodwill accounting, the only basis for calculation is expectation. This section provides more theoretical background on the complexities of goodwill accounting and impairment testing.

The standard requirements on goodwill accounting are complex and spread over three IFRSs: IFRS 13 *Fair Value Measurement,* IFRS 3 Business Combinations and IAS 36 *Impairment of Assets*. Fair value is defined in IFRS 13 as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date" (IFRS 13.9). The focus is on an exit price when the company sells an asset or liability and not on an acquisition price. At the date of transaction (i.e., initial recognition of the asset or liability) the transition or acquisition price will most likely be equal to fair value but at later stages they may differ. To measure the fair value, companies are obliged to use the best evidence available to assess the

market price, maximizing the use of market observable inputs and minimizing unobservable inputs. IFRS 13 defines a fair value hierarchy in three levels: level one measurements include quoted market prices in active markets; level two refers to inputs other than quoted market prices that are observable in the market directly or indirectly (e.g., for similar assets or liabilities in active markets); and a level three measurement includes all other valuation techniques using unobservable inputs. The difficulty in relation to goodwill accounting is that goodwill cannot be sold or bought in a market and has no similar assets to compare with. Every valuation therefore will be a level three valuation, i.e., building on valuation techniques such as the DCF method.

Goodwill is defined as "an asset representing the future economic benefits arising from other assets acquired in a **business combination** that are not individually identified and separately recognised" (IFRS 3.A [emphasis in original]). At initial recognition goodwill is measured as the excess of consideration paid over identified assets and liabilities measured at their acquisition-date fair values. During the process of PPA (purchase price allocation), companies need to first identify assets and liabilities of the acquisition, even those that have not been capitalized before such as for example internally generated brands or customer lists, and measure them at fair value. After all assets and liabilities are identified, goodwill is measured and capitalized as the residual value. The revaluation of assets, called "asset step ups" in the case company, commonly leads to a higher total asset value. Subsequently, goodwill is annually tested for impairment while the asset step ups are amortized together with the respective assets over their useful life.[27] At initial recognition, goodwill therefore is estimated indirectly, defined as a residual value. The notion of 'fair' here describes something that is not defined by itself but represents an unexplained rest.

Fair value, then, is defined more directly for goodwill in its cash generating unit (CGU). According to IAS 36, goodwill has to be tested for impairment annually. An impairment loss has to be recognized if the goodwill of the carrying CGU exceeds its recoverable amount where the recoverable amount is defined as "the higher of its fair value less costs of disposal and its value in use" (IAS 36.6). The fair value less cost of disposal is the fair value of an asset less any cost the company incurs in order to sell the asset. The value in use on the other hand is a company internal valuation of the asset, calculated with its discounted expected future cash flows, that explicitly takes into account internal information about internal synergies. In that way, the recoverable amount takes into account the fact that the internal value of an asset might be higher than its market value. Moving on in time, and in order to be able to define a fair value for goodwill, the notion of 'fair' is translated into the notion of recoverable amount and thereby explicitly incorporates different notions of value, including non-financial values in the form of company specific synergies.

[27] An annual impairment test instead of a regular depreciation or amortization is also required for assets with indefinite useful lives or assets that are not ready for use.

Central to impairment testing of goodwill is also the idea that goodwill cannot be measured on its own, not even with the substitute of recoverable amount because a residual does not produce cash flows on its own. At the acquisition date, companies therefore are required to allocate goodwill to the CGUs that are expected to benefit from the synergies of the business combination. A CGU is defined as "the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets" (IAS 36.6). For the purpose of goodwill impairment testing, the CGU must represent the smallest unit on which goodwill is monitored within the company and may not be larger than an operating segment of the company (IAS 36.80). The recoverable amount becomes translated – broadened – in order to span over a group of assets and liabilities that carries some or all of the residual value. 'Fair' then becomes translated into something that is only loosely coupled with the original residual value because an impairment loss will only be recognized if the assets and liabilities in their totality decrease in market value. Changes up and down in the values of different assets and liabilities in the group will not necessarily have an effect on the overall value and 'fair' therefore becomes related to many things; it becomes a network.

5.5 Dispersed calculation as enabler: creating faithful re-presentation with a black boxed inscriptive device

In order to accomplish the impairment test, group HQ had developed an inscriptive device – a spreadsheet – to value the goodwill carrying CGUs at fair value less costs of disposal.[28] It produced matters of fact about impairment values. The strict format of the tool translated the abstract requirements on goodwill accounting into something concrete. Textual requirements were translated into activities and numbers that were operational enough to become management concerns (see appendix 3 for a simplified model of the tool).

The annual impairment test of goodwill was an issue in all divisions and the calculations were performed per CGU as a discounted free cash flow method, with five years of free cash flow forecasts and a terminal value, all discounted at risk appropriate rates. The tool attempted to re-present the characteristics defined in the standards. It was used to produce the net present value envisaged

[28] In agreement with the auditors, the value in use calculation was thought to lead to a higher value than fair value less costs of disposal because the cash flow forecasts include the internal synergies and it was consequently only calculated in cases where the calculation of fair value less costs of disposal implied impairment.

by IFRS rules. It proposed the steps of the calculation and it collected the necessary information from many different sources.

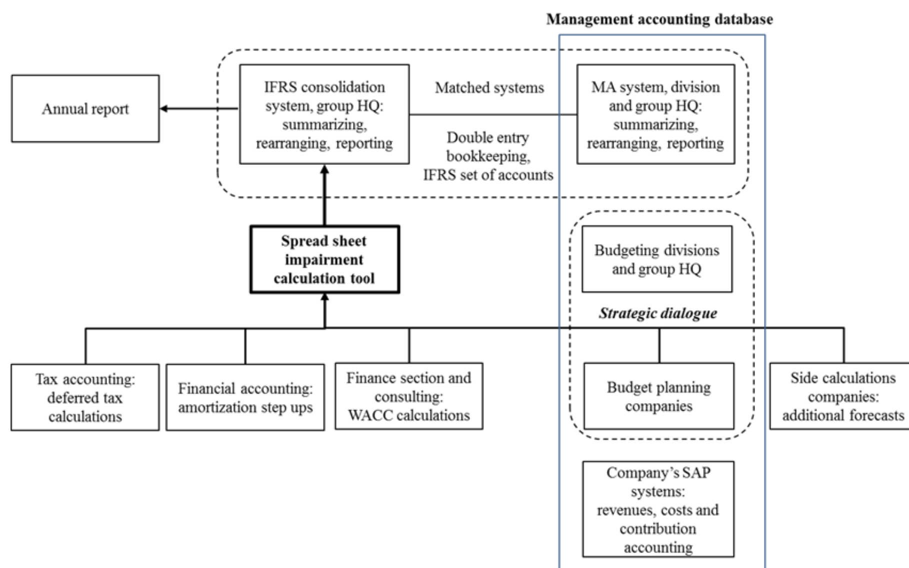

Figure 2: The dispersed calculation of impairment values[29]

First, the tool distributed the responsibility for the cash flows of the CGUs to the respective operational units.[30] Three of the five years of forecast were directly taken from the budgeted information in the databases of the individual divisions. An automatic link was constructed that drew the relevant information into the tool as soon as the CGU was defined. Two further years of cash flow forecasts and a terminal value then had to be defined manually for the respective CGU. Then, the tool required and applied a discount rate in the form of weighted average cost of capital (WACC). It also demanded estimates of amortization on asset step-ups and deferred taxes. In total, the collection of input factors for the calculation tool was spread over many different areas of the organization, from the individual units, through the expectations of the divisions, to different units of the group HQ, namely the finance department, the tax department, to some extent the support unit, and the group accounting team. In the end, the calculation had to be signed off by the auditor and the

[29] Source: own creation.

[30] Although the operational units were responsible for providing the information necessary to calculate the cash flows in the test, the definition of CGUs was subject to discussion between the divisions and group HQ and was outside the scope of investigation. However, CGUs did not always represent legal entities and sub-units could instead cover several operational units or parts thereof.

CFO first locally for the individual calculations and then on group level for the consolidated numbers.

Through these simple principles, the spreadsheet tool managed the production of recoverable amounts or impairment values for more than 1,000 CGUs. The tool as an inscription device spread the responsibility for the calculation over many contributors; it required and later collected and consolidated information from many different and disparate organizational and extra-organizational places. Through the tool, the group HQ therefore stood on top of many calculators and transformed their individual contributions into a collective calculation, superimposing the different values with consolidated information on group level. This spreading and collecting of calculation represents a *dispersed calculation* that ensured a de-personified process of calculating practice (Huikku et al., 2013). Despite the high responsibility of the operational units, their influence on the total outcome was limited because the central measure of WACC was provided for them from a different source. This aspect will be very important later in the discussion when understanding how the values were able to convince other actors.

Overall, the spreadsheet tool presented the calculation as a matter of fact by drawing together knowledge from disparate places into one space. The tool codified the principles into several line items and key factors that together enabled a calculation of DCF that fit into the principles of the standards. In addition to the strict codification within the tool, the group HQ circulated more inscriptions in the form of written guidelines to the companies which defined different steps in the routine such as how the tool was to be filled, how companies could determine the relevant CGUs and so forth.

The role of the tool, however, can be described as twofold. Firstly, to take part in the translation of IFRS into the organization and thereby enabling the integration process (see chapter 4). The tool expressed the command of the IFRS in an inscription that could circulate, that displaced many different calculators, each bringing a part to the puzzle. By placing itself as a fact-producing device, the tool also strengthened IFRS as an actor in the organization. It enabled the interessement and enrolment of different allies because it translated IFRS into something that could be understood by operations management.

Secondly, it constructed a *faithful* re-presentation of goodwill and impairment, providing the calculative process with epistemological objectivity (Mouck, 2004). Faithful here is in the sense discussed above, i.e., mobilizing an established mathematical model that was accepted in the network around the number. The tool was created during the implementation of IFRS with the help of external experts involved in the conversion. By the time of investigation, the tool was not challenged in any way. Instead, it was accepted as a fact-producing device. It was suggested to be state of the art, not only by accountants but also by auditors. Discussions and auditing activities, consequently, were concerned with the assumptions behind the valuation, not with the actual calculative

practice. The tool's strength in this respect was only limited by possible 'handling failures'. As the standard proposes, the company has to ensure that "no errors have been made in selecting and applying an appropriate process for developing the estimate" (IASB, 2012, *Conceptual Framework*, QC15). From an auditing perspective, this was ensured by the automatic link between the management accounting database with the tool, as well as quality checks in the group HQ. In the group accounting team, all the calculations would be collected and checked for plausibility and calculation errors (e.g., by checking that all inputs given to the companies from other sources had been applied correctly).

Nevertheless, while the IT tool might have been able to convince its surrounding of giving a faithful re-presentation of events, the tool alone was not able to convince other actors about the relevance of the information. While closing the dispersed values into one value, it could not ensure that this value *of the* future would resist objection. The judgements and estimations necessary to fill the tool with information created uncertainty and left room for trial. Not even an extended textual and verbal guideline of how to calculate an impairment – circulated by the group accounting team and the group support unit – could prevent objection.

It was not only the auditors representing the financial markets that needed to be persuaded and convinced; the number needed to enrol other key allies as well in order to travel: the group accounting team, the shareholders and the group CFO, who would need to defend the values in front of the board and the outside world.

5.6 Inscribing the future and making it relevant: closing matters of concern

5.6.1 The key allies for the number of the future

The empirical investigation for this thesis was focussed on an organizational level and therefore did not include observations or interviews with external parties like auditors, shareholders or other users of financial information (other than the management itself). The views of the auditors have been taken into account indirectly via the perceptions of the organizational members. Consequently, no inferences have been made as to *how* the prepared information, goodwill or other, was used and mobilized by the financial markets. Hence, from the perspective of this thesis the inscription of an impairment or a confirmation of existing book values in the annual report was the closing point which confirmed that the information had enrolled sufficient allies to become relevant, and thus, occurred decision useful. Such assumption is maintainable because the auditors were assumed to be the central

spokesperson for the market and other stakeholders outside the organization. There is no guarantee that a testified number in the annual report actually is used for decision making by the users. However, the standard setter defines that relevant information should have a potential use, even if the respective users refrain from acting upon it.

For matters of feasibility, *auditors*, together with the group CFO, therefore were considered to be the key ally that ultimately would carry the number outside the organization, confirming its validity and legitimacy. Although no interviews were conducted with the auditors, their views and potential objections were mirrored in the reflections and actions of the accountants and CFOs in the group. As Power (1996) describes it, the auditing function could be felt in the organization as a "pre-audit audit" guiding the actions of the group accounting team as well as the group CFO in order to be able to get the group's annual reports testified. For the purpose of this investigation therefore it is assumed that the world outside of the organization is mobilized via the spokesperson's 'auditing company' and group CFO.

The *group CFO* is the second key actor in enrolling the markets because this person needed to defend the numbers in the question and answer sessions with the auditors, the shareholders and other external parties like the analysts. The group CFO carried the responsibility for the impairment process as a whole and had to be convinced of the judgements made along the way. However, the group CFO and the board of directors would concern themselves only with 'critical' cases.

> *We are monitoring recoverable amounts and book values. And if the recoverable amount is relatively low, or if in the prior year we were close to an impairment, then we define this case as a critical CGU.(…) Of course it also relates to the amount of goodwill involved. (…) The amount of goodwill plays a role. And, of course, the variance analysis of plan vs. actual figures. (…) And based on this we decide about critical CGUs. Naturally, we know most of the critical cases from past experiences.*
>
> Valuation expert, support unit, group HQ

Critical cases were those that were close to an impairment, had shown an impairment in the past, were at risk of impairment because of negative developments in the business, or where an impairment would be particularly "painful" because the CGU carried a high amount of goodwill. In such cases, the judgments involved and the calculative outcomes were closely monitored. The calculation left room for judgements on both the cash flow forecasts and the discount rate, which opened a variety of possible calculative outcomes. Small adjustments in the assumed growth rates, the terminal value or the discount rates granted very different end results that could even make a difference between having an impairment or not. In critical cases, top level management would get involved and would need to be convinced about the judgments explicitly.

For critical cash generating units we provide special interest rates. (…) For uncritical cases we do not ask for additional documentation, we settle for the budgeting comments.

Valuation expert, support unit, group HQ

The valuation expert here hints at two aspects in relation to critical CGUs. Firstly, group HQ provided lists with discount rates per country and business area. However, for critical CGUs even more effort was made to prepare special interest rates. Secondly, group HQ in general required little information from the operational units to explain their applied growth rates for the two years of cash flow forecasts over and above the budgeted cash flows (see also the next section) and the terminal value. The explanations and assessments contained in the budgeted reports served as documentation for expected growth trends. However, if an impairment was more likely, the case was given more attention. Operational units then had to argue for their chosen growth rates, particularly, if they did not follow historical developments. Group HQ would seek possible grounds for abnormal growth rates. If an impairment could not be prevented, group HQ wanted to be prepared for and informed early about the overall effect in the group accounts.

Under most circumstances, the *group accounting team* would act as spokesperson for the group CFO and the board, which made the team the third key ally in the actor-network creating relevance for the number. While the group CFO had to give the final approval, his concern remained exclusively with the critical cases. In such cases, the group accounting team, the group finance section and the group CFO would closely work together to assess and argue for different assumptions and calculative outcomes. The group accounting team, however, had a special role: because the team received all initial impairment calculations, they were responsible for summarizing and superimposing them with the consolidated final figures of goodwill and impairment. All communication with group level management was conducted in correspondence with the finance section. However, the finance section was only an intermediary between the group accounting team and the board of directors with respect to the final number of impairment. As shown in the analysis below, the finance section nevertheless mediated the number because they helped to prepare the discount rate and were a general source of information regarding markets and market developments. Especially in critical cases, the finance section would help the operational units to argue for their assessments, creating legitimacy for the presented growth rates.

The following section analyses the actions taken to convince these actors about the validity of the calculations, creating a network that would give enough life support to make the number relevant and let it circulate.

5.6.2 Interessement and enrolment of the key allies

Integration work as enabler: building on stable ground

The first step in the spreadsheet tool was to assemble cash flow forecasts. The first three years of cash flow forecasts were fed directly into the calculation tool via a connection to the budgets in the management reporting database. As discussed in chapter 4, the integration of management and financial accounting was not just a matter of matching accounting systems. Enrolling the divisions and CFO to the idea of IFRS and a close link between financial and management accounting was aimed at generating compliance with the standards also for management accounting purposes. This equipped management accounting with a new quality and respect. Agreeing upon concepts like result, performance and economic value added also helped to communicate across institutionalized boundaries, making them rather loose couples in the relation to value and evaluation. In the context of goodwill accounting and impairment testing, the shared understanding of things created through integration work and the perceived quality of management information played an important role in the legitimization of the impairment calculations.

As soon as the respective CGU was defined in the spreadsheet, the information in the management accounting database would be automatically extracted and reorganized in order to match the CGU. The budgets that built the basis for the valuation were prepared by the more than 1,000 companies[31] and negotiated with the respective divisions and the group HQ. This negotiation was termed a 'strategic dialogue' as it was understood to make a connection to strategies developed between divisions and group HQ. Despite a decentralized structure of the group, respondents clearly realized the limitation of the types of business areas that were appropriate for attention and investment. Divisions in dialogue with group HQ defined the overall strategic direction of the group. The operational units, therefore, in theory had total freedom to decide about investments and trends for future growth, however, if these plans did not fit the overall strategy, the intended business areas per division, the investment would not be funded. The operational units, thus, had to move within this given frame.

Nevertheless, all investment and growth ideas were initially triggered by the operational units. The strategic dialogue, therefore, was a platform in which ideas were expressed and negotiated. It prepared divisions for the ambitions of the companies and vice versa. The respondents further explained that even group HQ would be involved at some level to prevent future surprises. Overall, the strategic dialogue around the budgeting process was a time consuming affair because of the extended, some would say "on-going", interaction

[31] It is a coincidence that there are both about 1,000 companies and about 1,000 CGUs. Some companies did not have goodwill. Neither did the definition of CGUs necessarily follow the legal structure of the operational units.

between group HQ, divisions and operational units to seek assurance that board members' expectations and the companies' expectations were not only related but brought in line with each other. Through the close link between financial and management accounting in the group, IFRS were able to gain entrance into these strategy talks. In the example of goodwill and impairment, this was the case whenever a CGU was considered to be critical.

> *[During the budgeting process] it can happen that the board of directors does not agree with the expectations (…) and requires further analysis. But otherwise the expectations mirror each other. (…) The planning process is monitored closely by top-level management. What do you call that? Bottom-up/top-down planning: firstly bottom-up, but then also top-down, so that all opinions already are taken into account accordingly. (…) In critical cases, where an impairment loss is involved, of course the board of directors gets involved early in the process. This does not work on last second, so as to surprise the board of directors.*
>
> Valuation expert, support unit, group HQ

While in general, a major part of the strategic discussions was conducted between the divisions and their companies, a potential impairment would involve the group's board of directors – represented by the group CFO – more closely in the discussions. Potential impairments therefore would influence the expectations that would be valid within the management accounting arena. This is not to say that at these stages the aim was necessarily to prevent an impairment.

> *In general, the divisions and the project leaders, as far as I can assess, are mostly driven by their key performance indicators. (…) Surely the board of directors is also concerned with the external appearance, which means: when can we best carry an impairment? (…) In years where everyone knows that business was bad, the market expects you to have impairment losses. (…) And benchmarking is important as well. "They have impaired so much and we do nothing. Can that be right?"*
>
> Valuation expert, support unit, group HQ

The integrated accounting system, thus, enabled managers to flow back and forth between concerns of statutory reporting with its 'external appearance' and management control issues like performance measurement and planning the future for the business. Strategic concerns became intermingled with a tension between compliance, motivational budgets and representational requirements (see also chapter 6). Essentially, budgeting was a serious affair and there was significant attention paid to the budgeted numbers from many different parties. Towards the end of the strategic dialogue, the budgeted numbers were accepted not only by divisions and group HQ; but also by the supervisory board and – in the context of impairment testing – by the auditing committee.

Given the strength of the budgets in terms of legitimizing reference, impairment calculations drew routinely on the budgets. They were understood

to be thoroughly negotiated and accepted by many, which constructed them as a good proposition for the future of the firm:

> *In the example of impairment testing, the budgets clearly come from the divisions. (…) We can pose a question here and there, but most of the time the planning process has progressed so far that when we get the impairments, year one to three are relatively fixed. (…) Most of the time it is the already approved planning, which is anchored quite high in the hierarchy, and has been thought about by many people already.*
>
> Valuation expert, support unit, group HQ

The statement of the valuation expert in the group HQ who was responsible for preparing the final impairment figures and monitoring the impairment process confirms how objection to approved planning was difficult. Because of its thorough negotiation, where the different interests of the group, the divisions and the operational units had to be translated in order to agree upon the final figures, the budget was able to resist objection even from someone knowledgeable like the valuation expert. The person speaking here was part of the support unit in the group HQ and therefore had a good overview of the management reports and the individual businesses. The person would thus have been well equipped to object; however, the network around the figures was too strong to challenge. Matters of concern had become closed into matters of fact (Latour, 2005). The numbers of the future were considered to be "realistic".

