COPENHAGEN BUSINESS SCHOOL

The contribution of sociologically informed accounting research to our understanding of the accounting craft and its change dynamics

Amir Mohamed-Fathi Mohamed El-Alem

February 26, 2016

MSc. (cand.merc.) in Accounting, Strategy and Control (ASC)
Master thesis 2016
Supervised by Prof. Peter Skærbæk
Number of pages: 78

Contents

Chapter 1: Introduction

1.1 The traditional view of accounting

The closing decades of the last century have witnessed the end of the hegemony of the *traditional* (textbook) explanations on the nature of accounting practice, where "for conventional researchers, management accounting was seen as static and technical, functional to organizational effectiveness" (Wickramasinghe & Alawattage, 2007, p. 412). Since the 1980s, new perspectives emphasizing the *social aspects* of accounting have emerged (Justesen & Mouritsen, 2011). According to these perspectives, accounting is not a neutral, technical tool that placidly awaits for its users to pick it up or lay it aside. Rather, these perspectives see accounting as being actively embroiled in the social interactions, power struggles, and politics that shape organizational reality: "Accounting is implicated in the objectification of phenomena, of making appear real those things that would otherwise reside in the realm of the abstract" (Hopwood, 1990, p. 9); no one has ever actually seen 'profits' or touched 'costs'. In other words, accounting technologies are not neutral, technical bystanders but are active actors in unfolding organizational events. Moreover, accountants are not social solitaries whose duties/interactions/thoughts etc. are confined to ledger recordings or the preparation of the companies' financial statements: "... accounting has to be seen as a dynamic and social institution, subject to changes under historical circumstances, and *socially constructed* even though it seems to be technical" (Wickramasinghe & Alawattage, 2007, pp. 412, italics mine). In short, there is no such thing as an 'accounting silo'. It might therefore be said that sociologically-informed perspectives were intended as a *cure* for myopic interpretations of accounting.

In order to give some context to this discussion of sociologically informed accounting research, a brief look into management accounting's history might prove helpful.

Management accounting, a very short history

The *nearsightedness* of the traditional accounting perspective can be ascribed to the historical origins of management accounting. Management accounting, as we know it today, can be traced back to the opening decades of the 19^{th} century where it was born out of industrialists' concerns over the costs' of production units (Zimmerman, 2005). This preoccupation with 'unit costs' continued, without losing its steam, into the 20^{th} century (Wanderley & Cullen, 2011). Nevertheless, despite management accounting's obsessiveness with 'unit costs', managers, even in those early days, knew, instinctively, that the value of *contextless* accounting information is limited: "... the use of measures such as return on investment by managers in DuPont [at the turn of the 20th century] was always moderated by considerations of wider economic factors such as the business cycle, rather than being followed blindly" (Chapman, 1997, p. 191).

The second half of the 20thcentury witnesses a relaxation of this preoccupation with unit costs. Management accounting's attention was now divided between:

- Calculating costs;
- Supporting managers' decision-making process (Wanderley & Cullen, 2011); and
- Compliance with the demands of regulatory agencies and authorities: "In the period from 1925 to 1975, management accounting was heavily influenced by external considerations. Income taxes and financial accounting requirements (e.g., those of the Financial Accounting Standards Board) were the major factors affecting management accounting" (Zimmerman, 2005, p. 16).

However, in spite of these developments, until fairly recently, 'cost control' remained management accounting's paramount concern: "... management accounting practices in the 1970s and 1980s were focused exclusively on financial control systems, with particular emphasis on budgeting, cost control and product costing techniques" (Wanderley & Cullen, 2011, p. 22). In consequence, the traditional accounting tools that have been handed down to us are predicated on assumptions that:

- Responsibility *needs to be* and *can be* assigned: "Responsibility, reinforced by incentives, is an essential feature of the traditional management accounting model. It emphasis the role of business units, departments, sections and groups, as well individuals' responsibility for business activities" (Burns & Baldvinsdottir, 2007, p. 118);
- Individuals'/groups' performance is measurable; and
- That those individuals are *rational* seekers of gain (economic or otherwise): "Accounting is treated as the quintessence of rational calculation. Those in control of the information use it rationally to make resource allocation decisions: those subject to its surveillance make rational decisions about their action based on their awareness of that surveillance" (Puxty, 1993, p. 16).

Taking this past history into consideration, it is understandable that the conventional view of accounting sees accounting as a purely technical and inward-looking discipline reflecting only the concerns of the organization and its managers: “It has been designed, and it is usually interpreted, in a way that is specifically geared towards evaluating only the technical efficiency of the process of producing something, rather that evaluating its totally” (Puxty, 1993, p. 13). In sum, the traditional perspective leaves little room for the *human* aspects of accounting and conveys a picture of accountants and accounting users as emotionless automatons.

Therefore, as a next step, I discuss why this *dehumanized* view of the accounting graft is problematic and why it should be left behind.

1.2 The traditional view of accounting, why its problematic

Scholars have claimed (Wickramasinghe & Alawattage, 2007; Modell, 2014) that the search for *alternative* explanations of what accounting *is* and *does* was sparked by Johnson and Kaplan’s (1987) claims of ‘management accounting’ having lost its relevancy in today’s globalized and deregulated markets. One of the arguments put forth was that accounting systems/tools that focus on ‘cost control’ are *no longer suitable* in a world that suffers from a production surfeit, where the ruling competitive parameters are quality and service celerity rather than price:

> “Standard cost systems and variance analyses have been criticised for promoting the ‘status quo’, i.e. standards provide incentives to accept a given level of production defects in the production system rather than to find the cause of the defects. Standards do not stimulate individuals to exceed standards” (Hansen & Mouritsen, 2007, p. 18).