The close interplay between financial and management accounting fostered by IFRS mediated this process of closure by preparing a forum that made information flow possible. Financial accounting matters like impairment testing were frequently part of management concern. Moving back and forth in different practices like accounting, financing and management during the strategic discussions was possible because integration work had produced a shared understanding and language amongst managers, controllers and financial accountants. Integration work also gave strength to the management accounting figures in relation to the auditing process because the importance of compliance in the organization and the 'will to get it right' in relation to financial accounting requirements convinced the auditors that the expectations about the future were realistic and acceptable in their quality. The budgeted figures that built the basis for the first three years of cash flow forecasts were therefore able to convince the three key allies: the group accounting team, the group CFO and other board members, as well as the auditors. However, the approved budgets only covered three years of forecasts. In addition, the calculation tool required propositions about years 4 and 5, as well as a terminal value and the discount rates. In order to enrol the different allies to the expectations about these figures, the group developed three different strategies. In addition, a practical need for closure fostered the process.

Strategy 1: linking the future to the past

The fair value calculation for impairment testing required the following: five years of cash flow forecasts, a terminal value from the companies, a WACC calculation and additional adjustments to the cash flows. Additional information in relation to the cash flow adjustments was provided by the group accounting team and the group's tax unit. These figures were no matter of concern because they were either related to readily available market information like tax rates, or derived via clearly defined calculative requirements like the deferred tax calculations or the amortization on asset step ups from revaluations within prior PPAs. During the investigations, no dispute or traces of negotiation could be found in respect to these figures. Strategies of persuading allies, however, were relevant in relation to the additional cash flow forecasts from the companies and the weighted average cost of capital. While strategy one and two are exclusively concerned with the presentation of cash flow forecasts, the negotiation of the discount rate is taken up in strategy three. Providing respectable judgements about the future was not a trivial task.

> *If you ask me now about my personal judgment, I feel that it [IFRS] makes more work. Whether it be a purchase price allocation or an impairment test, which both are particularly time consuming because we have to go back to our closed planning and look at it again. (…) Our planning stops after three years. And in impairment testing I have to say that this actually is not enough. Then I need to go back and do something that I usually don't [forecasting two more years]. And I can't even do this to that level of detail. (…) We have to make assumptions and our experience from the past shows that we have not been very successful in doing so.*
>
> Head of controlling, OU 1, division B

This controller elaborates on how difficult it was to assess the future over and above the budgeted expectations. It appeared hard to convince even themselves about the additional cash flow forecasts. Most controllers explained during the interviews that in their line of business, it was difficult to even present three years of forecasts with relative certainty. Most local control was built on one to two years of future assessments. It is interesting to mention here that IAS 36 does not explicitly require five years of cash flow forecasts. Instead, IAS 36.33(b) permits a maximum of five years of forecasts, unless a longer period can be justified. The organization, thus, could have chosen to define a tool based on only three years of budgeting information. However, the tool was 'black boxed' at a different time and space. The design of the tool was developed together with external consultants during the time of IFRS implementation and showed strong evidence of the benchmarking practice in Germany at that time.[32] The integrity of the tool ensured the faithful

[32] In the initial phases of IFRS implementation, consulting firms were highly involved in creating different tools and helping companies to become compliant. In my work as an IFRS consultant, I had much contact with such tools, including those for impairment testing. The general

representation of the number and therefore remained unchallenged, despite the problems of providing five years of forecasts. Instead, other ways had to be found to convince the different actors about the legitimacy of the additional cash flow forecasts.

Persuading others in such uncertain positions required strategies. The most effective strategy in the realm of financial accounting was to rely on the past, i.e., showing *normal* developments and growth. In fact, IAS 36.33(c) clarifies that a company shall

> (…) estimate cash flow projections beyond the period covered by the most recent budget/forecasts by extrapolating the projections based on the budget/forecasts using a steady or declining growth rate for subsequent years, unless an increasing rate can be justified.
>
> IAS 36 *Impairment of Assets*, Par. 33(c)

Binding the future expectations to the past was a very effective way of enrolling the auditors, who would be framed by the standard requirement to have a steady or declining growth in the extrapolations of the budgets. Moreover, because the auditors were such an important party in legitimizing the calculation, group HQ were strongly framed by this view as well.

> *For year four and five the divisions and companies make a suggestion. Then we look it over to assess whether it is acceptable or whether we need further documentation on how these goals will be achieved. If we, for example, have relatively flat years one to three, an increase in year four and five would be questionable. If everything follows a more or less straight line, it is plausible and we would accept it because we can't know better ourselves.*
>
> Valuation expert, support unit, group HQ

Linking the extrapolation to previous figures therefore would convince. Interestingly, the 'past' in this respect was still in the future, budgets were still forecasts. However, budgets were a reference to the past in the sense that they had been closed, they had been negotiated in the past and all parties had been enrolled. There was a time lag between impairment testing and budgeting which made the budgets considered the past. As the controller explains above: "we have to go back to our closed planning and look at it again". Budgets were a circulating reference that could be mobilized in the calculation. In addition, the budgets themselves were bound to the past. Not only because in the integrated system, top level management was also framed by financial accounting considerations, but also because the bonus systems of the individual managers were bound to the budgets and would motivate them to be modest in their

understanding within the auditing firm I worked for from 2005 to 2007 was that five years of cash flow forecasts was the benchmark and therefore the tools were designed accordingly. The contingencies in the individual companies therefore had little influence on the creation of faithful representation in the context of these calculative practices.

expectations. Therefore, extrapolating the past with simple and *normal* growth rates under most circumstances appeared to be the best solution.

Following this strategy would mostly yield expected cash flows that were able to enrol the key allies. To enrol the group accounting team for the calculations was the first step in legitimizing the values. To ensure agreement on impairment calculations and to assess the forecasts, the various impairment calculation sheets were collected by the group accounting team and were subjected to a series of quality checks. If the calculations and assumptions were accepted by the group accounting team, they needed to enrol the group CFO/board of directors and the auditors.

The group CFO had to agree on the impairment calculations. In cases of disagreement, the calculations were adjusted by a 'central risk'; interviews suggested that CFOs had reversed the calculation of impairments in the past:

> *Several authorities, of course, in the end have a say in the calculations; not only the divisions and we in the headquarters, but also the opinion of the CFO. It is totally clear: the CFO has the final decision. Or, what also happens sometimes is that we get a discussion with the unit CFOs. Or even the CEOs. (…) Normally, the calculation will be accepted as it is, but sometimes there are different interests at stake, which you have to take into account. And, of course, the auditors. (…) But you also have project leaders. (…) They are partly even below the units or the divisional CFO. And also the CFOs of the respective countries sometimes get involved. (…) Because they also get measured based on it.*
>
> Valuation expert, support unit, group HQ

Many interests had to be translated in order to agree upon a number of impairment, even if the expectations about the future were bound to the past and remained normal. The group CFO was in charge of the process as a whole, but because of the dispersed calculation, the strength of the calculative centre, his power was not sovereign. There was a complex final decision to be made because there were many interests at stake and many had to be enrolled in the decision. The CFO not only had to ensure the commitment to the calculation from many parties; the CFO had to defend the impairment value publically and was the impairment value's spokesperson to the world outside of the organization.

> *In the end, the CFO will most likely need to have the last word because he represents the decisions outside; because he has the responsibility for the annual report. How exactly the decision comes about, well different opinions are at stake, but so far there has always been a unified decision in the end even if there were differences at the outset. In such cases, additional data is requested. How are the exact figures reached? How realistic are they? Let's get some further external sources. (…) And when all the figures are on the table, they also look at the past. Did we ever reach the level that is*

requested in 2012? And whether or not we reached the level before. Then so far people always said: ok, let's do it – or not.

Valuation expert, support unit, group HQ

CFOs had to be 'realistic' in the sense that the calculations in his eyes had to convince analysts, rating agencies and shareholders. To convince others, CFOs had to convince themselves that the values were defendable; this required CFOs repeating the whole procedure of calculation and attempting to make the dilemmas, that would always arise, less cumbersome and less critical. Auditors were part of the process of making the calculation realistic. They helped to carry the calculated values across the organizational boundaries. They did so by assuring the integrity of the process rather than the actual figures. Auditors helped the integrity of the impairment number but not its value because so many things were delegated and only arrived to the auditor through the IT tool and supplementary documentation.

In principle, it was possible to deviate from *normal* growth expectations. However, such a move would evoke resistance from the auditors and from the group accounting team, speaking for themselves and the board of directors. To persuade and enrol these key allies to extraordinary expectations was time consuming and took a lot of effort, as the next section reveals. However, a strong link to the past was not possible under all circumstances. The financial crises presented a circumstance in which it was impossible for the group to re-present the future with the past. A break with the past development became necessary, which is presented below as the second strategy.

Strategy 2: negotiating abnormal growth, breaking away from the past

To deviate from the *normal* expectations was to open up a Pandora's Box because it would open up negotiations about what the future could and should be. Objecting to the normal development was to object to the centre of calculation and its interests. Without a connection to the past, different references or in Latour's (1986b, p. 18) words "cascades of inscriptions" were needed in order to convince others of individual judgements.

New references had to be built that would extend the knowledge of the situation. This would include market assessments, peer benchmarks, specified future investment proposals and differentiated or inconclusive historical developments. To convince group HQ and later auditors that the future would not be a linear extrapolation of the past or the immediate future, companies and divisions had to invest significant resources in persuasion by finding new 'documentation' as it was called. The head of corporate finance at group HQ explained how, in the context of the financial crisis in 2008 where "the world broke down", his team was involved in helping individual companies and divisions to convince auditors about *abnormal* growth rates.

The planning came from July 2008 for the budget 2009. If the world breaks down, no one knows where the journey will lead you and therefore the planning was very pessimistic. (…) In such situations we are the fire brigade and help our colleagues with our expert knowledge. We have very good and early contacts with our banks, which also help us to prepare presentable and convincing arguments, where we use long term analysis in order to show that the current valuation is unique. That we can see tendencies and therefore can use different growth rates. (…) In the end, we produced a book with 25 pages where we reflected upon our impairment test from different angles. (…) But, we managed to convince our auditors of the enormous growth rates. Therefore it never came to impairment.

Head of corporate finance, group HQ

To enrol group HQ and later the auditors, new references needed to be created. Added documentation included betas and market expectations which were supplied by external market research institutions. Also the close insider contact with banks and capital markets in general helped the authority of the finance section to gain credibility. As with the calculation sheet (see section 5.5), *dispersed calculation* enabled the team to created strong references. Information from many different sources needed to be collected, each contributing a part to the puzzle. Then this information was combined and superimposed with power point presentations, graphs and spreadsheet tables. Additionally, inscriptions originally prepared for other uses were re-worked and mobilized, like analyses of long- and short-term trends which connected companies and divisions to their historical past. Thus, some aspects of the past had to be included in the mobilized inscriptions. However, this was done in a much more indirect way. Instead of reflecting the past in the future, the aim was to show an inconclusive past that would enable the other inscriptions to present a different future.

Dambrin and Robson (2011) find that the broken chain of transformation between drug reps actions and their performance measurements was bypassed inter alia by a *bricolage* of many different stable, mobile and combinable inscriptions (Robson, 1992) that would confirm and 'triangulate' the individual self-statements of the drug reps, helping the performance measure to act at a distance despite uncertainty of the relation between organizational substance and measure. Combining and superimposing different inscriptions was the mechanism that made things auditable (Power, 1996) and the combination of many different forms allowed for interaction and triangulation to appear (Justesen & Mouritsen, 2009).

Unlike in the case of the drug reps self-assessments, for the study at hand, a bricolage and triangulation of information based on organizational internal pre-existing inscriptions was not sufficient. The spread in responsibility for the different calculations and re-presentations had to include parties from outside the organizational borders like banks, analysts and market research institutions. Organization external valuation experts were necessary to create a *network of*

trust (Power, 1996) that was able to make things 'auditable', i.e., creating legitimacy of the judgements. As Power describes it:

> In this way the auditability of problematic things is ultimately accomplished by an *externalization and proceduralization of the evidence process*, a specific style of delegation to credible experts which is a mixture of trust and verification. [Emphasis in original]
>
> Power (1996, p. 307)

Power describes this network of trust from an auditing perspective and how auditors solve the puzzle of confirming and, thus, legitimizing valuations they are unable to prepare themselves. The same reasoning, however, was also found within the organization, enrolling other allies. It is important to highlight that the trust referred to by Power could not be created within the organization alone. The creation of values of the future had to build on a network that de-personalized the valuation on an organizational level.

One explanation for the predominance of the auditing perspective in the enrolment of the group HQ was the awareness of all parties that without the auditors' approval, the valuations would need to be renegotiated. The head of corporate finance continues with his explanations:

> *They [the auditors] fight long and sustained. I always try to provide a lot of information which they need for internal assurance. (…) I understand this. It's their job to be critical. And therefore I write and document a lot. I know exactly what they need for their internal documents. That's fine, the more they get, the calmer they are. Without looking closely, whether what I provided is relevant for the solution or not.*
>
> Head of corporate finance, group HQ

Auditors and the procedures during the auditing processes in the case group were anticipated in what Power termed a 'pre-audit audit' (Power, 1996). The quantity of references mobilized in this context was just as relevant as the quality in the sense of a defined relationship between the actual judgement on future developments and references provided for the assessment of these judgements. Documentation was an ambiguous resource, however. Boards sought condensed information while auditors requested quantity; documentation and propositions about growth rates piled up via even more documents indicating and arguing for/against market opportunities, competition and economic development in different graphs and tables presented via PowerPoint presentations, written texts and even verbal accounts. Taking this route of valuation – trying to detach the future from the past –was therefore a costly and tiring affair that involved many trials of strength and required help from any different allies.

As described above, this strategy therefore could not become successful without the help of group external parties. These external professionals created

trust and legitimacy through their institutionalized roles and through strategies of mystification (Boland, 1982).

Strategy 3: methodological opacity and mystification

The impairment test required the determination of net present value, as the spread sheet tool stipulated, and therefore there was a need for a discount rate, the WACC. This was calculated by group HQ's finance department but supervised and assured by consultants from a Big Four auditing company.

> *Essentially, he [one of the staff members] has all the betas of the world, so in principle we could calculate it [WACC] on our own. However, we take help from a consulting firm in some sort of pre-matching, so the consultants refine the information that we then present to our auditor. It has different persuasive power, argumentation strength if you will, if another auditor has prepared the information as compared to me and my colleague. Of course, we set some sign of quality as well, but it is better, if it is also signed by an auditor.*
>
> Head of corporate finance, group HQ

The external consulting team gave strength to the valuation. Their substantive knowledge may not have been more significant than that of the group HQ finance department but it was external and it was trusted by auditors who later had to assure the impairment value. External experts had experience and network (Glückler & Armbrüster, 2003), expertise (Morris & Empson, 1998), image (Power, 2003) and access to banks, analysts, and market research institutes. They were understood as distanced from organizational politics and subjectivity and were therefore able to confirm the network of trust (Power, 1996) required to confirm the number.

Moreover, there was a particular aspect in the legitimization of the calculations that was felt during the observations rather than in explicit reflections of the respondents. *Methodological opacity* (Dambrin & Robson, 2011) was a key driver of acceptance. In relation to the impairment calculation tool, very few people in the organization were able to understand the individual steps of the calculation. The auditors and the experts of the group accounting team were familiar with the procedures, but even these parties were not involved in all details of customization of the tool. Several people referred to their role in the process as "one part of a big wheel", where the individual positions were clear in terms of working tasks, but unclear in relation to the overall purpose. However, to really understand the role of external parties in the overall goal of enrolment of the group HQ and the auditors, the concept of methodological opacity needs to be formulated even more strongly, complemented by the idea of *mystification* of actions and representations (Boland, 1982).

While Latour (1999) claims that objectivity arises if the chain of transformation between matter and form is completely transparent and truth is able to travel back and forth, in the case group it was important that

consultants' work and actions were *not* made transparent. When the future is involved, transparency about the transformation into the number hinders acceptance instead of encouraging it. Boland (1982) describes this phenomenon in relation to the accounting profession in general:

> The myth that a profession possesses a special wisdom with regard to certain moral mysteries establishes its control over a domain. Searches for rational justification within the domain lead to the development of checklists. These official codifications of folklore become the recognized techniques of the profession.
>
> Boland (1982, pp. 120-121)

Part of the consultant's and auditor's institutionalized respect and legitimacy was due to their complete silence as to how exactly their judgements came about. In the case of a challenge, these parties would provide countless inscriptions and visualizations of markets, however, the final calculations of betas and adjustments commonly remained a mystery.[33]

In order to "genuinely believe" in the calculations (Chua, 1995, p. 132), the dispersed calculative practices around the fair value calculations therefore had to include external parties, internal spokespersons and countless immutable mobiles that were combined and superimposed to re-present a world that did not yet exist.

Practical need for closure as enabler: organising the world

Inscriptions not only constrain but also enable activities (Dambrin & Robson, 2011). Principally, negotiations in cases of doubt could go on without ever finding an agreement. No one can know how the future might look and the different parties involved are driven by differing, potentially opposing interests.

However, without closure, financial reports cannot come about; due to the systems matching this would also prevent the preparation of management accounting information. Therefore, from an organizational perspective, not ending the negotiations was not an option. The world needed to be organized in numbers in order to create the space in which the operation could perform. Even in times of severe trials of strengths, in the end there had to be a unified voice, supporting one number *of the* future; making it a matter of fact.

Although not in the focus of this study, a similar dilemma was faced by the market participants. Everyone would agree that the future is a mystery, but financial markets cannot exist without financials. Some version of the future

[33] I would like to complement these observations with my experience as an accounting consultant because it shows that this appearance was not specific to the case group. As consultants, we had strict instructions to only communicate the necessary details. Firstly, in order to not lose the client for future consulting projects and secondly because it would have shown that there was often little more information available than the information already in place in the organizations. Even within the auditing company, different teams often would not share their methods and practices, in order to remain experts in their particular fields.

therefore needed to be accepted as relevant, and thus, decision useful. While Dambrin and Robson's (2011) study focussed exclusively on the practical actions of the drug reps and their acceptance of imperfect numbers, this study shows a wider understanding of the practical need for closure and structure. Inscriptions in the annual reports enable markets to make decisions, and thus, to perform. The *users* of the imperfect number also need closure, not only those who are measured by them.[34] This simple but effective need for closure enabled the network that constituted the fair values to create legitimacy in an uncertain world, building on the dispersed practices and integration of different accounting disciplines in order to build a circulating reference that could travel across boundaries.

5.7 Discussion

This chapter responds to the question of how a 'fair' value is constructed. To explore this question, the chapter takes Latour's (1999) notion of circulating reference as a starting point to problematize how certainty and stability of a circulating reference can come about under uncertainty, where the chain of translation between matter and form is broken.

For IFRS to act in the financial markets of the world, the financial information that is produced in their name needs to be able to create circulating reference that is agreed upon to be decision useful. Fair value accounting in the context of goodwill impairment testing has distinctive elements that enable an investigation and exemplification of such undertaking. Fair value for goodwill impairment testing results in the highest possible uncertainty about the future because goodwill neither represents a particular asset (intangible or tangible) nor creates future cash flows on its own. There is only judgement from the moment the organization decides to invest. No liquid markets or comparable investments exist to underpin the presented values.

Essentially, fair value is an 'imperfect measure' (Dambrin & Robson, 2011) because a chain of translation between matter and form, between organizational substance and its re-presentation through different forms of inscriptions, starts in the future, with matter that has not yet materialized. Fair value therefore requires organizations to substitute the future with a number, to define a value *of the* future. How can a circulating reference be built under such uncertain conditions?

Recent literature on imperfect measures acknowledges the possibility of circulating reference despite a corrupted chain of transformation. Dambrin and

[34] In many respects, financial information in the annual report can be understood as the basis of performance measurement. The difference from the traditional performance measurement literature lies in the fact that the performance of the organization as a whole, their segments or individual projects, like business combinations, are evaluated rather than individual people and their activities.

Robson (2011, p. 446) find that the chain connecting matter and form in their study was a 'fiction' whose ability to travel was bound to four mechanisms: ambivalence in professional identity, methodological opacity, bricolage and practical actions enabled by the mobilized devices. With the help of these mechanisms, the circulating reference was able to bypass the gaps that made it impossible for sceptics to travel back along the chain to the activity of the drug reps. These mechanisms are taken as a starting point of analysis about fair values and their weak traces and for the discussion in this section. However, the case presented by Dambrin and Robson still builds on the idea of a chain, of a sequence of activity, object and inscription. There are different performance measurement devices, but they are building on each other in a chain of transformation. In the case of fair value, such a chain cannot exist because there is no matter to be represented yet. Reduction needs to take place, but there is no sequence, instead, the calculative practice that produces a fair value collects many parallel calculative practices in one centre of calculation. The group HQ as centre of calculation needs to mobilize its star-shape and its many ties inside and outside the organization to create numbers that are faithful and relevant.

Justesen and Mouritsen (2009) find that the inscriptions re-presenting the future gain relevance because they are able to tie together the interests of many different allies within the firm, governing action in different areas of the organization. This importance of tying together interests from different allies in a network that gives life support to the number is also reflected in other studies concerned with problematic performance measures (Briers & Chua, 2001; Chua, 1995). Central to the tying of interest via inscriptions are the combinability, stability and superimposablity of these re-presentations (Robson, 1992) enabling the amplification of the reference.

These aspects can be confirmed by investigating fair value as a circulating reference. The study at hand contributes by taking accounting as an integrated practice seriously. Not only need the traces of the reference be made up by different inscriptions with other re-presentations, dispersed calculation is also a central concern in the construction of the number. The network that carries the number needs to be wide and it needs to cross institutionalized boundaries within and around the organization. Only by including external experts, can the number prevail (Chua, 1995; Power, 1996).

By bringing the mechanisms highlighted in prior literature into the context of *integrated accounting systems* that seek to define a value of the future, the study opens new aspects of these mechanisms and complements them by putting particular emphasis on the role of integration and dispersed calculative practices in the process of enrolment. Contrary to claims that a link between financial and management accounting could harm the objectivity of the numbers (Zamon, 2011), the study finds that financial accounting benefits from the close ties. Constructing legitimacy would not be feasible with a smaller network and integration enabled the crossing of boundaries. The close interplay between

different accounting disciplines created a shared understanding of values, enabling communication and agreement in different contexts.

The case also shows that the *faithful representation* of a measure is constructed to a large extent by accounting technology that is taken for granted. Its integrity remained undisputed even when uncomfortable because it was black boxed (Latour, 1987) at a different time with the help of organizational external experts who were able to legitimate the defined calculative practices in the tool (Chua, 1995; Power, 1996). *Creating relevance* for the number, however, was to convince the group accounting team, the CFOs and the board of directors as well as the auditors of expectations about the future that, in essence, had no substance.

In particular, this chapter finds that a circulating reference is created with the help of three enabling mechanisms and three strategies of persuasion. The *three enabling mechanisms* found in the investigation are 1) dispersed calculation collected in a new centre of calculation via the impairment testing spreadsheet; 2) the integration work that enabled communication and quality of management accounting information; and 3) the practical need for closure not only by those that are measured in the number, but also by those that mobilize the number for their evaluations and decision making. The *three strategies*[35] adopted were 1) a re-presentation of the future with the 'past'; 2) a breaking free from the past at times when the past is unable to provide a future for the firm; and 3) methodological opacity and mystification of the chain of transformation.

Building on the discussion in chapter 4, *integration work* in the case group enabled the calculated impairment numbers to become both faithful representations of the values as well as relevant representations of expectations of the future by providing a stable ground for departure. Dispute about forecasts could travel between different disciplines like financial accounting, control, finance and management because the group had managed to create homogeneity in definitions and valuation methods. Additionally, the interplay between financial accounting standards and management accounting requirements constructed an enhanced reliability of management accounting. The budgets included in the impairment calculations were therefore undisputed and helped to construct the calculated outcome as 'fair'.

Integration in this respect was closely linked to the second enabler: *dispersed calculation*. The more parties that were involved in the calculation of the number, the more interests could be tied to the outcome, a central mechanism to create a strong network that could carry the number (Briers & Chua, 2001; Chua, 1995; Justesen & Mouritsen, 2009). Integration work helped to spread the network across institutionalized boundaries because it produced a shared understanding and language that was bound to IFRS notions of value rather

[35] The term strategy implies a certain level of rationality in the behaviour of the actors, which might not always be the case. However, the statements presented in the analysis show such awareness and imply conscious actions towards the persuasion of other allies.

than organizational structures. Different systems could be connected with automatic links, persuading allies like the auditors that the risk of errors was minimized. It also gave credence to the management accounting information. For goodwill accounting in particular, the integration work made impairment testing a matter of concern for the management. The awareness and will to balance the tension between compliance and market representation ensured the auditors that the legal frame formed by the standards would be guiding the strategic discussions that made up the budgeting forecasts. Budgeting information therefore built a stable ground for cash flow forecasts despite the fact that these figures themselves represented an uncertain future.

The third enabler that helped the acceptance of the number was the *practical need for closure*. Preparers as well as users of financial information were not able to perform their daily activities without financial accounting information. Dambrin and Robson (2011) show this enabling quality of inscriptions in relation to the enrolment of the drug reps:

> ETMS is not simply a device for inscribing their activity and rendering visible their actions to their significant others, but it is a necessary component of their ability to perform their tasks (it enables them to "do [their] job efficiently"). Without ETMS, drug reps would lack the capacity to visualize and organize their tasks, contact doctors in their 'patch' and co-ordinate with colleagues in their team.
>
> Dambrin and Robson (2011, p. 443)

The inscription device organizes time and space, enabling actors to perform and at the same time it governs their activity (Frandsen, 2009; Justesen & Mouritsen, 2009). Through this, it is possible to translate interests, binding the allies to the network. While these studies present inscriptions as an enabler of enrolment because they enable practical actions within the organization, the case at hand shows that the enabling of activities was also able to tie the interests of those outside the organization that would evaluate the performance, the users. Auditors for example were aware that there could be no 'truth' in assessing the future. However, without agreement their audit could not be closed. Financial market participants like analysts and rating agencies frequently take into account information about impairments as an indicator of performance and the firm's ability to make and mobilize investments.

Furthermore, when taking into account different areas of accounting, it becomes clear that the number might not be necessary to enable the daily work of the operations managers, who could in some respect be seen as a parallel to the drug reps. Financial accounting notions of value give but one way of summing up the organization. However, the number was important to structure the financial accounting activities and because of the strong link between financial and management accounting, it also became important on an operational level (see also chapter 6). Thus, this study contributes to the body

of knowledge by refining the number as an enabler of practical action by taking into account the perspective of the user.

The case further shows three strategies followed by the network in order to convince allies of future expectations to create relevance, letting the number travel across contexts.

The *first strategy* was to bind the future to existing circulating reference, combining, comparing and superimposing existing inscriptions that were produced for other purposes, providing them with a new use (Briers & Chua, 2001; Justesen & Mouritsen, 2009; Power, 1996). Mobilizing historical information to re-present the future bound the expectations to a commonly accepted ground. One interesting finding in the case group was that the undisputed past included the near future in the budgeted forecasts. Because of the time lag between creating the budgets and preparing the impairment tests, budgeted information was able to become a strong reference for the future, although the budget itself re-presented expectations. Central to this phenomenon was the extensive negotiations the budgets had gone through during the strategic dialogue and the integration work discussed above. The indirect link to compliance and financial notions of value granted quality to the budgeted information.

The *second strategy* involved objection to the past and, thus, objecting to the centres' expectations about the number. Breaking away from the past to persuade actors of abnormal returns is a strategy found in the organization that has not been mentioned in prior literature concerned with the inscription of the future. However, it holds an interesting implication. When abnormal returns turn into a fair re-presentation, earnings management acquires a deeper theorization because abnormal might not be equal to opportunistic behaviour but a matter of closing concern about the future. To enrol the key allies to support the proposed growth rates then could not be achieved through the re-use of organizational inscriptions alone. To justify abnormal growth rates that would break away from the past, cascades of inscriptions were necessary. These inscriptions had to include existing references as well as new inscriptions and visualizations stemming from outside the organization. The triangulation of expectations in a *bricolage* (Dambrin & Robson, 2011) of different inscriptions played a major role in the process of persuasion. *Integration work* here enabled communication and circulation of the different references across organizational boundaries. However, information based on organizational internal pre-existing inscriptions was not sufficient to enrol the auditors and the group HQ. Instead, a network of trust (Power, 1996) needed to be created by anticipating the information needs of the different allies and presenting them with inscriptions and verbal accounts of external valuation experts. *Dispersed calculations* here again were a central mediator in creating legitimacy because they decoupled the outcome of the valuation from individual interests even on an organizational level. Although officially responsible, neither the group CFO nor any other party in the organization was able to command the whole process.

The *final strategy* observed in the case was followed independently of whether the companies chose to follow the pressure of normal growth or tried to break free of it. In the case of 'abnormal' expectations, this strategy would be an indispensable mechanism to enrol the group HQ and the auditors. Dambrin and Robson (2011) present the concept of *methodological opacity* to describe the uncertainties and opaqueness connected with the calculative practices that constituted the performance measurement systems.

> By obscuring the lack of any trace in inscriptions, methodological opacity assists in enrolment.
>
> Dambrin and Robson (2011, p. 441)

In order for the drug reps to believe in the calculations, it was important that they did not understand them. In the case of the pharmaceutical industry, the uncertainties about the calculations stemmed from the many contingencies that constituted the calculations. In the case group of this study, uncertainties about the impairment calculation existed in the sense that very few people in the organization were able to understand the calculation of the fair value as a whole, including all its different elements.

However, the case at hand also gives the chance to complement the concept of methodological opacity, challenging Latour's (1999) idea of a reversible, transparent chain even further. The opacity of the calculation tool itself was only one part of the aimed cause to enrol the different allies. As described above, the ambivalence of the future expectations, at times, could only be solved by including external valuation experts. Through the mystification of their practices (Boland, 1982), external valuation experts were able to create trust in the number of the future. This is in fact an interesting opposition to Latour's (1999) strong claim about the reversibility of the chain of transformation. If the future is involved, the chain needs to become 'fiction'; it needs to become a 'myth' in order to perform. As soon as all processes in the development of the number become transparent, the reference may in fact cease to re-present in a relevant form.

Overall, this case shows how a circulating reference is built despite a lack of a reversible chain of transformation and a lack of sequence in activity and inscription. The different strategies followed by those who contribute to the calculation and the enabling circumstances that build a ground for enrolment of the relevant allies become visible when stepping away from a-priori distinctions between different accounting disciplines, opening up existing knowledge on the construction of circulating reference to the idea of integration. The chain of transformation in the context of fair value accounting can never be a chain or a sequence. Many things happen at the same time in different spaces or at different times in the same spaces. Instead, the number has to be seen as a star-shaped entity (Latour, 2005) that draws together different interests, collecting mediators flowing in and out of it in the process of dispersed calculation.

5.8 Conclusion

Impairment testing practices in the case group drew together traces and records that constructed a number *of the* future. The impairment value took the place of the future, which literally was not there yet, via the calculative practices it mobilized. Latour's (1999) claim of a reversible chain of transformation between matter and form that can create objectivity of the scientific act becomes inverted in the case of fair value accounting, where mystification of particular calculative practices is necessary in order to create a circulating reference. If the future is involved, the chain needs to become 'fiction', collecting and summarizing many inscriptions that are combined, compared and superimposed in order to create trust in the expectations of the value of the future. Instead of representing a reversible chain, the reference needs to become a star-shaped entity (Latour, 2005) gathering many different mediators to become a value that is able to circulate.

While other studies have acknowledged the existence of imperfect numbers (Dambrin & Robson, 2011; Justesen & Mouritsen, 2009; Power, 1996), this study contributes by taking into account the particular role of integrated accounting systems and its specific requirements in relation to a reference that is *allowed* to travel. It is not enough to create a network by persuasion alone, there are legal frames that need to be fulfilled. Not any shared understanding of value will be able to become a circulating reference, independent of how many actors within the organization are willing to carry the idea; to circulate as a financial accounting number, the number must be decision useful. To become decision useful, it must represent the future faithfully and it must create relevance within a wider network.

IFRS' command over the centre of calculation in relation to goodwill impairment is expressed in a particular descriptive device. The standards are materialized by a specific spreadsheet which both calculates and organizes. The tool defines the impairment values that end in financial reporting. It calculates impairment values by summarizing and calculating on records and traces developed elsewhere, drawing together multiple calculators who are situated across space (Czarniawska, 2004). The centre of calculation created a device to help its connection to many ties, so that the number will be an outcome of no particular person's or actor's efforts but the combined effect of many. The spreadsheet brings impairment values alive by drawing together dispersed calculative practices each of which brings another piece to the puzzle of the impairment value. The tool is able to construct *faithful re-presentation* through its history of becoming a matter of fact in the organization and in the eyes of the auditors. The values that are calculated re-present the world that does not exist yet, and they do so faithfully because the device itself is not disputed.

Creating *relevance*, however, needs more allies. The concern is to make a value that is defendable; this is why it both passes through many hands and is

evaluated against growth rates that can be verified historically; it requires documentation and support from many actors. The spreadsheet organizes a network which cannot be said to be personal and subjective but impersonal and procedural (Mouck, 2004; Porter, 1994, 1995) because it relies on an ever expanding network of referents and actors (Huikku et al., 2013). Therefore, the size of the network of calculators to be taken into account is a sign of the degree of comfort with its production (Pentland, 1993) because many actors have had to be convinced about the reasonableness of the calculative practice. Its size indicates the degree of persuasion that has taken place; this is why, for example, even if people from the German group were fully capable of calculating WACC, it was useful to have them reviewed by external experts.

This thesis contributes to the study of the problem of imperfect numbers by including the complex relationship between the future and the present. While prior literature provides evidence on the importance of circulating reference, the central role of dispersed calculations and the role of integration work within the process of defending the number have so far been undervalued. Integration work in the case group was a never ceasing effort to bind different interests to one shared understanding of numbers and reports. By creating a role for compliance and IFRS, the group made notions like impairment testing and goodwill relevant at all levels of the organization (see also chapter 6). The shared understanding of matters enabled the numbers to travel and to widen the network, which helped to create the size that could persuade the markets about the numbers relevance. Furthermore, integration work helped to convince key actors like the auditors about the expectations of the future because it granted quality to internal valuations and assumptions. Instead of questioning whether the link to management accounting could be a challenge for the objectivity of the number (Zambon, 2011) this chapter therefore argues that legitimacy and relevance of the number benefit from integration work because it enables the crossing of boundaries; it enables wider networks of trust.

In prior mainstream IFRS literature, the reflective power of financial accounting information is largely taken for granted. This study shows, however, that the act of re-presenting the future and defining a unified voice of what the future might be is not a matter of mere application of standards. While the standard setters claim that high quality of accounting is achieved by complying with IFRS, implying a simple application and implementation of the standards in the firm, this case shows how much effort, translation and mediation of interests and numbers has to take place in order for the number to travel. No one single actor controls the whole process. Earnings management might be the intention of some of the actors, but the whole process is too complex to simply talk about normal and abnormal returns. In some circumstances, management might seek to produce conservative numbers in order to save taxes or other means; in other circumstances actors might seek to show high returns and growth to their shareholders. In this case, impairment testing gave

an example of how the network comes about and performs. In the case group, investments were one major driver of growth and fair value in the context of goodwill accounting was therefore of high importance. Investment decisions were made even at a very low operational level, making the valuation concern for management in all hierarchies. In other industries, goodwill accounting might not be as important, being more centralized in its structure. However, fair value accounting is but one example of the work that is necessary to create a re-presentation that can circulate across institutionalized boundaries.

Considering the size of the network necessary to give life support to the number, it does not seem reasonable to assume a number to represent the world. Instead it re-presents by becoming something in its own right and binding many allies and interests to its cause. What might be normal or abnormal in such a complex endeavour is an outcome of negotiation between many actors, striving for similar causes at times and opposing causes at others. In the end, the number needs to be closed. It needs to become a number *of the* future, a fact, that can travel and act at a distance in the markets of the world.

6 Mobilizing expectations: mediating the creation of value *for a* future

Whereas the preceding chapter was concerned with the financial accounting side of things, investigating and exemplifying how IFRS were able to act in the financial accounting realm by creating a circulating reference of the future, this chapter is concerned with the mobilization of IFRS within the group. This chapter responds to the question of *how IFRS relate to existing operations management practices* concerned with decision making, organizing, evaluating and strategizing. Only by enrolling the operational level, are IFRS able to transform organizational practices other than financial reporting.

The concept of a 'centre of calculation' (Latour, 1987) is mobilized in order to further investigate IFRS as an actor that associates with the group HQ as IFRS centre of calculation in order to command the group of companies. The analysis focuses on how IFRS were able to mediate interests and practices, to organize time and space, and how this enabled, constrained or transformed existing networks and calculative practices in the group. The group was highly decentralized and subject to the amount spent, investment decisions were made even at very low levels in the organizational hierarchy. As such, this calculative practice gave an opportunity to illustrate IFRS's activities in the group. Building on the discussion in the former chapters, the focus in this chapter lies explicitly on how IFRS were able to mobilize the companies into the greater network of integration and how this created new dilemmas in the organization.

In addition, this chapter takes up the practice of operating leases to give an example of objection when the strong interrelation between management and financial accounting became unbearable for the business. Operating lease liabilities were too important in the organization to show them off-balance as required by IFRS, which led to the only numerical separation between financial and management accounting figures within the group, mediating a key performance indicator (KPI) and disintegrating an integrated world.

6.1 Introduction

As discussed in the previous chapter, IFRS were able to act in the markets by a network that created a circulating reference of the future. Action at a distance is

fragile, however. The case at hand gives the opportunity to study a rare circumstance in relation to circulating reference and action at a distance. The reference produced is meant to act in the financial markets of the world. Financial accounting information is meant to be decision useful for stakeholders of the organization and it is produced not in a chain of transformation, but in a star-shaped web of mediators (see chapter 5). Sceptics of the number will therefore not be able to reverse a chain of transformation in order to assess the legitimacy of the re-presentation (Latour, 1999).

While the standards are meant to influence financial accounting practices, through translation and systems integration, the IFRS-numbers also travel back into the organization, which is a route not originally intended by the standard setters. Whether and how IFRS act within the organization can be seen as an unintended consequence, in the sense that the network that requires a number *of the* future becomes connected to the value creating activities of the organization, creating a value *for a* future. The tensions arising in the interplay between these different ambitions lie at the heart of this chapter.

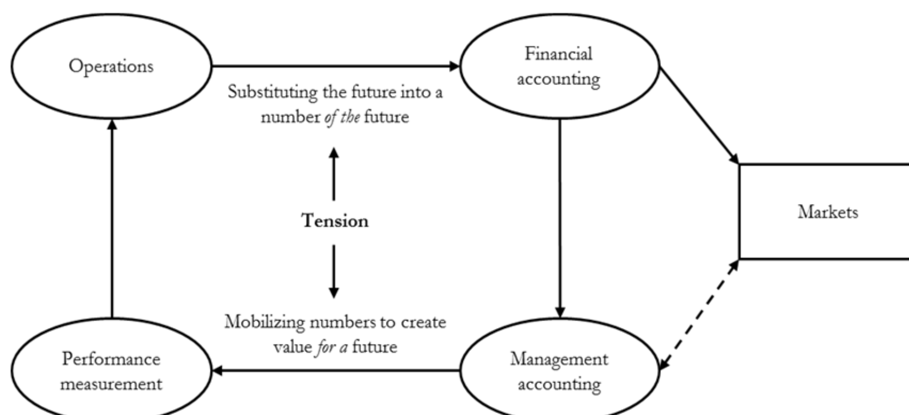

Figure 3: The number travels across boundaries[36]

Through integration work, the numbers produced in the financial accounting realm also become important in the management accounting practice. The stronger informational integration of financial and management accounting through IFRS (Jones & Luther, 2005; Quagli, 2011; Taipaleenmäki & Ikäheimo, 2011; Weißenberger et al., 2004), however, may be challenged by the key dilemma that the ambitions for reporting and performance management may not work similarly.

IFRS may not be equally powerful in the sense that the companies may object their use, substituting, altering or transforming them to something that

[36] Source: own creation.

enables their work. From a sociology of translation perspective, any transmission without mediation would be rare in the sense that the idea or 'reality' that is carried becomes interpreted and translated in its mobilization.

> According to the latter [the model of translation], the spread in time and space of anything – claims, orders, artefacts, goods – is in the hands of people; each of these people may act in many different ways, letting the token drop, or modifying it, or deflecting it, or betraying it, or adding to it, or appropriating it. The faithful transmission of, for instance, an order by a large number of people is a rarity in such a model and if it occurs it requires explanation.
>
> Latour (1986, p. 267)

Most likely the IFRS number will not be mobilized in the form it is presented to the markets. It needs to enrol new allies in order to exist, or it will be dropped, losing its power. There can be a loss, both in the transformations where records are assembled in centres of calculation, and in their return to the setting that produced the records (Dambrin & Robson, 2011; Frandsen, 2009; Preston, 2006). There may be competing centres of calculation drawing on different calculative practices (Lowe & Koh, 2007; Mouritsen, 1999; Mouritsen et al., 2009). There may be dispersed calculating actors and emerging centres of calculation (Czarniawska, 2004; Quattrone & Hopper, 2005, 2006); and multiple calculative practices may co-exist in one centre of calculation (Munro, 1993). The centre of calculation may therefore be fragile when acting within the organization and its particular effects have to be delineated and described rather than assumed.

If IFRS are able to act within the organization, how so and what are the consequences? Integration might solve dilemmas in the organization, but it also might produce dilemmas for the management and control because the ambition of the number might not be the same for internal and external use. Whereas financial accounting closes concern about the future to create a circulating reference, operations management opens up for different interests negotiating a future. Chapter 4 established that IFRS were able to mobilize the CFOs and their companies for the idea of integration. This chapter investigates further how this enrolment transformed existing networks and practices of accounting and control within the case group.

In particular, two different types of business activities turned out to be related to the practices of impairment calculation: planning for future investments and performance measurement which were mediated by budgets, business plans and the KPIs. In addition, operating lease transactions were found to be a dividing practice were the integration network could not accommodate business interests sufficiently to bind the key allies in the organization.

6.2 Business planning

Due to the importance of inorganic growth within the industry, the group's business planning was frequently concerned with acquisitions. Due to the decentralized organization of business activities, all investment ideas originated in the operational units. The financing, however, was more centrally organized. Depending on the amount to be spent, investment decisions could be made at business unit level, divisional level or group HQ level, involving the group's board of directors.

The initial business planning exercise was explained by this controller as follows:

> *If someone in our unit wants to acquire something or has an idea, before this acquisition is seriously taken into consideration, the investment is analysed. (…) After strategic questions are settled, first business plan drafts are calculated. These calculations are operative; a balance sheet does not matter there. Instead we assess what kind of object it is, how it is positioned and its revenue potential. How can we imagine this investment to develop if we market it? (…) Basically, we build our own future onto the existing business. And if it is plausible, we start negotiations.*
>
> Head of controlling, OU 1, division B

Initially, as the head of controlling explains, a business proposal for an acquisition was evaluated on strategy, and then it was evaluated on operational costs and revenues. These were the direct costs and revenues of the investment – a sort of contribution accounting – which would pay attention to the market more than to the balance sheet. The future was proposed as not yet having any strong accounting representation apart from some justifications of direct cost:

> *If you for example want to buy a company, the past plays a very important role in assessing whether our prognosis about the future is realistic. If you buy a machine (…) we always try to project what we believe will be the future development of the business. That's the problem. You look into the future, but for the future of course you don't have any accounting. So where to deduct the numbers from? Ok, accounting gives a basis for cost assessments etc., but in the end, it's expectations about the future, I look into the future.*
>
> CFO OU 1, division E

In order to form ambitious expectations about the future, that would bring growth and motivation to the investment proposal, there could be little reliance on the past. The concern with the future was a process of imagining how the investment could be mobilized in the market relation; it was understood as an addendum to existing business and evaluated on possible synergetic effects

relative to existing businesses. The market played a role as did direct revenues and costs.

However, the financing activities were centralized at group HQ and in order to get funds, the companies had to present investment proposals that included business planning not only for future returns, but also including balance sheet effects from a PPA. In order to be able to fulfil this requirement of business proposals, different units of the organization had to work together and combine their expertise. Other corporate functions entered and the role of IFRS became stronger:

> *Then Corporate Finance and law department are contacted and involved immediately. In a letter of content we then define the key points of negotiation. At this point in time we also include our corporate projects team as well as tax and financial accounting. If it comes to a due diligence, only finance people are involved. At that point in time, we are not involved anymore. IFRS questions play a major role here. And then they get back to us and tell us how we have to adjust our business plans in terms of additional amortization on step ups or other effects on profit. (…) They tell us what the relevant effects are from an operational perspective if the company gets consolidated, (…) because we do not look at a business in this way. We do not look at profit and loss statements or balance sheets. Our focus lies on the operative business, i.e., contribution margins and cost accounting.*
>
> Head of controlling, OU 1, division B

As the head of controlling explains, the business proposal was gradually moved further away from the business decision. It had to pass a due diligence test where the acquired assets and liabilities were identified. This was a financial rather than business concern. The proposed acquisition also had to pass the test of fair values of the acquisition as its asset values had to be re-calculated in the PPA. This mobilized a concern with the structure of the balance sheet through asset step ups that later could be amortized and then also, as an implication, of the goodwill value which could not be amortized but only impaired. The process of making an acquisition into a business proposal first developed the revenue/cost structure where business people were involved, and then the asset structure where business people were largely absent. Prior to the integration of accounts, there was little connection between managerial information and financial accounting. The separation of assets and liabilities within a PPA existed at that time, but it was of less interest. The head of accounting at group HQ explained that not only was there a strong separation between balance sheet and income statement within the organization in the past, the transactions had also been less framed by the pressure and practices of institutional actors like investment banks. The way in which transactions were made in the past, he explained, was different because the process of a due diligence, for example, was less defined and there were fewer requirements on the quality of information base. Furthermore, under local GAAP there were less rigorous requirements in relation to the capitalization of intangible assets in a business

combination and goodwill was amortized on a linear basis. Although invested capital also played a role before the implantation of EVA, which came at approximately the same time as IFRS, in the assessment of management performance the definition of invested capital and operating EBIT was decoupled from financial accounting numbers, even heterogeneous within the group.

Not only had the complex standard requirements led to the emergence of new expertise, within the operational units the practice of PPAs led to a separation of different expertise but also to a strong connection between these separated parts. The staff member responsible for the impairment test in the group accounting team described the process of an investment as a "big wheel" where every unit takes on a different role, but where all parts need to work together in order to move forward, much like a machine in the Latourian sense (Latour, 1987).

> *Well, you get an investment proposal that needs to be evaluated. And I am part of this committee and have to take position in relation to the proposal. Now I could go about and say: "I think this deal is bullshit." Or something like that, but that's not my role. This is a board committee and there I represent my role as the head of accounting in the group. So I might say something like: "I find the purchase price allocation too low, or non-existent. Who made the due diligence? Are the balance sheets ok?" Precisely, like the tax people will bring forward questions on eventual tax issues involved.*
>
> Head of accounting, group HQ

There was a separation in responsibilities because controllers could not become IFRS experts and financial accountants were not as involved with the business. However, the separated elements were bound in the network of valuation, bound by the investment proposal. At the outset, businesses were already nudged to take assets into account via the role ascribed to accountants:

> *How I use the judgmental freedom [in IFRS] is something that the business has to decide. Therefore, I always cooperated with controlling and the respective CFO. I built up quite a good relationship, going even so far that I could say: hey, you can't do it this way. We can't account for it in this way because it is against the regulations or our internal requirements. (…) And I changed this here [in the company] as well. As head of accounting, today, I am highly involved in the operations, contracting and the design of new business models.*
>
> Head of reporting OU 1, division E

As an accountant, this person could not decide what would be best from a business perspective. However, the controllers would not be able to fully assess the consequences of their decisions in the balance sheet and its feedback to the operating EBIT in terms of for example additional amortization. This increasing involvement of finance and controlling happened because IFRS

required the investment to become part of a business model that also considered the balance sheet and not only the income statement. The head of reporting continued:

> *There are almost no issues that I am not involved in. Even investments, when we have something in mind, will not go past me today. They would usually come and let me have a look so that I can tell them how it looks in the balance sheet. What can we do with it? (…) When the investments are calculated, like e.g., this year we bought a company, (…) I was involved quite early. It usually starts with the controllers looking at the business. They assess whether and how we can integrate it, they look at the cost structure. (…) For the initiation and price negotiations controlling was responsible, but when they started to plan in detail how the deal will look and started the contract negotiations, assessing the outcome of the deal, valuations of the business and the assets bought etc., there I was involved even before the contract was signed to inform them how it will look in the balance sheet and whether there will be goodwill. In our situation there was even a risk of creating a badwill. (…) Not even group management is interested in a badwill because you can't praise yourself with it (…) since it does not even influence a performance indicator. In such a situation you look very closely at what you buy. What kind of business it is (…) because a badwill looks weird. Actually, one side must have been sleeping.*
>
> Head of reporting OU 1, division E

Via PPAs and their consequences for the acquired substance as well as its future impacts on operating EBIT, IFRS were able to translate operational interest. Balance sheets became important at an operational level because they influenced the attractiveness of the business and because they related to performance evaluation. This relation would also become important, if it were absent, i.e., if, as in this case, a badwill occurred, it would be part of EBIT, but treated as a special item in the operating EBIT and thus not count for performance evaluation.

IFRS introduced the balance sheet to investment assessments particularly in the form of asset step ups and goodwill/badwill. This became important, not primarily as evaluation of the investment as such, but more in terms of how the investment would figure over its life time as an operational project. The construction of the balance sheet through PPAs would impact operating EBIT through additional amortization on asset step ups.

> *In the implementation [of IFRS] additional amortization on step ups was the central issue. This was something we did not know before. And it is important because it sharpens the view of the operative responsible. The person will have to take into account the acquired substance of the business as well as the intangible substance. Of course they are responsible for it as well, but now they can see it in their operating expenses. If they had goodwill without impairment, they would not see it. … I find this a significant change because this way of thinking was alien to us before. And now they see it in their business plan where additional amortization comes in. And it can*

> *be substantial amounts for some businesses. This sharpens, of course, responsibility for something you acquire more than just extrapolating the existing business.*
>
> Head of controlling, division B

The asset step ups and the goodwill carried IFRS into business plans, and they intertwined concerns for business planning with concerns for performance evaluation. The way in which this controller is able to reflect upon his role in the wheel and his relation to IFRS hints at the extent to which standards gained ground in the consideration of controllers and managers. Integration work was able to create financial accounting as something desired for the business because it would sharpen the view on the organizational substance. A strict focus on operative results, something that was common practice in the business world before, was deemed to be of less quality. The investment was mediated by the new concerns about the balance sheet that was made concern because of the treatment of fair values and their amortization. In particular re-valuing acquired assets impacted the division of the excess value between asset step ups, which were to be amortized, and goodwill, which was not to be amortized but to be impaired. This influenced the idea of a business proposal; new concerns had to be taken into account because the structure of the balance sheet would impact operational performance such as operating EBIT and invested capital. The discourse of evaluation therefore also needed to take into account how performance measurement was organized, how it acted and how it was mediated by IFRS.

6.3 Performance measurement

At the group level there were two KPI in place that were mobilized to assess performance: Economic Value Added (EVA) and a cash conversion rate. The cash conversion rate was a recent addition to the performance measurement system as a result of the financial crises in 2008, promoted by the CFO of the group HQ. EVA was implemented in 2001 and had a longer history in the organization. The decision for EVA was made in order to show a transformation towards capital market orientation, but during the interviews there was no indication that EVA was chosen in relation to the IFRS implementation.[37] However, it did not stand in conflict with its implementation either. The performance measurement was heterogeneous in the group and

[37] EVA was introduced in the organization at about the same time as IFRS. Before that, the group had a form of return on capital employed as the core indicator for performance measurement. However, the head of group accounting explained that the decision for EVA was more framed by the environment and what was constructed as best practice at that time rather than connected to the IFRS implementation.

bonuses could depend on different business specific KPI.[38] Nevertheless, there were some commonalities among the divisions. All leading managers had some component of EVA and cash conversion rate in their salary. The EVA component could make up to one quarter of the total salary, half of which was related to a proportionate EVA calculation and half to overall group EVA. Up to one quarter of the salary was also connected to other KPIs like the cash conversion rate and business specific measures, which were defined by the superior of the individual manager. A minimum of fifty per cent fixed income was found throughout the group.

The cash conversion rate was rarely mentioned in the conversations. It appeared to be a figure that had not completely managed to become important. Nevertheless, some traces of activity could be found.

> *The balance sheets come from the different countries and they plan everything down to the net profit. But I dare to claim that they plan very well until EBIT and after that the planning becomes a bit generous. And therefore, it is fair to say that there is a greater focus on the income statement than on the balance sheet. If that will remain so in the future, well, the balance sheet gains in importance – keyword cash flow. Well, you look at it more often, you look at the development. But balance sheet items are very hard to plan. In the past, balance sheets were just carried forward, but today people know that you need to monitor the cash flow. And to do that, balance sheets are indispensable.*
>
> Head of group accounting, division B

Under common perception, IFRS promote a balance sheet because many of the requirements are reflected in balance sheet items. As shown in the prior section, in the group this resulted in a transformation of investment practices. However, IFRS could not enrol managers without their allies. The cash conversion rate was not strong enough to bring about a balance sheet focus because of the difficulties in planning the future of assets, liabilities and equity. The companies, and in this division, the country clusters, reported balance sheets on a monthly basis, trying to assess the quarterly financial accounting figures. However, their integrity was doubted. One reason for this was the difficulty in assessing the outcomes of PPAs and their effects on balance sheets. The group accountant continues:

> *You have to understand that in a publishing house you have many intangible investments, which might go directly into the income statement rather than be*

[38] Operating EBIT or EBITDA were represented as KPI in all divisions. However, there were differences amongst and within the different divisions with respect to additional targets that represented the individual businesses. For the printing industry, examples were mentioned in the form of capacity utilization, factor price developments and employee productivity. For the TV sector, market shares for viewers and advertising were important, while for publishing, advertising display prices and the number of new titles launched were relevant.

capitalized. Even for internally generated software, where the units in the past at times were in favour of capitalization because of earnings management considerations. Today these costs are often expensed, too. They found out that shorter useful lives and the business plans that often times could not be met could turn against you, particularly in times when you don't want it, leading to volatility of the results. Now the units are more willing to use the judgemental freedom in relation to the necessary documentation. (…) But of course it has been understood and used as earnings management tool in the past.

Head of group accounting, division B

The financial accountant indicates that earnings management was a conscious practice among the managers in his division. However, the statement also implies that the outcome of earnings management activities in the company was not as clear as often assumed. Instead, the outcome of such decisions could bring volatility and uncertainty. In this person's view that earnings management with the help of judgmental freedom in the IFRS was decreasing because of its uncontrollable effects in the future; and balance sheets were inferior to income statements in the business. It was difficult to plan future acquisitions and their effect on the balance sheet and the income statement respectively because the decisions of the PPA would be made with respect to the state of being at the time of purchase. The outcome of a PPA would be subject to negotiation at the time of purchase and people would have a hard time to assess the outcome of this negotiation beforehand. In a business that is driven by acquisitions, this makes the planning of a balance sheet a difficult affair, making it a weak reference.

The EVA concept on the other hand had been in place much longer than the cash conversion rate. During the interviews, EVA was mentioned as the key figure for performance evaluation of top level management in the HQs and the operational units. Nevertheless, in management understanding the EVA concept was separated in its components of the net operating profit after tax (NOPAT) and the invested capital because different actions were necessary to influence these figures; and the measures were only able to influence managerial practice, motivating different actions, if the managers felt the ability to influence the outcome of these measures.

If they have judgemental freedom, then you have to understand the managers. As long as there is room for interpretation, managers will always try to optimize their salary. And if there is room, this is also legitimate. Just like it is legitimate in financial accounting, it is also legitimate for managers to use their space in order to interpret things in their favour. Whether that is always for the best of the group is something else.

Head of controlling, group HQ

The head of controlling explains that management's interest was driven by their performance measurement, which is not so surprising. However, IFRS are

connected to the KPI and through this link it was possible to mediate managerial practice, which is more surprising. The prior section shows how IFRS were able to influence management concerns through an alteration of existing calculative practices. Future investments were important for growth and thus for reaching the performance targets. EVA was another way to trigger management interest. However, not all parts of EVA were important at all times because sometimes managers would not perceive all parts of the calculation under their control. From the NOPAT component, the operating EBIT came under management's focus because the tax rates were out of their control. While a focus on operating EBIT and NOPAT was more natural to the operational units, invested capital was interesting only in organizations where managers felt a possibility to influence this figure. This could be possible either through investing or through, for example, optimizing debtors' management.

> *Of course it [EVA] is in focus and we can influence it through our investment politics. However, in times when there are few investments, we can work mainly with our debtor management and our payment targets respectively. And this we have clearly in focus. But no matter in which conversation, one figure is key: operating EBIT. (…) And then you look at EVA once in a while. Actually, EVA is the key figure, but it's kind of a by-product. So we are actually lucky because we can influence it by focusing on our debtor management. Basically, there is a focus on EVA in the organization, but it seldom pops up in the two-week and monthly discussions, whoever you talk to.*
>
> CFO OU 1, division E

In this division, the management reports consisted of two-week reports and monthly reports. In the whole group, the quarterly reports were matched with the statutory figures, so only at these times did the companies need to produce balance sheets. For the monthly reporting and weekly or two-week reports, only key figures were presented. In these reports, the balance sheet was less important. Although the cash conversion rate and the EVA were included in the reports, they were not strong enough to become a concern. What this CFO describes represented the general operative perspective also mentioned by other controllers and managers.

> *We have high pressure on our results. The group is controlled with one KPI. Well, since the financial crisis it's two. Until two years ago we only had EVA and now they added cash flow. Understandable considering the times. (…) But in principle, the group is controlled on operating results. And they will leave you alone as long as your results keep up.*
>
> Head of reporting OU1, division E

In many respects, the focus on the income statement was therefore dominant among the operative people. From a theoretical standpoint this might

imply that IFRS were unable to act locally because the standards mostly focus on the balance sheet. Contrary to this intuition, in the case group, goodwill accounting and PPA, notions introduced by IFRS, could become critical in two ways:

> *…the big question raised by everyone is: how many hidden reserves [i.e., asset step ups] should be capitalized, which you then can amortize over time? Of course these will lower invested capital in the future accordingly. Or, you decide for more goodwill. Then you in principle have no effect on operating EBIT, (…) but you will have a higher invested capital in the future as well. Therefore there are always discussions around that matter and there are very different views on it in the frame we are moving.*
>
> Valuation expert, support unit, group HQ

Although, in principle, the amount allocated to goodwill was not arbitrary, it was not easy to make a distinction between assets to be stepped up and assets remaining as goodwill. Managers had some judgemental freedom in relation to definition and measurability of assets that could be used to define a higher or a lower goodwill.[39] As discussed in chapters 4 and 5, the definition of fair values was influenced by different actors. The outcome of a PPA therefore was the outcome of negotiation and mediation of many.

IFRS became management concern during the stages of PPA because the future development of the investment would influence their performance measurement. If asset step ups were recognized, invested capital would decrease over time because of its amortization. However, the additional amortization would also lower operating EBIT. The positive effect on EVA in relation to the invested capital, therefore, would be offset by the negative effect on operating EBIT. Goodwill impairment would work differently because impairments on goodwill were not part of operating EBIT. They were defined as special items that would influence the salary of the responsible managers with a small proportion in the year of the impairment, but otherwise they would not be of interest for performance measurement. From the perspective of operating EBIT it would therefore be beneficial to create high goodwill amounts, leaving the operating EBIT with lower amortization on asset step ups. However, if there were no impairments, the amount of goodwill in the invested capital would not decrease over time, having a negative influence on EVA. The valuation expert termed this dilemma a "tightrope walk" without a clear solution.

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[39] In a PPA, assets and liabilities have to be re-valued and goodwill is capitalized as the remainder (see also chapter 5). The revaluation of assets includes the definition of fair values for all the assets in the balance sheet of the acquired business, but also the definition of fair values for intangible assets that were not capitalized before, for example, brands and customer lists. The standards define certain conditions that need to be met in order to capitalize such assets. Discretion in valuation therefore was left both in the assets taken into account and in the fair value assessments.

IFRS produced ambiguity and uncertainty in relation to performance measurement because it brought operating EBIT and EVA into tension. At times of investment, managers and controllers therefore had to take into account the standards and their requirements. They had to work together closely with financial accountants and other parts of the organization like the law, tax and finance department in order to be able to assess the consequences for their current and future KPI. This links to the discussion in the prior section because IFRS became most active in the group during times of investment. It complements the force of the investment proposal and the need to finance the future investments with the power of individual bonus payments that became connected to IFRS through the matching of accounting systems. The CFOs of the individual companies became enrolled in the standards because the standards organized and motivated the ways in which the company could grow. The tension in performance measures created by IFRS produced concern for the standards and their judgemental freedom in relation to PPA and goodwill accounting.

The time of the PPA was therefore one of the occasions in which IFRS, through their close link to management accounting, were able to influence the decision making of the organization. However, even after initial recognition, goodwill accounting and particularly impairment testing would be of concern in the group. To top management, impairments were also important because of their role in relation to market expectations:

> *Surely the board of directors is also concerned with the external representation, which means: when can we best carry impairment? (…) In years where everyone knows that business is bad, the market expects you to have impairment losses. (…) And benchmarking is important as well. "They have impaired so much and we do nothing. Can that be right?"*
>
> Valuation expert, support unit, group HQ

Operating EBIT was a concern because of the effects of amortization on asset step ups and goodwill in the invested capital. However, through the annual reports, goodwill, impairment losses and the capitalization of intangible assets were also signifiers in the markets. Impairment losses, for example, could become an image problem in times where the market would not expect losses, implying bad investment strategies or mismanagement. On the other hand, not showing any impairments in times of crises where competitors would use "the opportunity" to write off some of their goodwill might send misleading signals to the market as well. To some extent, it was necessary to manage goodwill and impairment on goodwill in order to please the markets. However, as discussed in chapter 5, agreeing on a fair value was not an easy task and was not under the control of individual actors. Originally starting as a statutory accounting affair, goodwill and impairment testing became a strategic element in the discussions and group as well as divisional HQ would get involved in critical cases (see chapter 5), which also enrolled the local managers to the concern. In

critical cases, the strategic dialogues that framed the budgeting process would include components of IFRS because it became more complex to agree upon the future. The relation between financial and management accounting in this integrated setting connected strategic concerns with external standards and their representation in the markets.

Goodwill accounting and impairment testing, thus, enabled IFRS to act locally through their connection to KPI. Such activity might be considered an unintended consequence of standard setting because it could direct management behaviour in a way that was not intended by the group. Group level management had to be aware of the links and, for example, had to get involved in the strategic dialogues and the processes of PPA in order to remain in control.

Another example of potentially misguided management behaviour because of the connection between performance measurement and IFRS could be found in relation to the balance sheet treatment of acquisitions where ownership was gained gradually – so called step acquisitions – because the acquisitions after control was achieved were not visible as investments:[40]

> *Controlling would definitely have voted for including the increase in goodwill at least in the invested capital calculation for the EVA. Where is the difference, whether I buy 100 per cent and someone else buys first 51 per cent and then 49 per cent more? And the person who goes with the latter then gets a benefit and has a much better EVA. This can't be right. This goes on even up to the disclosure of investments, which only shows in the cash flow statement under financing activities [not investing activities] for purchases below 51 per cent. In the budget we will change this because at least from an economic view it does not matter whether I increase from a 51 per cent interest to a 100 per cent interest or whether I buy 100 per cent at once. In our overviews, we have a page "investments", which we will expand so as to show partial payments and ownership increases for consolidated entities.*
>
> Head of group accounting, group HQ

While an acquisition of 100% in a company carried the full effect of goodwill, asset step ups and subsequent amortization on operating EBIT and invested capital, in a step acquisition all investments after control was achieved would not affect invested capital and, thus, would show a higher EVA for the respective manager as compared to a manager opting for 100% investment directly. Therefore, the business transaction was suddenly understood as a problem because of IFRS. Group HQ were aiming to minimize minority interests, and the link between performance measurement and IFRS was suddenly misleading management motivation. However, despite this possibly

[40] IFRS allow goodwill accounting only for business acquisitions where control is achieved, and not for any earlier or subsequent acquisitions. Consequently, for subsequent acquisitions no goodwill or asset step ups will arise and the purchase costs are reported as financing activity in the statement of cash flows, not as investing activity.

negative motivation the group was determined to keep the integration intact. The integration work discussed in chapter 4 had been successful in defending its position to date. However, this example shows how the solution that integration brings can also create new dilemmas. The business interest in this example is lost in the number because there is no place for both the IFRS and the business. The alternative view of the controllers, to separate the EVA calculation from the financial accounting practices, is silenced by the strong network around IFRS. Instead, the network tried to mediate the unwelcome consequences with substitutes, extensions and complements to the existing forms. In this example, the group HQ decided to adjust the internal cash flow statement in order to show such unwanted step acquisitions. The idea was to be able to "punish" managers if they were to use this mechanism in their favour instead of following the general requirement of minimizing minority interests.

Another example of the unintended consequences of integration could be found in relation to the mathematical technicalities of impairment testing. The general point was that impairment testing was so tightly coupled to calculations and to mathematical formulae that it required constant re-valuation of the future to the detriment both of auditability and of accountability, as the group's head of accounting explained.

> *Impairment calculations are so technical now in our minds, so bound to different mathematical algorithms. (…) I mean, we are well prepared with our tools. (…) Last week, e.g., we made a political move in our balance sheet, where technically (…) we are safe. We saw some future risks in the risk management report of one of our sectors. (…) So we decreased the terminal value growth rate by 0.5% and produced an impairment loss. Our auditors were really angry that we changed the calculation without prior notice. We just argued that our expectations had changed. (…) For us this is normal prudence. (…) And then we got into conflict with our CFOs. "You can't change an accepted budget! Our management targets are based on them. If you change the budget, it will not have a motivational function anymore. If you depreciate that much, you take all the pressure out of our planning".*
>
> Head of accounting, group HQ

In this example, a presumably isolated financial accounting decision framed by prudence created a dilemma for the motivation of the local managers. Because of the calculative interplay between reporting and performance measurement, matters became related that otherwise would have been preferred to be separated (Miller, 2001). A prudent revaluation of the value of goodwill would stand in the way of the usefulness of targets for delegation and motivation. The "political move" of creating an impairment lowered the invested capital in the respective CGU, without effecting operating EBIT. The actual EVA figure therefore increased. Since this was not foreseen in the planning process, the planned EVA target for the respective managers that were affected by the CGU was therefore too low. The link between financial accounting and management accounting in this integrated setting therefore

created conflict. The example hints at the strength of the financial accounting values in the group; but it also shows how both management and financial accounting could no longer function in isolation. They were bound through the network of integration.

These examples show how IFRS, via goodwill accounting and impairment testing, were able to influence internal evaluations and how this integration of different accounting purposes and ambitions created tension and conflict. In the case group, one other business activity was as important as business combinations: leasing transactions. Here as well, IFRS were able to become concern, however, in a more indirect way, binding even more allies to their cause. Operating leases provide an example of the power of IFRS, but also of their weakness in acting locally because the re-presentation of operating leases was the only circumstance in the company where the calculation of the EVA became decoupled from the statutory figures.

6.4 Operating leases as a temporary breaking point of integration

Leasing contracts, operating leases in particular, were very common in the group. Taken all together, operating lease obligations represented about a sixth of total liabilities in the group. IFRS requires finance leases to be shown in the balance sheet with an asset and a liability component. Operating leases on the other hand are shown off-balance only as an explanation in the notes.

For the group, however, these obligations were too important to be out of sight. Already under local GAAP and later under IFRS, the group HQ had therefore decided to monitor these obligations as part of the total liabilities in their management reporting. The targets included a finance target that would capture the overall liabilities of the individual responsibility areas of the managers. Despite the integration efforts, this split remained within the group. From a business perspective, the information was too valuable to be lost in the integration.

It was important to substitute the reports that were produced under IFRS because they would motivate management in a wrong way.

> *My colleagues are incentivized with EVA and therefore they always find clever contract constructions in the form of put-options etc. that would create an operating lease. Even if in substance it would be a finance lease because they don't want to show the net present value of the finance lease in their invested capital. They are rather creative. And to avoid this optimization we have strict procedures. From X Euro the group CFO has to be involved and we will prepare a statement. So they really have to*

convince us about the use and legitimacy of their rent arrangements. [The financial amount has been taken out for purposes of confidentiality.]

Head of corporate finance, group HQ

The statement hints at the traces of IFRS. In the initial phases of IFRS, the negotiation of the different parties involved had convinced group HQ that the strong link between financial and management accounting numbers would guide their managers to misleading representation also in the statutory reports. Neither would the organizational substance be re-presented adequately to the outside world, nor would managers be measured on the full substance they were responsible for. The network of integration could not accommodate such tension and the decision was made to treat these obligations as on-balance liabilities for management reporting and evaluation purposes. With this decision, managers' motivation to create operating leases would decrease. But this disintegrated solution was difficult to communicate to the market:

The agencies are treating these obligations as liabilities. This is something that came to us from the outside. We always had a separate finance target that included the operating lease obligations. (…) But this target was monitoring the obligations separately [off-balance]. It was manageable, but we had to explain ourselves to the rating agencies. And we had to waste a lot of words. The end result was the same, but it was communication intensive.

Head of corporate finance, group HQ

Rating agencies were not motivated by IFRS, but their bases for assessment were the statutory financial statements. The agencies had found their own attachments to the numbers produced in local GAAP and later IFRS financial statements. Therefore, it was hard for the agencies to understand the solution that was produced in the group and a lot of effort needed to be spent in order to convince them.

Interestingly, although neither the group nor the agencies originally found IFRS numbers adequate for their monitoring of liabilities, IFRS did eventually change the existing practices inside and outside the group, as the head of corporate finance explains further:

Already under German GAAP we had to take these obligations into account – off-balance – with rudimental information. But IFRS requires considerably more information. And because of this additional information (…) there was concrete evidence in the IFRS balance sheets of the firms. The further IFRS spread, the more they could compare. And eventually, the rating agencies developed new multiples.

Head of corporate finance, group HQ

IFRS required detailed information on the operating lease assets and obligations that were mobilized by the rating agencies in order to construct measurement tools that would substitute the reported balance sheet and re-

present the financial position of the firm in a new way. Not only the obligation but also the asset side of the leases became concern in the assessments. These re-presentations, however, were neither in the control of the group, nor could the group be sure that the altered re-presentation would be to their favour. This posed pressure on the organization to find a solution that could serve the market's need for information and let them stay on top of the calculations. The organization decided to take radical steps and the dilemma was solved in two related steps: the EVA calculation was adjusted to make managers aware of the issue in a more integrated form and the statutory reporting was complemented with more extended voluntary information about the operating leases to stop market participants in their separate assessments.

Instead of placing operating leases only as part of a separate financial target, operating leases were included in the central performance indicator EVA, giving prominence also to the asset side of the lease not only the obligation. This brought the fact to everyone's attention that group HQ was concerned with the matter and that it was of high importance. However, to enrol managers to the new form of evaluation was difficult and operational solutions needed to be found.

> *To account for operating leases in the invested capital is a huge step. It would be methodologically clean to calculate an effect in the NOPAT as well as in the invested capital because of the imputed interest. But we feared that this would pose a communication problem. Because usually we explain that NOPAT is before interest and then we need to include an interest component. This is why we decided to reduce the impact on the invested capital with the respective interest instead.*
>
> CFO OU 2, division A

A calculation of a lease includes an asset part a liability part and an imputed interest that represents the incremental interest payments over time. This interest component technically would be lowering operating EBIT, but the group decided to lower the addition to invested capital instead in order to not confuse the managers. Based on the current interest rates a certain percentage of operating lease capital was added to the statutory number of the invested capital. This step communicated the importance of the matter inside the group; however, it was not sufficient to please the markets and to stop eventual disadvantageous evaluations from the analysts and rating agencies. IFRS required organizations to give information in relation to the expiration dates of the operating leases; but the categories for reporting were too large and the agencies kept building averages in order to make their assessments that were potentially unfavourable. The group therefore decided to go even one step further:

> *The [IFRS] requirement was to report expiration dates in the clusters less than one year, one to five years and more than five years. That's the requirement. But then the agencies started to build averages because they did not know the exact development of*

the leases. This went generally to our and other organizations disadvantage. Ergo, we – in cooperation with our auditors – defined a NPV and communicated: "These are the useful lives and the currencies. And these are the interest rates." And in the end we actively disclosed the NPV in our reports. This was voluntary; it is not a requirement in IFRS. But for several years now we have reported an NPV in our notes for everyone to see. And that helped very much.

Head of corporate finance, group HQ

The struggle with the rating agencies produced a new number that was reported to the outside world without an active requirement of IFRS. However, IFRS had started the process because it made markets aware of the possibilities of information leading to more refined multiples. The triangle between organizational needs, the interests of the rating agencies and the requirements of the standards developed new practices of reporting and evaluation. This presents an example of a circumstance where the close link between financial and management accounting altered not only controlling practice, but also reporting practice. Furthermore, in recent years IFRS have acknowledged the importance of these discussions and are planning to amend the standards in order to fit into these negotiations, thereby responding to the requirements of the market participants.

6.5 Discussion

6.5.1 A new IFRS centre of calculation: mediating the motivation for future value creation

It is not trivial to define what value creation might be (Bowman & Ambrosini, 2000). Apart from non-profit organizations, value creation in the organizational context is generally related to profits or decreased cost of capital/systematic risk. Value creation, thus, is connected to shareholder value in the form of higher returns or less systematic risk for the shareholder. Out of this market driven perspective, value creating activities within the organization have been linked to the following: 1) business planning and strategic decision making (Morrow, Jr., Sirmon, Hitt, & Holcomb, 2007; Seth, 1990); 2) managerial behaviour, which is motivated by the control package in place (Ittner & Larcker, 2001); and 3) the perception of the market, "capturing" the additional value in their assessments (Bowman & Ambrosini, 2000). While there have been widespread discussions of these concepts, dispersed over many different fields of research, the discussion at hand focuses on an empirical investigation and exemplification of how IFRS, in the case group, became intertwined with these central activities of value creation, enabling financial accounting standards to become part of the creation of value *for a* future of the organization.

IFRS are not intended to influence organizational activities at the outset. They are meant to create a faithful and relevant *representation* of the organizational activities that enables stakeholders to make decisions. However, financial accounting numbers cannot be trivial representations; they are substituting – *re-presenting* - the world with a form that is able to remain stable in travel across space and time (see chapter 5). Creating a circulating reference in the financial accounting realm is not a trivial matter; the number needs to enrol a network of allies in order to survive and to become legitimate. In integrated accounting systems, however, the number also travels back into the organization; and when travelling back, the number needs to bind new allies in order to travel back with authority (Frandsen, 2009); and its travelling may have uncertain and unintended effects in the persuasion of the local setting (Qu & Cooper, 2011).

As the empirical material in this chapter shows, the calculative practices introduced via IFRS traversed boundaries between operations (performance), strategy (business planning) and the capital market (statutory reporting). The general point that numbers are the effects of traces from various spaces (Vollmer et al., 2009) is insightful but the complexity of its operation is noticeable. It is not *one* mechanism that summarizes traces and (faithful) records; there were at least three in the German group. IFRS originally were meant to act in the markets, re-presenting the organization to its shareholders, rating agencies and other stakeholders. By enrolling the organization to the idea of integration, however, a new setting was opened for IFRS to act at a distance. IFRS required practices that were new to the business world because they required a separation of assets and liabilities, a focus on the balance sheet that was alien to controlling before. The case shows three areas of activity in the group where calculative practices were mediated by IFRS requirements: in business planning, in performance evaluation and in the negotiations with the market in relation to operating leases.

Business planning before the integration of accounts was decoupled from financial accounting numbers. Through integration work, financial accounting gained dominance in the group HQ and started to enrol many allies across different disciplines, divisions and companies. IFRS became powerful enough to mediate the central inscription in relation to business planning: the investment proposal. The industry was dominated by business combinations as a major driver of growth as well as business planning and was therefore subject to strategic decisions about future investments and their financing. By forcing the outcome of PPAs into the investment assessment, IFRS managed to mediate management's concern with the balance sheet and its consequences for the assessment of the investment. Not only marginal accounting was important; financial accounting values like amortization on asset step ups transformed management's concern by including an increased responsibility for the acquired substance at the time of acquisition and also later in the performance evaluation of the manager. Although calculative practices like PPAs had always existed in

relation to acquisitions, they were new to the assessment of investment ideas. Through the interplay between financial and management accounting the standards were able to transform existing practice and concern, making it a more complex endeavour. As a consequence, controllers and managers alone were no longer able to assess their investments. The network around the proposal had to shift and bind new allies with different expertise. Like a machine (Latour, 1987) that becomes transformed with a new attachment, the expertise of the numbers was spread over different spaces and the network around the investment had to bind new allies into place in order to work. IFRS organized the faithful records in a different way, which changed the consciousness about the strategic moves in relation to investments. Growing through investing activities was mediated not only by its outcomes in terms of revenues and costs, but also in relation to the balance sheet.

At the outset, balance sheets were considered inferior to income statements in the local setting. The link between financial and management accounting even contributed to this view by introducing PPAs to management reports, making the forecasting of balance sheets even more complex and arbitrary than under local GAAP. The *performance measurement* system was bound to the accounting information dominated by the standards and the uncertainty around PPAs in relation to eventual balance sheet political decisions made its planning even more difficult. Even the introduction of a new KPI – the cash conversion rate – was unable to change this resistance. From a theoretical standpoint this might imply that IFRS were unable to mediate managerial practice because its effects are mainly related to the balance sheet.

Instead, the importance of business combinations for the second KPI, the EVA, opened up new ground for IFRS. The EVA figure was well established in the group. The network around the KPI connected the group HQ with the divisions and the different companies. Because of the importance of investments in the group, IFRS was able to mediate the concern around the KPI, introducing interest for PPAs at initial stages and impairment testing at subsequent stages of an investment. IFRS posed tension in the network that carried the EVA because they introduced ambiguity in the components of the number. Goodwill, asset step ups and impairment losses would have counteracting effects on operating EBIT and invested capital, increasing the complexity of performance *management*. Through its influence on investment proposals and EVA, the concern for the balance sheet and its consequences for economic results enabled IFRS to redefine and reorganize motivation and growth in the companies.

The role of IFRS in management control was further strengthened because, via impairment losses, the standards dictated a new category of 'critical'. A critical company would need to mobilize more inscriptions and allies in order to defend their position in the organization than non-critical companies. They warranted more attention and produced more documentation since loading more actors in the network could possibly postpone impairments. Top level

management would be more involved in strategic dialogues, mediating the outcome of the budgeting process by centralizing its concern. Prior to IFRS, goodwill was amortized over a defined period and was of no concern for strategic dialogues. Now, financial accounting standards in the form of PPA initially and goodwill and impairment subsequently shifted the existing networks around target setting and control because HQ management became more active in the negotiations. Moreover, local managers had to mobilize different units in the group in order to be able to assess the consequences for their performance.

Financial accounting mediated many different inscriptions in the organization that were mobilized to motivate managers, communicating to the outside world and to control the performance of individual investments as well as managers. The numbers that were produced by these networks were not made up in the same way and their motivational effects were shifted, which could sometimes lead to unwanted consequences. Step acquisitions, increasing minority interests, was one example of misguided management behaviour as an outcome of IFRS' mediation. Another example was the danger of connecting target setting with financial accounting notions of value like prudence. Balance sheet political decisions then became important in the motivation of the managers too, thus creating dilemma.

The influence of IFRS in their centre of calculation, therefore, was challenged at times. Only small parts of the standards were able to mediate existing networks in the group; and the network around integration was not always sufficient to silence diverging views (Lowe & Koh, 2007). In the example of *operating leases*, business and financial accounting interests were too distant and both sides too valuable to get lost in integration. For operating lease reporting, the companies were not only faced with their own needs that were conflicting with IFRS' re-presentation of the transactions, but also with the interests of the rating agencies. Having the rating agencies as an ally made the existing network strong enough to fend off the aim of integration. Operating lease obligations were part of the overall liability structure, despite IFRS' refusal to accept them as liabilities. However, the standards instead gained some influence by mediating the expectations of the rating agencies. A new dilemma was created for the group, which could not be solved in an integrated accounting setting. IFRS could not hold their allies in place and the calculation of operating leases was decoupled from the financial accounting world not only in a separate calculation of liabilities, but also in the key ally to IFRS, the EVA. The centre lost its power. Instead, the competing network grew so strong with the rating agencies as allies that it temporarily took over control. It was decided to voluntarily provide additional information on the expiration dates and NPVs to the market to fend off unfavourable evaluations by the rating agencies. As a consequence of these power struggles, that are not unique to the case group, the IASB is now considering amending the existing standards. In consequence, it is only by amending IFRS requirements that the centre of calculation can

command the calculations again and circulate facts that are taken for granted by the organizational members.

The examples of the case show that IFRS and integration work shifted existing networks around calculative practices in the organization. What is an unintended consequence from the eyes of the standard setters is practical reality in the organizations. IFRS became active in the organization, but their control was a spatio-temporal resource rather than a stable state. IFRS as a centre of calculation were able to integrate the different accounting disciplines, however, only at the times when it was able to connect to existing, strong networks that allowed its entrance. Power was therefore only granted to financial accounting standards when the business interests could be either translated to something new or silenced by different mechanisms. Without the business as an ally, IFRS could not perform in the organization.

6.5.2 The dilemma of integrating different ambitions

Previous research in accounting has addressed the dilemma of integrating different ambitions in and through accounting systems (Dechow & Mouritsen, 2005; Mouritsen et al., 2009; Quattrone & Hopper, 2001, 2005, 2006) but in different ways. The concern of this research remains with the investigation of ERP systems and their ability to integrate different business functions, creating new ways of accountability and control (Dechow & Mouritsen, 2005; Mouritsen et al., 2009; Quattrone & Hopper, 2006) or the absence of such in a centralized way (Quattrone & Hopper, 2001, 2005). This chapter contributes to the discussion of what integration might be and how it can come about because it presents a case that enables one to see different accounting purposes and ambitions at stake, adding complexity to the dilemma.

Quattrone and Hopper (2006) for example found that SAP systems in their case company were initially unable to create circulating reference because the system produced numbers bound to the logic and interest of the HQ. Things that were important to the company were not represented anymore or in a different way. The concept of 'prices' for example meant different things to the HQ than to the company (p. 227). The authors conclude that IT is made and transformed in a network; it is "heteromogeneous" in the sense that it appears homogeneous in its network because it draws together heterogeneous interests. IT therefore cannot be stable over time, but must accommodate the different ambitions at stake. The process of integrating different accounting disciplines, however, remains largely taken for granted by the authors. Similarly in their 2005 study, the authors are concerned with HQ as a centre that loses its power because the implemented ERP system collapses the distance, creating an a-centred organization (Quattrone & Hopper, 2001) that produced only minimal power for individual actors because everyone could mobilize accounting reports in 'real' time (Quattrone & Hopper, 2005). The presented parallel case, where action at a distance remains possible because the original hierarchical

structures are kept and the full potential of ERP systems is not used, appears rather flat in its dilemma. The concern lies with the different logics and ambitions in the realm of business rather than the complexities of different accounting disciplines in place.

The case at hand shows how group HQ is framed strongly by IFRS and their influence and this dominance of financial accounting notions of value can also be felt in other studies. However, the dilemmas and the attempts to solve them are largely absent. The quest for integration is a never ceasing endeavour and it becomes evident in this and in prior studies that each step towards integrating interests will promote some interests and silence others whose values will be lost (Dechow & Mouritsen, 2005). Decisions have to be made that value some interests over others. Integrating business logic and accounting logic can be a 'technological nightmare', leading to one system of logic becoming an appendix of the other (Dechow & Mouritsen, 2005).

The significance of the case presented in this thesis is that its focus is on the integration of different accounting disciplines and the business interests of the operations; this complements prior studies on the complexity of having one set of accounts. What appeared as the simpler case in Quattrone and Hopper's (2005) investigations, gets a more refined and complex theorization. Accounting, in the case at hand, could not become merely an attachment to business logic. Rather, the system struggled because it had to merge different accounting purposes and ambitions, bringing financial accounting values and management practice closer together; and in a further step, this integrated system then had to create interest in the business world. In the interplay between these different interests, then, some ambitions were lost and others became salient. At times, even completely new practices emerged that were neither clearly framed by management nor by the standards.

The material presented illustrates how integrating different accounting worlds can solve dilemmas, in terms of communication, compliance and accounting quality as well as presentation to the markets (see chapters 4 and 5). However, just as it solves dilemmas, it creates new ones. IFRS require relationships between things that were previously separated in time and space. They reach out and relate spaces that were otherwise only loosely coupled: from the statutory report to investments; from production spaces to the capital market; from strategies to performance measures; across the institutionalized spaces normally associated with financial and management accounting. To some degree, IFRS are present across many parts of the firm (Frandsen, 2009) but they are not equally powerful across its different networks and calculative practices.

Investments were very important in the case group as a source of growth and business planning as well as performance measurement, and they were heavily influenced by the planning, pitching and the performance of business combinations. IFRS managed to link themselves to the concern within investments in two ways: by mediating the investment proposals and by

creating tension between the KPI in place. Business plans were the space where strategy, business, and entrepreneurial spirits meet. They were the place for high ambitions aiming for growth and financial rewards; and their calculations were originally primarily concerned with a profit and loss calculation of direct revenues and costs, often mediated by an evaluation of synergies between the existing and the proposed investment. The calculation was simple. It was very near to cash flows and profitability; it was concerned with operational values. IFRS' concern with the separation of assets and liabilities in a PPA, however, altered this focus, shifting it towards a concern with the balance sheet and its effects in relation to amortization of asset step ups. IFRS challenged synergies between entangled bundles of assets and insisted on a balance sheet which was composed of disentangled and separated assets. To business planning, assets would not be separate, but to IFRS, asset structure was a problem because the value of the investment would now concern assets that were not considered during business planning. It also changed the network around the number because more allies had to be enrolled in order to create the "big wheel" that was able to plan and assess the new theorization of the investment.

This closer relationship between financial accounting and the operational ideas and expectations would create a dilemma because the growth ambition of the business plan could be slowed down by financial accounting's pull towards normality and moderate expectations. What an investment could become was no longer a concern for only business people. Financial accountants were involved in order to assess the future of the investment. Business plans are more expansive and therefore difficult to document; they are ambitious because managers are charged with finding particularly good deals in the market. Expectations in business plans are therefore optimistic. Relative to the expectations produced in business plans, PPAs take into account political aspects in the sense that the numbers produced must bind to a different network: one that is dominated by financial accounting; that prefers to assume lower growth rates and depress the values represented in the statutory report. Ambition is not the game of IFRS but it is the game of business people in divisions and companies. These calculative practices collide and compete (Lowe & Koh, 2007; Mouritsen et al., 2009) but they are bound together by the machine of investment.

The concern within investments also intertwined business planning with performance measurement and *performance management*. Balance sheets were perceived as less reliable information about operating results because they were difficult to plan; and to manage the outcome of performance indicators, managers wanted to be in control. PPAs made the planning of balance sheets even more difficult because of their political dimensions at the time of purchase. Not only would the outcome of a PPA be negotiated in a network that was out of the control of the managers, it would also be subject to the state of mind in a different time and space. Dimensions like external representation of the division or the group HQ would also mediate what would be defined as

goodwill and assets and consequently, change the structure of the budget. Nevertheless, due to the integration of accounting systems, managers had to become concerned with the balance sheet, particularly in relation to PPAs, goodwill and impairment testing because these IFRS practices would influence the two central KPI: operation EBIT and invested capital. This created a dilemma because IFRS would bring these two numbers into tension in relation to goodwill accounting and impairment testing. The overlay of asset recognition and associated amortization and impairment rendered the operating EBIT strange and counter-intuitive to managers. This would shift managerial concern with the numbers and it could even produce behaviour undesired by the group, for example in relation to minority interests. Even more pertinent, political financial accounting decisions, like the creation of an impairment to build a reserve for expected losses, would jeopardize the motivational function of the EVA target. The close link between financial and management accounting, thus, produced unintended consequences that produced new concerns and dilemmas.

The motivational effects of operating EBIT and EVA became ambiguous, which made it impossible to manage when the calculation was taken too literally. The calculation cannot be allowed to be *that* performative. Vollmer's (2007) separation of the role of numbers in a reproductive (arithmetic) and a symptomatic (transformative) space hints at this dilemma. When numbers are mobilized they transform social situations. The calculation has effects on propositions made by managers about the state of the business; however, they are not only blindly accepted. Reading numbers is a reflexive practice that, even if they define the boundaries of what reflexivity can be about, makes the number a problem rather than a solution. The future is always at stake and the struggle is how much of the calculation to accept. Things have to be added to it. Even when in principle, the impairment value has taken into account many things as it builds on expectations of the future, the future that IFRS produce and the performance that KPI present are more average than managers' understandings.

Finally, the material presented shows how an integrated system might be unable to perform. Integration is an idea, an ideal that is produced in the making. All the different ambitions cannot be included in one network and one number; there will be overflows and some interests will need to be valued over others; but integration cannot be a stable affair. There will be objections and in the case group this objection became visible in the form of operating lease transactions. The numbers in place were not able to produce and transmit what was important to the organization, but also to the market in the form of the rating agencies. IFRS posed a dilemma because it required more information about operating leases, but not the right information in the eyes of the market. Their requirements became translated into a need for information, which in turn translated into unfavourable evaluations from the rating agencies. The

company had to react and the diverging interests could only be accommodated in separation.

6.6 Conclusion

This chapter investigates how IFRS were able to act locally in the case group, influencing the networks of calculation, linking and transforming them. The representational function of IFRS is challenged by the claim that IFRS become active in the organization. Without integration work, standards might not have been powerful; but in the context of integrated accounting systems, standards did more in the group than just connect and unify numbers enhancing communication.

IFRS were able to link themselves to central operational activities in the organization by mediating the forms that represented these activities. Altering the investment proposal to the favours of balance sheets linked the operational practice to financial accounting concerns. PPAs, goodwill and impairments reorganized the spaces of the organization creating a new machine around the central practice of investment planning. The existing networks were no longer able to perform; new actors had to be enrolled.

Furthermore, the standards redefined performance by creating tension between the established KPI. The outcome of management activities became ambiguous in their performance measurement. Managers had to concern themselves with new vocabulary and practices, and their responsibility was shifted towards the balance sheet, the substance, not only their familiar focus on results. IFRS created concern because they rendered existing interest and ambition inferior to the new understanding of investments and performance, while at the same time making it impossible for managers to stay on top of the calculations alone. Only in a network could the numbers be formed and influenced.

Yet one network can never capture all interests and objections will arise. Integration, as stated previously, therefore never ceases. It is an ideal that can never be fully reached, but the process of getting there defines what it might be. This chapter contributes to prior literature by presenting a case that produces the idea of integration in a different way adding to the complexity of its endeavour. It also contributes to the body of knowledge by redefining accounting standards not as signifiers but as actors in the organizational field. The IFRS number enters a realm that it originally was not meant for. The references that financial accounting produces circulate into the market, but they are able to travel back with authority when starting to mediate the inscriptions that organize time and space in the organization. When the IFRS number starts adding to the production of faithful and reliable records also within the organization it takes a different way back, into a different local setting, connecting it to new actors that carry its force. The route the number takes

therefore shifts with each new ambition that is to be translated. Hence the standards are active in the creation of a number *of the* future (chapter 5). The references created, however, also travel back into the organization and become active in creating value *for a* future. The future is at stake, but what it should be depends on the ambition that carries the number; and in the managerial realm, the ambitions are manifold. The aim is to grow, to motivate, to be entrepreneurial and to negotiate a future for the firm. This stands in tension with the need for closure in the financial accounting sphere. Integration of these different ambitions therefore solves dilemmas, but it also creates new dilemmas and tensions that need to be solved or worked around if integration is to prevail.

7 Overall discussion and concluding remarks

Over three chapters, this thesis investigates and discusses how IFRS are translated into and act within an organizational context. The first analysis chapter exemplifies how IFRS could be translated into the organization through integration work, placing them at the centre of attention – an OPP to the defined aim of integration. The subsequent chapters then take up the questions of how IFRS were able to act within the organization, both in the financial accounting as well as in the managerial realm through their many ties. This final chapter now aims to bring together the different discussions, striving to highlight what lies 'in between'.

7.1 The requirement of decision usefulness from an organizational point of view

The empirical material presented above identifies the impact of certain parts of IFRS as more than data-integration across accounting 'disciplines' (Hemmer & Labro, 2008; Quagli, 2011; Taipaleenmäki & Ikäheimo, 2011; Weißenberger & Angelkort, 2011; Zambon, 2011), just as it is more than a mere discourse and culture of financial economics (Power, 2010). This thesis gives an account of how 'fair' numbers are created in widely spanning networks carrying them. This theory challenges the rather stable understanding of faithful representation and relevance, and thus, decision usefulness, promoted by the IASB framework because it shows how calculative practice emerges in a nexus of different ambitions and interests where the key to closure is the persuasion of many other actors.

This study adds insight into how IFRS motivate the development of calculative practices which seek traces and faithful records across domains that are conventionally separated. Taking prior IFRS literature seriously, the case group should be a benchmark organization in relation to accounting quality and comparability, and thus, in terms of decision usefulness in the standard's intention. They are a large corporation, exposed to international markets (Burghstahler et al., 2006), originally anchored in a code-law tradition (Daske & Gebhardt, 2006) whose group accounts and the individual accounts of the largest subunits are subject to auditing by one of the 'Big Four' auditing companies (Glaum & Street, 2003; Street & Gray, 2002); these factors suggest

lower degrees of earnings management and increased accounting quality with the adoption of IFRS (Barth et al., 2008; Barth et al., 2006; Burghstahler et al., 2006), which is ultimately expected to reduce cost of capital (Hail & Leuz, 2009).

Considering the preceding discussions, the question is what can we learn from a benchmark case in terms of decision usefulness? Yes, there will be country specific differences in IFRS accounting practices (Nobes, 2006), but this point seems overly simplified when taking into account the different countries and different organizations that make up the case group and the network(s) around the number. The number travels across boundaries (Vollmer et al., 2009) but the endeavour is even more complicated than previously suggested. This is particularly the case in the context of fair value accounting. Fair values are imperfect measures (Dambrin & Robson, 2011) that re-present (Lennon, 2013) the future. Their creation as a circulating reference requires a wide expanding network and challenges the rather stable notions of 'faithful representation', 'transparency', 'comparability' and 'relevance' because these notions are negotiated and renegotiated over time, depending on the ambition of the number and the network carrying it.

The strong separation between financial and management accounting eminent in the majority of accounting studies to date prevents a further look at the fragile and complex process of the translation of international standards. Within the area of standard setting, the interrelation between numbers as signifiers or reference and organizational activity has been discussed (Robson, 1994b; Thomopson, 1987), but at the level of the organization there is little empirical ground. The case presented in this thesis is significant because it shows how IFRS were able to create themselves as an OPP in the organization, providing an empirical example of how numbers and calculative practices around goodwill and leasing activities were able to act not only in the financial accounting realm, but also mediating the relationship between financial accounting notions of value and operations management. The standards' influence on value creating activities, the planning processes as well as the motivation of managerial activity potentially changes the company's composition, and thus, has a deeper effect than mere representational concerns. The case suggests that whether there is heterogeneity or homogeneity in accounting practice is mediated by IFRS, not only in representation, but also in creation. The standards intend to unify calculative practices around the world by defining the faithful records that make up the firm, but comparability and relevance are also negotiated and renegotiated in a network that is not under the control of the standard setters, indeed, it is not even in their attention. Not only one network, but several competing and complementing networks mediate the understanding of the number in the organization and how it can circulate. The different ambitions that the number carries cannot be carried by only one network, but the dispersed calculative practices depend on each other, they become mutually constitutive in integrated accounting systems. The

territorialization taking place through accounting activities (Mennicken & Miller, 2012) becomes challenged in the tension between matched accounting systems and differing ambitions for and of the number because its implications for governance become ambiguous.

The presented material suggests that IFRS managed to unify calculative practices by redefining and re-problematizing a faithful representation of an investment. The impairment calculation tool was accepted as good quality and impairment losses were accepted as a legitimate representation of value by the managers and the auditors because the tool itself was a 'black box' (Latour, 1987) and dispersed responsibility for the number in a procedural objectivity (Mouck, 2004; Porter, 1995). The relevance of the produced numbers, however, was negotiated in different ways for the different ambitions at stake. The imperfect measures (Dambrin & Robson, 2011) around investments and leases needed much life support to travel across time and space, and, the number needed to convince different networks with differing interests and ambitions to become closed concern and reported as fair value. All of these ambitions connected a number to the future, but in different ways, posing a dilemma in times where the past could not motivate activities for the future.

Furthermore, financial accounting literature suggests that earnings management is critical because it provides a false picture of the firm's performance, making the reported information less relevant for the markets and thus decreasing its decision usefulness. The empirical material presented also shows traces of the concept earnings management inside the organization. Managers would seek to *manage* earnings in order to optimize their bonuses. This in itself is more complex than the often produced link to tax optimization. IFRS accounts have no connection to taxation in the German context. Nobes (2006) argues that for matters of convenience, tax related measurements might still gain influence in the consolidated IFRS statements. However, in the case group, the local GAAP reports and accounts were, to a large degree, prepared by shared service centres outside of the individual units and were of very little interest in the group otherwise. It was therefore hard to see them as a key motivation for accounting decisions. Moreover, the case shows that earnings management activities in integrated accounting systems are neither simple nor linked to only one interest. On the contrary, in an organization dependent on investments and business combinations, the effects of balance sheet political activities have ambiguous outcomes in relation to operating EBIT and EVA, creating uncertainty of the measures. This suggests that earnings management activities become of less importance to managers because they need to find other ways to engage themselves and optimize their payments. They become concerned with the standards because they need to understand how the balance sheet works, not in order to smooth earnings but in order to influence performance measurement. In the machine of investment, no one controls the total outcome of the number and therefore managing earnings or any other KPI is complex and potentially impossible in the ways suggested by previous

IFRS literature. Enforcement systems might be able to make group HQ aware of the consequences of non-compliance with the standards, but to harmonize and stabilize calculative practices within the organization, each division and CFO had to be interested and enrolled. Controversially, one could claim that the figures that circulate into the markets are a legitimate re-presentation of affairs *because* managers seek to optimize their outcome. In an integrated accounting system, the negotiations around the number are the substance of value creation and, thus, could be considered the relevant information.

Different notions of relevance inside and outside the organization, however, can also stand in tension. The example of operating leases shows how organization internal information needs and external requirements may stand in tension because of IFRS intervention. The additional disclosure requirements of IFRS mediated the rating agencies' expectations on information which resulted in evaluations unfavourable for the group. Internally, the additional information on operating lease obligations was not relevant; it was substituted by different inscriptions. Nonetheless, the financial and management accounting practices needed to change in order to accommodate the market's expectations. The influence of IFRS was only indirect, as the standards did not require the additional information on operating lease obligations, but the rating agencies did. Therefore, the organization had to change not only its re-presentation in statutory reporting, but also in management motivation and the organization of affairs.

Considering the many actors around the number and their negotiations and trials of strength that can lead to acceptance or objection at any step of the way, claims of accounting quality, comparability and transparency in particular, become difficult in the strong and stable form suggested by the relevant literature and promoted by the IASB. The uniformity brought about by the standards and by the integration work translating them into the local settings is accompanied by differences, even in a large international organization like the case group. These differences arise because group HQ can be powerful at times, but other actors may deny them power, instead forming their own practices and understandings of IFRS, not only in the managerial setting, but also for statutory reporting. The case shows how the closer link between financial and management accounting through IFRS (Jones & Luther, 2005; Quagli, 2011; Taipaleenmäki & Ikäheimo, 2011; Weißenberger & Angelkort, 2011; Zambon, 2011) becomes a refined theorization when focussing on the *how* in IFRS integration and the consequences of the different actions that negotiate and renegotiate integration. Rather than one accounting discipline dominating the other (Johnson & Kaplan, 1987; Zambon, 2011), the material presented in this case demonstrates how the IFRS in their centre of calculation, represented by the group HQ, can create unity in valuation and interest, but can also become overpowered by other actors along the way. In many ways, IFRS had reached the goal of becoming an OPP, enabling the standards to act within the organization, becoming unchallenged as a source of reference. Their

presence was a given in the organization. However, their ability to act in different settings was also challenged by competing interests.

Integration work and its consequences for management and financial accounting are neither stable nor comparable between different organizations because they are *inter alia* the outcome of the locally specific networks around calculative practices that become related through IFRS, but are driven by different ambitions, networks and economic interests. Not one single actor or one centre stands on top of all the inscriptions and calculations. In the tension of *form*ulation and creation, the organization and its environment define and re-define what integration, accounting quality and relevance can become. From such a perspective, reliability, relevance and faithful representation, and thus decision usefulness, collapse into the key concern of translation of interests, persuading and enrolling many allies to one particular expectation of the future.

Decision usefulness, based on faithful representation and relevance, therefore is a construction that builds on a wide network spanning over different disciplines and arenas of the organization and its calculative practices. The construction of comparability, transparency, and thus, *quality* is a fragile affair that needs to bind allies by creating circulating reference about the future. In turn, this number then becomes important not only for its intended users – the global financial markets – but also for the local practices and interests in the organization. Here, the integration of these different ambitions creates new dilemmas that have to be mended or accommodated by the organizational networks in place.

7.2 The idea of integration: calculating values from distributed traces

Accounting information in the case group was problematized in a way to foster a close link between financial and management accounting, creating a central role for IFRS notions of value and measurement practices. However, the integration work necessary to produce and maintain this link could never be fully closed, and neither did it lead to a complete dissolution of previously existing calculative practices. The dominance of result figures over a balance sheet view remained in the operative setting, but IFRS mediated the forms and measures around these activities, forcing supplements of the existing practices that pushed away some of the business connection in the group.

Finding ways to connect the different ambitions of the number can be interpreted as building bridges between international and local accounting ideology (Glaum, 2000; Glaum & Mandler, 1996), but the case shows that there is more at stake. There are no longer independent, clearly defined boundaries around the different practices that can be bridged, if they ever existed. Integration as a state of being instead is an idea, a process at best because

financial and management accounting are competing and complementing calculative practices. The forms and supplements that re-present the future of the firm complement each other to carry all the ambitions of the number; but they also stand in tension because they need to interpret the future in different ways. None of the networks can act in the organization without support or acceptance of the other. Yet, the organization did not become a-centred (Czarniawska, 2004; Quattrone & Hopper, 2001, 2005). Instead, the different calculative practices and their networks depend on each other, they feed off each other, building one whole, yet, they are not the same. Like conjoined twins, management and financial accounting are integrated and separate at the same time, sharing vital organs but carrying different ambitions. The different networks around the number cannot be collapsed into one and integration as a state of being therefore remains an ideal that companies strive for in order to solve their issues of communication and accounting quality. However, too much is at stake; integrating the different interests would be a technological nightmare (Dechow & Mouritsen, 2005). Moreover, it might be undesirable because at each step of integration something is lost. By collapsing different networks, matter of concern is closed into facts in order for the different actors to agree; but the different ambitions in the organizations are important for the sustainability of the business, for motivation, growth and representation. The connection exists, but keeping it alive is on-going work achieved by mending the overflows (Callon, 1998).

Integration is a process that never ceases to negotiate, shift and alter the different networks around calculative practices because the different ambitions each have their own right to exist, their own necessity and integrity. IFRS, in their centre of calculation, are able to act inside and outside the organization, linking to different calculative practices in the organization. However, IFRS cannot command the whole organization, and even in their wide network, their power is not a stable state. The link between the different calculative practices makes the different networks around the number dependent on each other, beneficial at times, when communication and work efficiency are enhanced by a shared understanding of things, and the ability to optimize financial outcomes across organizational boundaries. Nonetheless, integration can also create dilemmas, especially when important voices are lost in translation. In the case group, long-term strategic ambitions for example were foregone when focussing performance valuation on financial accounting notions of value. This study therefore contributes to existing literature by shedding light on the complexities of accounting integration and its relation to the business rather than investigating how competing business rationales can be integrated into one accounting system (Dechow & Mouritsen, 2005; Quattrone & Hopper, 2005, 2006). In the tension between different interests dilemmas arise. While financial accounting is concerned with the creation of a value *of the* future which needs closure and clarity, management accounting is about creating value *for a* future, opening up for different ambitions and concerns.

7.3 Concluding remarks

So, how do IFRS act within an organizational context? In the case group, IFRS, in their liaison with group accounting, managed to associate with many parts of the organization. Although different interests and ambitions in accounting remained, there was no longer any avoidance of the standard requirements. Not only with regard to the association with accounting systems and group accounting, but also in the interrelation with bonus systems and central inscriptions; this ensured that financial accounting notions of value were part of managerial concern and decision making. Group accounting and financial accounting notions of value became important in the organization because a strong link between financial and management accounting was created as the only accepted form of practice. This bound ambitions and calculations that otherwise would have been preferred to be separated.

The distribution of calculations linked financial and management accounting closely in the aim of closing concerns for financial reporting. Values were constructed in an interplay of dispersed traces, each contributing a part of the puzzle, none able to conduct the calculation alone. In its distribution, the calculation was simplified into parts and de-subjectified when gathered, creating a circulating reference that could travel across boundaries. Acceleration and amplification was won, but at a cost, because integration would bring forward some interests while translating or silencing others.

The interplay enabled a shared understanding and language, which fostered communication and facilitated agreement about definitions and measurements of performance. At the same time, however, the link also forced communication and connections, transforming operations management by including an enhanced responsibility for organizational substance. Managers were suddenly no longer able to fully assess the consequences of their own actions without including financial accountants. Both investments and performance evaluation were transformed into something closer to financial accounting, bringing ambiguity to and alienation with core concerns of the business. The close link to financial accounting created conflict and dilemmas in operations management because standardizing accounting practice widened the network around the number, including parties that would otherwise have been independent. Auditors' and markets' expectations suddenly came into play that presumed a 'normal' development of performance; while management accounting also aimed to be ambitious, to motivate the future to be different from the past. Different perceptions of relevance stood in tension at times, collapsing both financial and management accounting activities into one key concern: the persuasion and enrolment of a wide network to carry a certain representation of the future. The integration efforts of the group therefore enabled the closing of concern about a number *of the* future in financial

accounting, but they also brought new dilemmas to the creation of value *for a* future.

This thesis contributes to previous research by taking up the complexities, efforts and dilemmas related to the translation of IFRS into a globally acting, decentralized organization and the activity of the standards in the local setting. It extends the traces of accounting numbers, goodwill impairment values and leasing obligations in particular, by giving a refined theorization of the blurred boundaries and the interplays between financial and management accounting. The standards are presented as actors in the organizational field, linking to value creation as well as value representation. Numbers *of* and *for* the future are constituted in a star-shaped form; it is not a reversible chain of transformation but distributed traces that create the circulating reference.

When utilizing a certain theoretical lens, some aspects of research become more important than others, thereby framing the study and the understanding of the findings. By choosing an ANT approach, this study therefore brought insights into the interplay of financial and management accounting practices, highlighting the shifts and transformations in the networks that carry a number. Both in relation to what we can learn through the theoretical perspective, and in relation to the empirical design, future research can add to the knowledge gained in this study.

Turning to the empirical design first, the case organization was chosen because it is globally active in diverse markets; because of its German accounting roots; and because of its extensive experience with IFRS. The group could be considered a benchmark case in integration, which enables insights into what integration might be or become. Taking an ANT approach meant to follow the traces of integration through different times and spaces. With the initial implementation of IFRS about 10 years ago, following these traces to their inception also meant following people's memories at times, not only their actions. Because of the extensive experience with IFRS, some negotiations, for example around the implementation of the impairment tool or the definition of CGUs, moved into the background of this study. Future research could bring these aspects to the foreground by investigating companies that are in the process of implementing IFRS. The empirical scope could also be widened by studies conducted in other industries, enabling the investigation of different expertise and shifts in expertise with regards to, for example, financial instruments, research and development, or pension accounting. Including external parties like auditors, consultants, rating agencies or financial institutions in a wider scope could extend the traces of the number even further. Possible areas of interest here could be the role of these actors in shaping financial reporting and operations management in turn; or the shaping of perceived boundaries around the organization and how they shift or are challenged in the networks.

With respect to the theoretical approach, future research opportunities can arise when different theories are utilized to add to the findings in this thesis.

While a network perspective brings knowledge about fluidity and movement, an institutional approach would enable the stability of practices or perceived boundaries inside, around and outside the organization to be investigated. The shared language and shared understanding, highly valued by the informants in this study, might then move to the foreground. A practice theoretical lens on the other hand would accent the cultural aspects of the situation. Much could be learned from the cultural reconfiguration of organizations through the emerging, altering and maintaining of accounting practice in the light of IFRS, taking into account the rules, standards and intentionality that define daily practice. An explicit focus on the ways in which practice is stabilized as institutional knowledge and drawn upon in the processes of decision making could bring forward the interplay of technical and interpretive accounting processes. Furthermore, taking different actors like standard setters, governments, auditors, rating agencies, consultants and others even more into account with their institutionalized roles could open up an avenue to widen the scope of previous socio-political financial accounting research, which is mainly focussed on standard setters and their activities; expanding the traces of standard intervention from a state/government-organization relation to a political field of accounting integration in the organizational realm.

Linking now back to the reflections of the head of group accounting on his role in the organization (see prologue), in hindsight it is possible to see why, for him, IFRS accounting was "the heart and centrepiece of the organization", building the "basis of all corporate management". This study suggests that IFRS are active both in financial accounting and operations management. Although accounting practices are captured in a tension between standardization and individual business interests, the presence of the standards is strong and their influence is felt throughout the organization. Financial and management accounting are integrated and separated at the same time, giving life support to each other but also fulfilling different aims. The interplay between these practices, therefore, cannot reach a stable state. Instead, integration can be understood as a process that binds many different actors in an act of translation that will never end.

Abbreviations

ANT: Actor-Network Theory
CEO: Chief Executive Officer
CFO: Chief Financial Officer
CGU: Cash Generating Unit
DCF: Discounted Cash Flow
EBIT: Earnings Before Interest and Tax
ERP: Enterprise Resource Planning
EU: European Union
EVA: Economic Value Added
GAAP: Generally Accepted Accounting Principles
HQ: Head Quarters
IAS: International Accounting Standards
IASB: International Accounting Standards Board
IFRS: International Financial Reporting Standards
KPI: Key Performance Indicator
OPP: Obligatory Passage Point
PPA: Purchase Price Allocation
US: United States
US-GAAP: United States Generally Accepted Accounting Principles

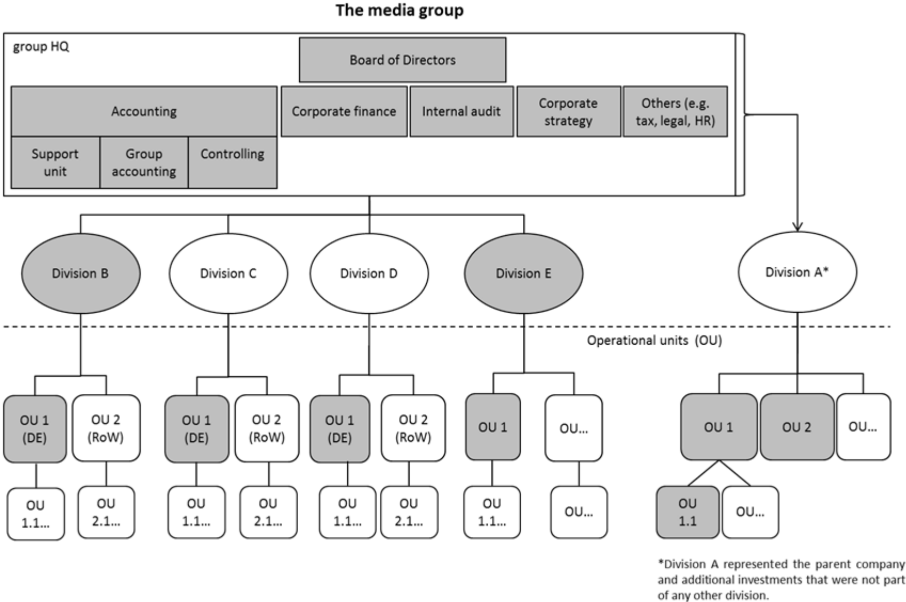
List of IFRS

The standard texts have been quoted from
IASB. (2012). *International Financial Reporting Standards: official pronouncements issued at 1 January 2012*, Part A (conceptual framework and requirements). London: IFRS Foundation.

Preface to IFRS, last revised 2010
Conceptual Framework, last revised 2010
IAS 36: *Impairment of Assets*, last revised 2008
IAS 38: *Intangible Assets*, last revised 2008
IFRS 3: *Business Combinations*, last revised 2008
IFRS 5: *Non-current Assets Held for Sale and Discontinued Operations*, published 2004
IFRS 8: *Segment Reporting*, published 2006
IFRS 13: *Fair Value Measurement*, published 2011

Appendix 1: Organizational chart

Interviews have been conducted in all units marked in grey.



Appendix 2: List of empirical material

Audiotaped interviews

Phase 1: November-December 2010

Date	Position	Lenth (hrs:min)
2010-09-23	Vice head of group accounting, group HQ	03:49
2010-11-11	Staff group accounting, group HQ	01:16
2010-11-12	IFRS principles responsible, group accounting, group HQ	01:36
2010-11-15	Staff internal audit, group HQ	01:37
2010-11-16	Head of corporate finance, group HQ	01:18
2010-11-16	Staff controlling, group HQ	00:45
2010-11-23	Valuation expert, support unit, group HQ	01:48
2010-11-24	Staff group accounting, group HQ	01:40
2010-11-24	Vice head of shared accounting service centre	01:20
2010-11-25	Vice head of controlling, group HQ	00:57
2010-11-25	Vice head of corporate strategy, group HQ	01:33
2010-11-29	Staff support unit, group HQ	01:22
2010-11-30	Head of group accounting, group HQ	01:58
2010-11-30	Staff support unit, group HQ	01:11
2010-12-01	Head of controlling, group HQ	01:41
2010-12-01	Vice head of support unit, group HQ	01:27
2010-12-03	CFO, OU 1.1, division A	01:22
2010-12-06	Staff support unit, group HQ	01:15
2010-12-08	Head of reporting, OU 1, division E	02:46
2010-12-09	CFO, OU 2, division A	01:35
2010-12-09	Head of accounting, group HQ	01:50
2010-12-10	Head of reporting, OU 1, division A	01:44
2010-12-13	Head of management reporting, division B	01:14
2010-12-13	Head of group accounting, division B	01:27
2010-12-14	Vice head of HR, group HQ and remuneration expert HR, group HQ	00:52
2010-12-15	Head of management reporting, division E and staff management reporting, division E	01:48
2010-12-15	Vice head of group accounting, group HQ	02:03
2010-12-20	Head of shared accounting service centre	01:00
2010-12-21	Vice head of tax, group HQ	00:50

Phase 2: February-March 2011

Date	Position	Lenth (hrs:min)
2011-02-21	Head of controlling, OU 1, division B	02:03
2011-02-23	Vice head of group accounting, group HQ	01:13
2011-02-24	CFO, OU 1, division E	00:34
2011-02-28	Head of accounting, group HQ	00:57
2011-02-28	Head of group accounting, group HQ	01:24
2011-03-02	Head of controlling, OU 1, division E	01:51
2011-03-03	Head of financial reporting, OU 1, division D	01:10
2011-03-08	Head of accounting, group HQ and head of group accounting, group HQ	00:58
2011-03-08	Head of controlling, group HQ	00:51
2011-03-08	Vice head of corporate strategy, group HQ	00:40
2011-03-10	Head of accounting and reporting, OU 1, division C	01:44
2011-03-10	Head of controlling and management reporting, OU 1, division D	01:01

Attended company meetings

Weekly group accounting department routine, group HQ; attendance during the observation phases.

Monthly IFRS update, group HQ; attended twice.

Reporting and consolidation systems training, group HQ; attended one day seminar.

Annual IFRS conference for CFOs and accountants in the group; attended once.

Company internal documents and websites

Group and divisional IFRS accounting handbooks

Group IFRS online platform summarizing all standards, IFRS related guidelines and statements

Group IFRS newsfeeds and newsletters to the companies

Group KPI definitions (calculation sheets)

Budget for the board of directors, group HQ, 2010

Presentation on impairment risk and losses in the group to the board of directors, 2009

Guidelines for the board of directors on financial policy
Guidelines to the application of EVA in the group
Guidelines for management
Corporate value statement of the group and code of conduct, 2010
Group chronicles, 2010
Group employee satisfaction survey results, 2010

Group annual reports and other textual accounts

Personal diaries from my observations in the group
Annual group accounts, 2009, 2010, 2011
Group official newsletter on current developments
Group official website
Group employee magazine

Appendix 3: Simplified model of the impairment testing tool

Calculation sheet according to IAS 36 *Impairment of Assets*

Field for data entry
Automated entry

CGU definition

The companies were required to enter information to identify the respective CGU in the management accounting database, like e.g. name, code and share percentage

Impairment test calculation

Calculation of FV less costs of disposal:	Budget 20X1	Trend I 20x2	Trend II 20X3	Add. Year I 20X4	Add. Year II 20X5		Terminal value	
Operating free CF								
Group level adjustments (deferred taxes, amortization on step ups)								
Country specific standard tax rate								
Adjustements for national tax payments								
Other adjustments after tax:								
…								
…								
…								
Operating free CF after adjustments								Add. Year II FCF
Discount rate								Growth rate
								Terminal value
Discounted operating free CF						Total:		
Cost to sell								
Fair value less costs of disposal								

Calculation of carrying amount:
Relevant positions from the system
…
…
…
Total carrying ammount

Fair value less costs of disposal
Value in use
Recoverable amount
Carrying amount
Impairment loss

References

Aboody, D., Barth, M. E., & Kasznik, R. (1999). Revaluations of fixed assets and future firm performance: evidence from the UK. *Journal of Accounting & Economics, 26*(1-3), 149-178.

Ahrens, T., & Chapman, C. S. (2007). Management accounting as practice. *Accounting, Organizations and Society, 32*(1-2), 1-27.

Alanezi, F. S., Alfaraih, M. M., Alrashaid, E. A., & Albolushi, S. S. (2012). Dual/joint auditors and the level of compliance with international financial reporting standards (IFRS-required disclosure). *Journal of Economic and Administrative Sciences, 28*(2), 109-129.

Alvesson, M., & Kärreman, D. (2007). Constructing mystery: empirical matters in theory development. *Academy of Management Review, 32*(4), 1265-1281.

Alvesson, M., & Sköldberg, K. (2000). *Reflexive methodology: new vistas for qualitative research*. London: Sage Publications Ltd.

Andon, P., Baxter, J., & Chua, W. F. (2007). Accounting change as relational drifting: a field study of experiments with performance measurement. *Management Accounting Research, 18*(2), 273-308. Doi: 10.1016/j.mar.2006.06.007

Archer, S., Delvaille, P., & McLeay, S. (1995). The measurement of harmonization and the comparability of financial statement items: within-country and between-country effects. *Accounting & Business Research, 25*(98), 67-80.

Arnold, P. J., & Oakes, L. S. (1998). Accounting as discursive construction: the relationship between statement of financial accounting standards no. 106 and the dismantling of retiree health benefits. *Accounting, Organizations and Society, 23*(2), 129-153. Doi: 10.1016/S0361-3682(97)00005-6

Ashbaugh, H., & Morton, P. (2001). Domestic accounting standards, international accounting standards, and the predictability of earnings. *Journal of Accounting Research, 39*(3), 417-434.

Aussenegg, W., Inwinkl, P., Jelic, R., & Schneider, G. (2011). Earnings management behavior and choice of accounting standards. In JIBS (Ed.), *JIBS working papers No. 2011-3* (pp. 1-36). Jönköping: Jönköping University.

Ball, R., Robin, A., & Wu, J. S. (2003). Incentives versus standards: properties of accounting income in four East Asian countries. *Journal of Accounting and Economics, 36*(1-3), 235-270.

Barlev, B., & Haddad, J. R. (2003). Fair value accounting and the management of the firm. *Critical Perspectives on Accounting, 14*(4), 383-415.

Barlev, B., & Haddad, J. R. (2007). Harmonization, comparability, and fair value accounting. *Journal of Accounting, Auditing & Finance, 22*(3), 493-509. Doi: 10.1177/0148558x0702200307

Barth, M. E., & Landsman, W. R. (2010). How did financial reporting contribute to the financial crisis? *European Accounting Review, 19*(3), 399-423. Doi: 10.1080/09638180.2010.498619

Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research, 46*(3), 467-498.

Barth, M. E., Landsman, W. R., Lang, M. H., & Williams, C. D. (2006). Accounting quality: international accounting standards and US GAAP. *SSRN eLibrary*.

Belkaoui, A. (1978). Linguistic relativity in accounting. *Accounting, Organizations and Society, 3*(2), 97-104. Doi: 10.1016/0361-3682(78)90019-3

Boland, R. J. (1982). Myth and technology in the accounting profession. *Journal of Management Studies, 19*(1), 109-127. Doi: 10.1111/j.1467-6486.1982.tb00063.x

Bova, F., & Pereira, R. (2012). The determinants and consequences of heterogeneous IFRS compliance levels following mandatory IFRS adoption: evidence from a developing country. *Journal of International Accounting Research, 11*(1), 83-111.

Bowman, C., & Ambrosini, V. (2000). Value creation versus value capture: towards a coherent definition of value in strategy. *British Journal of Management, 11*(1), 1-15. Doi: 10.1111/1467-8551.00147

Briers, M., & Chua, W. F. (2001). The role of actor-networks and boundary objects in management accounting change: a field study of an implementation of activity-based costing. *Accounting, Organizations and Society, 26*(3), 237-269.

Bromwich, M. (2007). Fair values; imaginary prices and mystical markets. In P. J. Walton (Ed.), *The Routledge companion to fair value in financial reporting*. London: Routledge.

Brown, P., & Tarca, A. (2005). A commentary on issues relating to the enforcement of international financial reporting standards in the EU. *European Accounting Review, 14*(1), 181-212.

Burghstahler, D. C., Hail, L., & Leuz, C. (2006). The importance of reporting incentives: earnings management in European private and public firms. *Accounting Review, 81*(5), 983-1016.

Byard, D., Li, Y., & Weintrop, J. (2006). Corporate governance and the quality of financial analysts information. *Journal of Accounting & Public Policy, 25*(5), 609-625.

Callon, M. (1986). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St. Brieuc Bay. In J. Law (Ed.), *Power, action, and belief: a new sociology of knowledge?* (pp. 196-233). London: Routledge & Kegan Paul.

Callon, M. (1998). An essay on framing and overflowing: economic externalities revisited by sociology. In M. Callon (Ed.), *The laws of the markets* (pp. 244-269). Oxford: Blackwell.

Callon, M., & Latour, B. (1981). Unscrewing the big leviathan: how actors macro-structure reality and how sociologists help them to do so. In K. D. Knorr-Cetina & A. V. Cicourel (Eds.), *Advances in social theory and methodology: toward an integration of micro- and macro-sociologies* (pp. 277-303). Boston: Routledge & Kegan Paul.

Carmona, S., & Trombetta, M. (2008). On the global acceptance of IAS/IFRS accounting standards: the logic and implications of the principles-based system. *Journal of Accounting and Public Policy, 27*(6), 455-461. Doi: 10.1016/j.jaccpubpol.2008.09.003

Chan-Olmsted, S. M. (2006). *Competitive strategy for media firms: strategic and brand management in changing media markets*: New York: Routledge.

Chua, W. F. (1995). Experts, networks and inscriptions in the fabrication of accounting images: a story of the representation of three public hospitals. *Accounting, Organizations and Society, 20*(2-3), 111-145.

Cooper, D. J., & Robson, K. (2006). Accounting, professions and regulation: locating the sites of professionalization. *Accounting, Organizations and Society, 31*(4-5), 415-444. Doi: 10.1016/j.aos.2006.03.003

Cuganesan, S., Boedker, C., & Guthrie, J. (2007). Enrolling discourse consumers to affect material intellectual capital practice. *Accounting, Auditing & Accountability Journal, 20*(6), 883-883.

Czarniawska, B. (2004). On time, space, and action nets. *Organization, 11*(6), 773-791.

Dambrin, C., & Robson, K. (2011). Tracing performance in the pharmaceutical industry: ambivalence, opacity and the performativity of flawed measures. *Accounting, Organizations and Society, 36*(7), 428-455. Doi: 10.1016/j.aos.2011.07.006

Daske, H., & Gebhardt, G. (2006). International financial reporting standards and experts' perceptions of disclosure quality. *Abacus, 42*(3/4), 461-498.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: early evidence on the economic consequences. *Journal of Accounting Research, 46*(5), 1085-1142.

Dechow, N., & Mouritsen, J. (2005). Enterprise resource planning systems, management control and the quest for integration. *Accounting, Organizations and Society, 30*(7-8), 691-733. Doi: 10.1016/j.aos.2004.11.004

Dechow, P. M., Myers, L. A., & Shakespeare, C. (2010). Fair value accounting and gains from asset securitizations: a convenient earnings management tool with compensation side-benefits. *Journal of Accounting and Economics, 49*(1–2), 2-25. Doi: 10.1016/j.jacceco.2009.09.006

Ernstberger, J., Stich, M., & Vogler, O. (2008). Economic consequences of the German reforms on the enforcement of IFRS. *SSRN eLibrary*.

Ewert, R., & Wagenhofer, A. (2006). Management accounting theory and practice in German-speaking countries. In C. S. Chapman, A. G. Hopwood & M. D. Shields (Eds.), *Handbooks of management accounting research* (Vol. 2, pp. 1035-1069): Elsevier.

Ezzamel, M. (1994). Organizational change and accounting: understanding the budgeting system in its organizational context. *Organization Studies, 15*(2), 213-240. Doi: 10.1177/017084069401500203

Frandsen, A.-C. (2009). From psoriasis to a number and back. *Information and Organization, 19*(2), 103-128. Doi: 10.1016/j.infoandorg.2009.02.001

Glaum, M. (2000). Bridging the GAAP: The changing attitude of German managers towards Anglo-American accounting and accounting harmonization. *Journal of International Financial Management & Accounting, 11*(1), 23-47.

Glaum, M., & Mandler, U. (1996). Global accounting harmonization from a German perspective: bridging the GAAP. *Journal of International Financial Management & Accounting, 7*(3), 215-242.

Glaum, M., & Mandler, U. (1997). German managers' attitudes towards Anglo-American accounting: results from an empirical study on global accounting harmonization. *The International Journal of Accounting, 32*(4), 463-485.

Glaum, M., Schmidt, P., Street, D. L., & Vogel, S. (2012). Compliance with IFRS 3- and IAS 36-required disclosures across 17 European countries: company- and country-level determinants. *Accounting and Business Research*, 1-42. Doi: 10.1080/00014788.2012.711131

Glaum, M., & Street, D. L. (2003). Compliance with the disclosure requirements of Germany's New Market: IAS versus US GAAP. *Journal of International Financial Management & Accounting, 14*(1), 64-100.

Glückler, J., & Armbrüster, T. (2003). Bridging uncertainty in management consulting: the mechanisms of trust and networked reputation. *Organization Studies, 24*(2), 269-297. Doi: 10.1177/0170840603242004

Gwilliam, D., & Jackson, R. H. G. (2008). Fair value in financial reporting: Problems and pitfalls in practice: a case study analysis of the use of fair valuation at Enron. *Accounting Forum, 32*(3), 240-259.

Hail, L., & Leuz, C. (2009). Cost of capital effects and changes in growth expectations around U.S. Cross-listings. *Journal of Financial Economics, 93*(3), 428-454.

Haller, A. (2003). Accounting in Germany. In P. J. Walton, A. Haller & B. Raffournier (Eds.), *International accounting* (pp. 91-128). London: Thomson Learning.

Hammersley, M., & Atkinson, P. (2007). *Ethnography: principles in practice* (3. ed.). London: Routledge.

Heaton, J. C., Lucas, D., & McDonald, R. L. (2010). Is mark-to-market accounting destabilizing? Analysis and implications for policy. *Journal of Monetary Economics, 57*(1), 64-75.

Hemmer, T., & Labro, E. (2008). On the optimal relationship between the properties of managerial and financial reporting systems. *Journal of Accounting Research, 46*(5), 1209-1240.

Hines, R. D. (1988). Financial accounting: in communicating reality, we construct reality. *Accounting, Organizations and Society, 13*(3), 251-261. Doi: 10.1016/0361-3682(88)90003-7

Hines, R. D. (1989). Financial accounting knowledge, conceptual framework projects and the social construction of the accounting profession. *Accounting, Auditing & Accountability Journal, 2*(2), 72-92. Doi: 10.1108/09513578910132268

Hitz, J.-M. (2007). The decision usefulness of fair value accounting - a theoretical perspective. *European Accounting Review, 16*(2), 323-362.

Hopper, T., Kirkham, L., Scapens, R. W., & Turley, S. (1992). Does financial accounting dominate management accounting: a research note. *Management Accounting Research, 3*(4), 307-311.

Hopwood, A. G. (1994). Some reflections on 'The harmonizing of accounting within the EU'. *European Accounting Review, 3*(2), 241-253.

Huikku, J., Mouritsen, J., & Silvola, H. (2013). *The future as an object of inquiry: the production of goodwill impairment values.* Paper presented at the school of accounting seminar series, Australian School of Business, University of New South Wales, Australia.

Hussein, M. E. (1981). The innovative process in financial accounting standards setting. *Accounting, Organizations and Society, 6*(1), 27-37.

IASB. (2012). *International financial reporting standards: official pronouncements issued at 1 January 2012*, Part A (conceptual framework and requirements). London: IFRS Foundation.

IASB. (2013). Who we are and what we do. Retrieved from http://www.ifrs.org/The-organisation/Documents/2013/Who-We-Are-English-2013.pdf, 27 Nov 2013.

Ittner, C. D., & Larcker, D. F. (2001). Assessing empirical research in managerial accounting: a value-based management perspective. *Journal of Accounting and Economics, 32*(1–3), 349-410. Doi: 10.1016/S0165-4101(01)00026-X

Jahangir Ali, M., Ahmed, K., & Henry, D. (2004). Disclosure compliance with national accounting standards by listed companies in South Asia. *Accounting & Business Research, 34*(3), 183-199.

Johnson, H. T., & Kaplan, R. S. (1987). *Relevance lost: the rise and fall of management accounting.* Boston: Harvard Business School Press.

Jones, T. C., & Luther, R. (2005). anticipating the impact of IFRS on the management of German manufacturing companies: some observations from a British perspective. *Accounting in Europe, 2*, 165-193.

Joseph, N., Turley, S., Burns, J., Lewis, L., Scapens, R., & Southworth, A. (1996). External financial reporting and management information: a survey of U.K. management accountants. *Management Accounting Research, 7*(1), 73-93.

Justesen, L., & Mouritsen, J. (2009). The triple visual: translations between photographs, 3-D visualizations and calculations.. *Accounting, Auditing & Accountability Journal, 22*(6), 973-990. Doi: 10.1108/09513570910980490

Kaplan, R. S. (1984). The evolution of management accounting. *The Accounting Review, 59*(3), 390-418.

Kreiner, K., & Mouritsen, J. (2005). The analytical interview: relevance beyond reflexivity. In S. Tengblad, R. Solli & B. Czarniawska (Eds.), *The art of science* (pp. 153-176). Malmö: Liber & Copenhagen Business School Press.

Küting, K., & Zwirner, C. (2004). Die Bewertung von Medienunternehmen. *Unternehmensbewertung & Management, 7*, 251-255.

Küting, K., & Zwirner, C. (2006). Bewertung - spezifische Probleme der Werttreiber von Film- und Medienunternehmen. In C. Scholz (Ed.), *Handbuch Medienmanagement* (pp. 919-939). Berlin: Springer.

Landsman, W. R. (2007). Is fair value accounting information relevant and reliable? Evidence from capital market research. *Accounting & Business Research*, 19-30.

Latour, B. (1986a). The power of associations. In J. Law (Ed.), *Power, action, and belief: a new sociology of knowledge*. London: Routledge & Kegan Paul.

Latour, B. (1986b). Visualization and cognition: drawing things together. *Knowledge and Society: Studies in the Sociology of Culture and Present, 6*, 1-40.

Latour, B. (1987). *Science in action: how to follow scientists and engineers through society*. Cambridge, Mass.: Harvard Univ. Press.

Latour, B. (1999). *Pandora's hope: essays on the reality of science studies*. Cambridge: MA: Harvard University Press.

Latour, B. (2005). *Reassembling the social: an introduction to actor-network-theory*. Oxford: University Press.

Latour, B., & Woolgar, S. (1986). *Laboratory life: the construction of scientific facts* (second ed.). Princeton: Princeton University Press.

Laux, C., & Leuz, C. (2009). The crisis of fair-value accounting: making sense of the recent debate. *Accounting, Organizations and Society, 34*(6–7), 826-834. Doi: 10.1016/j.aos.2009.04.003

Laux, C., & Leuz, C. (2010). Did fair-value accounting contribute to the financial crisis? *Journal of Economic Perspectives, 24*(1), 93-118.

Law, J. (2004). *After method: mess in social science research*. New York: Routledge.

Lennon, N. J. (2013). *Accounting qualities in practice: rhizomatic stories of representational faithfulness, decision making and control*. Copenhagen: Copenhagen Business School. (PhD Series 6.2013)

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: an international comparison. *Journal of Financial Economics, 69*(3), 505-527.

Leyendecker, H. (2011). Siemens Korruptionsaffäre: das ist wie bei der Mafia. Retrieved from http://www.sueddeutsche.de/wirtschaft/siemens-korruptionsaffaere-das-ist-wie-bei-der-mafia-1.1046507, website: sueddeutsche.de.

Lowe, A., & Koh, B. (2007). Inscribing the organization: representations in dispute between accounting and production. *Critical Perspectives on Accounting, 18*(8), 952-974. Doi: 10.1016/j.cpa.2006.05.001

Macve, R. (2010). The case for deprival value. *Abacus, 46*(1), 111-119.

Martin, J. L. (2003). Business valuation basics. *The CPA Journal, 73*(1), 59.

Martin, R. D., Rich, J. S., & Wilks, T. J. (2006). Auditing fair value measurements: a synthesis of relevant research. *Accounting Horizons, 20*(3), 287-303.

McDonald, S. (2005). Studying actions in context: a qualitative shadowing method for organizational research. *Qualitative Research, 5*(4), 455-473. Doi: 10.1177/1468794105056923

Mennicken, A. (2008). Connecting worlds: the translation of international auditing standards into post-soviet audit practice. *Accounting, Organizations and Society, 33*(4–5), 384-414. Doi: 10.1016/j.aos.2007.06.001

Mennicken, A., & Miller, P. (2012). Accounting, territorialization and power. *Foucault Studies, 13*, 4-24.

Mennicken, A., & Millo, Y. (2012). *Testing values: financialization and the emergence of impairment rules*. Paper presented at the Interdisciplinary Perspectives on Accounting Conference, 11 - 13 July, Cardiff, UK.

Mezias, S. J., & Scarselletta, M. (1994). Resolving financial reporting problems: an institutional analysis of the process. *Administrative Science Quarterly, 39*(4), 654-678.

Miller, P. (1991). Accounting innovation beyond the enterprise: problematizing investment decisions and programming economic growth in the U.K. in the 1960s. *Accounting, Organizations and Society, 16*(8), 733-762. Doi: 10.1016/0361-3682(91)90022-7

Miller, P. (1992). Accounting and objectivity: the invention of calculating selves and calculable spaces. *Annals of Scholarship* (Vol. 9, pp. 61-86).

Miller, P. (1994). Accounting as Social and Institutional Practice: an Introduction. In A. G. Hopwood & P. Miller (Eds.), *Accounting as social and institutional practice* (pp. 1-39). Cambridge: Cambridge Univ. Press.

Miller, P. (2001). Governing by numbers: why calculative practices matter. *Social research, 68*(2), 379-396.

Miller, P., & Rose, N. (1990). Governing economic life. *Economy and Society, 19*(1), 1-31.

Morris, T., & Empson, L. (1998). Organization and expertise: an exploration of knowledge bases and the management of accounting and consulting firms. *Accounting, Organizations and Society, 23*(5-6), 609-624. Doi: 10.1016/s0361-3682(98)00032-4

Morrow Jr, J. L., Sirmon, D. G., Hitt, M. A., & Holcomb, T. R. (2007). Creating value in the face of declining performance: firm strategies and organizational recovery. *Strategic Management Journal, 28*(3), 271-283. Doi: 10.2307/20142438

Mouck, T. (2004). Institutional reality, financial reporting and the rules of the game. *Accounting, Organizations and Society, 29*(5-6), 525-541.

Mouritsen, J. (1999). The flexible firm: strategies for a subcontractor's management control. *Accounting, Organizations and Society, 24*(1), 31-55. Doi: 10.1016/S0361-3682(97)00059-7

Mouritsen, J., Hansen, A., & Hansen, C. Ø. (2009). Short and long translations: management accounting calculations and innovation management. *Accounting, Organizations and Society, 34*(6–7), 738-754. Doi: 10.1016/j.aos.2009.01.006

Munro, R. (1993). Just when you thought it safe to enter the water: accountability, language games and multiple control technologies. *Accounting, Management and Information Technologies, 3*(4), 249-271. Doi: 10.1016/0959-8022(93)90020-7

Murphy, A. B. (2000). The impact of adopting international accounting standards on the harmonization of accounting practices. *The International Journal of Accounting, 35*(4), 471-493. Doi: 10.1016/S0020-7063(00)00074-1

Nobes, C. (2006). The survival of international differences under IFRS: towards a research agenda. *Accounting and Business Research, 36*(3), 233-245. Doi: 10.1080/00014788.2006.9730023

Pellens, B., Fülbier, R. U., & Gassen, J. (2004). *Internationale Rechnungslegung* (5 ed.). Stuttgart: Schäffer-Poeschel Verlag.

Penman, S. H. (2007). Financial reporting quality: is fair value a plus or a minus? *Accounting and Business Research*, *special issue*, 33-43.

Pentland, B. T. (1993). Getting comfortable with the numbers: auditing and the micro-production of macro-order. *Accounting, Organizations and Society, 18*(7–8), 605-620. Doi: 10.1016/0361-3682(93)90045-8

Perry, J., & Nöelke, A. (2005). International accounting standard setting: a network approach. *Business and Politics, 7*(3), 1-31.

Plantin, G., Sapra, H., & Shin, H. S. (2008). Marking-to-market: panacea or pandora's box? *Journal of Accounting Research, 46*(2), 435-460.

Porter, T. M. (1994). Making things quantitative. *Science in Context, 7*(03), 389-407. Doi:10.1017/S0269889700001757

Porter, T. M. (1995). *Trust in numbers: the pursuit of objectivity in science and public life.* Princeton, New Jersey: Princeton University Press.

Power, M. (1996). Making things auditable. *Accounting, Organizations and Society, 21*(2–3), 289-315. Doi: 10.1016/0361-3682(95)00004-6

Power, M. (2003). Auditing and the production of legitimacy. *Accounting, Organizations and Society, 28*(4), 379-394.

Power, M. (2010). Fair value accounting, financial economics and the transformation of reliability. *Accounting and Business Research, 40*(3), 197-210. Doi: 10.1080/00014788.2010.9663394

Preston, A. M. (2006). Enabling, enacting and maintaining action at a distance: an historical case study of the role of accounts in the reduction of the Navajo herds. *Accounting, Organizations and Society, 31*(6), 559-578. Doi: 10.1016/j.aos.2005.03.003

Quagli, A. (2011). Goodwill accounting as missing link between financial and management accounting: literature review and research agenda. *Financial Reporting, special issue*, 17-39.

Qu, S. Q., & Cooper, D. J. (2011). The role of inscriptions in producing a balanced scorecard. *Accounting, Organizations and Society, 36*(6), 344-362. Doi: 10.1016/j.aos.2011.06.002

Quattrone, P., & Hopper, T. (2001). What does organizational change mean? Speculations on a taken for granted category. *Management Accounting Research, 12*(4), 403-435. Doi: 10.1006/mare.2001.0176

Quattrone, P., & Hopper, T. (2005). A 'time–space odyssey': management control systems in two multinational organizations. *Accounting, Organizations and Society, 30*(7–8), 735-764. Doi: 10.1016/j.aos.2003.10.006

Quattrone, P., & Hopper, T. (2006). What is IT?: SAP, accounting, and visibility in a multinational organization. *Information and Organization, 16*(3), 212-250. Doi: 10.1016/j.infoandorg.2006.06.001

Richardson, A. J. (2009). Regulatory networks for accounting and auditing standards: a social network analysis of Canadian and international standard-setting. *Accounting, Organizations and Society, 34*(5), 571-588. Doi: 10.1016/j.aos.2008.11.005

Robson, K. (1991). On the arenas of accounting change: the process of translation. *Accounting, Organizations and Society, 16*(5–6), 547-570. Doi: 10.1016/0361-3682(91)90041-C

Robson, K. (1992). Accounting numbers as "inscription": action at a distance and the development of accounting. *Accounting, Organizations and Society, 17*(7), 685-708. Doi: 10.1016/0361-3682(92)90019-o

Robson, K. (1994a). Inflation accounting and action at a distance: the Sandilands episode. *Accounting, Organizations and Society, 19*(1), 45-82. Doi: 10.1016/0361-3682(94)90012-4

Robson, K. (1994b). Connecting science to the economic: accounting calculation and the visibility of research and development. *Science in Context, 7*(3), 497-514. doi: 10.1017/ S0269889700001794

Robson, K., & Young, J. (2009). Socio-political studies of financial reporting and standard-setting. In C. S. Chapman, D. J. Cooper & P. Miller (Eds.), *Accounting, organizations, & institutions: essays in honour of Anthony Hopwood* (pp. 341-366). Oxford: Oxford University Press.

Ronen, J. (2008). To fair value or not to fair value: a broader perspective. *Abacus, 44*(2), 181-208.

Rutherford, B. A. (2003). The social construction of financial statement elements under private finance initiative schemes. *Accounting, Auditing & Accountability Journal, 16*(3), 372-396.

Samuelsson, E. F. (2002). *Accountability and family business contexts: an interpretive approach to accounting and control practices.* Jönköping: Jönköping International Business School. (JIBS Dissertation Series No. 014)

Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students* (Vol. 4). Harlow: Prentice Hall.

Schipper, K. (2005). The introduction of international accounting standards in europe: implications for international convergence. *European Accounting Review, 14*(1), 101-126.

Seetharaman, A., Balachandran, M., & Saravanan, A. S. (2004). Accounting treatment of goodwill: yesterday, today and tomorrow: problems and prospects in the international perspective. *Journal of Intellectual Capital, 5*(1), 131-152.

Seth, A. (1990). Sources of value creation in acquisitions: an empirical investigation. *Strategic Management Journal, 11*(6), 431-446. Doi: 10.2307/2486375

Soderstrom, N. S., & Sun, K. J. (2007). IFRS adoption and accounting quality: a review. *European Accounting Review, 16*(4), 675-702.

Street, D. L., & Gray, S. J. (2002). Factors influencing the extent of corporate compliance with international accounting standards: summary of a research monograph. *Journal of International Accounting, Auditing and Taxation, 11*(1), 51-76. Doi: 10.1016/S1061-9518(02)00054-X

Taipaleenmäki, J., & Ikäheimo, S. (2011). On the convergence of management accounting and financial accounting: the role of information technology in accounting change. Retrieved from http://ssrn.com/abstract=1963638.

Thorell, P., & Whittington, G. (1994). The harmonizing of accounting within the EU. *European Accounting Review, 3*(2), 215-239.

Tinker, T. (1991). The accountant as partisan. *Accounting, Organizations and Society, 16*(3), 297-310.

Tinker, T., & Ghicas, D. (1993). Dishonored contracts: accounting and the expropriation of employee pension wealth. *Accounting, Organizations and Society, 18*(4), 361-380. Doi: 10.1016/0361-3682(93)90021-W

Thompson, G. (1987). Inflation accounting in a theory of calculation. *Accounting, Organizations and Society, 12*(5), 523-543. Doi: 10.1016/0361-3682(87)90034-1

Van Tendeloo, B., & Vanstraelen, A. (2005). Earnings management under German GAAP versus IFRS. *European Accounting Review, 14*(1), 155-180.

Vollmer, H (2007). How to do more with numbers: elementary stakes, framing, keying, and the three-dimensional character of numerical signs. *Accounting, Organizations and Society, 32*(6), 577-600.

Vollmer, H., Mennicken, A., & Preda, A. (2009). Tracking the numbers: across accounting and finance, organizations and markets. *Accounting, Organizations and Society, 34*(5), 619-637. Doi: 10.1016/j.aos.2008.06.007

Weißenberger, 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, 22*(3), 160-180. Doi: 10.1016/j.mar.2011.03.003.

Weißenberger, B. E., Stahl, A. B., & Vorstius, S. (2004). Changing from German GAAP to IFRS or US GAAP: a survey of German companies. *Accounting in Europe, 1*, 169-189.

Whittington, G. (2008). Fair value and the IASB/FASB conceptual framework project: an alternative view. *Abacus, 44*(2), 139-168.

Wulf, I. (2009). Bilanzierung des Goodwill nach IFRS 3 und IAS 36. *Zeitschrift für internationale und kapitalmarktorientierte Rechnungslegung, 12*, 729-736.

Yin, R. K. (2003). *Case study research: design and methods* (3 ed.). Thousand Oaks: Sage Publications.

Young, J. J. (2006). Making up users. *Accounting, Organizations and Society, 31*(6), 579-600.

Zambon, S. (2011). The managerialisation of financial reporting: an introduction to a destabilising accounting change. *Financial Reporting, special issue*, 5-16.

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