The *outdatedness* of management accounting practices was ascribed to atavistic, firmly lodged financial accounting conventions that involve a lot of rear-view-mirror gazing in a time where “forecasts can be more important than the comparisons of actuals against budgets” (Burns & Baldvinsdottir, 2007, p. 124). However, some of the blame also landed on the doorsteps of the accounting researchers who were criticized “for continuing to provide overly simplified and abstract portrayals of costing systems far removed from actual costing practices” (Modell, 2014, p. 84). Following such critique, scholars came to the realization that there existed a *gap* between the kind of normative, *socially sterile* accounting practices preached between the folds of the university textbooks and actual, real-life, accounting practices. This thesis is an attempt to elucidate the contributions of two influential strands of sociologically-informed accounting research towards filling this gap.

<u>The traditional perspective addresses the concerns of a relatively small audience</u>

The traditional perspective's inability to fully explain actual, real-life accounting practices is, partly, due to it being written, primarily, from the viewpoint of the organization and its managers, which "detracts from [other] concerns with the often unpredictable consequences of the use of accounting information for a broader range of interests in and around organisations" (Modell, 2014, p. 85).

This may explain why when classic accounting literature, from the 1970s, discusses the harmful effects of 'slack budgets' the main concern is that "the organization might not be able to lead the manager towards making the effort that would be good for the organization" (Puxty, 1993, p. 10). Conversely, sociologically-informed accounting research is able to offer a more *nuanced* understanding of accounting because it has a much more *expansive* view of the actors *involved in* and *influenced by* accounting:

> "Much of this research pays explicit attention to how management accounting practices influence the interests of a broader range of constituencies and are effectively implicated in entrenching the power and influence of some actors at the expense of others" (Modell, 2014, p. 86).

<u>The traditional perspective depicts accounting devices as problem-free machines</u>

According to this traditional outlook, accounting devices *themselves* are unproblematic, technical devices: "It is believed that, once the [accounting system] has been set, it works independently, being detached from human consciousness and organizational imperatives" (Wickramasinghe & Alawattage, 2007, p. 414). Thus, to successfully introduce a new accounting system (or revamp an old one) we just need to overcome the *shortcomings* of non-accountants —accountants themselves are depicted as impartial and objective assessors of financial performance— blocking the path of proper implementation. In other words, the traditional perspective segregates the accounting machines from their human creators/users. The traditional perspective, therefore, limits its concern to the *technical* aspects of accounting change. This may explain accounting researchers' motivation to develop perspectives that offer a more comprehensive picture of accounting phenomena: "Accounting ... [in the traditional perspective] is too rigid a discipline, protected and buffered from the pressures of the world by professional conservatism and an inadequate knowledge basis" (Hopwood, 1990, p. 8).

Having reached this point in the discussion, I feel that I need to commit myself and hazard the claim that the traditional perspective's view of the accounting practice is, if not entirely erroneous, then at least, incomplete. For my part, it is enough to conjure up the image of the local grocer conferring with his bookkeeper on how the accounting figures can be adjusted/twisted to conceal as much profit as possible from the tax officers to realize that accounting is anything but a neutral, technical device, it is in fact *inseparable* from the agency and goals of its users: "It has been argued that the mundaneness of management accounting numbers facilitates the embedding of partisan values into daily routines and organisational functioning" (Baxter & Chua, 2003, p. 102). Accordingly, practitioners responsible for designing/implementing/changing companies' accounting systems need analytical perspectives that can reveal accounting's social side. In this thesis, I will attempt to find proofs, from newer literature, corroborating the claim that accounting lacks neutrality.

1.3 Accounting change, its importance in revealing the accounting craft's true nature

Johnson and Kaplan (1987) have criticised management accounting for its lack of inventiveness and for having lost its relevancy to companies, "having become subservient to the needs of external financial reporting" (Wanderley & Cullen, 2011, p. 22). Yet, other scholars maintain that management accounting is in a state of continuous change brought on by the ever evolving business environments and by the advances in information technology: "... both practitioners and researchers are now aware that many of the shifting patterns of organizational and economic life are impinging on accounting practices, the uses of which are made of them and the knowledges in which they are embedded" (Hopwood, 1990, p. 8). Since developments of this kind are not likely to come to a standstill any time soon; understanding how accounting change takes place becomes an absolute necessity. Understanding accounting change becomes even more important when one considers that the *use* and *production* of accounting information is no longer the sole responsibility of accountants:

> "...a great deal of management accounting is being undertaken by the business managers rather than by the accountants per se. So, for instance, business managers are devising and managing their own budgets rather than being 'given' the numbers, and 'hit' once a month with the variances" (Burns & Vaivio, 2001, p. 390).

Neither is the role of today's accountant limited to 'counting beans' or 'keeping the books': "...it is not uncommon for management accountants to nowadays be proactively involved in such areas as strategy, information systems implementation and change management ... .” (Burns & Vaivio, 2001, p. 390). Thus, ‘accounting change’, nowadays, has organization-wide implications that are not confined to the accounting and finance departments: “Managers are increasingly commercially aware, and conscious of the ‘bottom-line’ (profitability) implications of local business decisions rather than dismissing such concerns as the remit of accountants” (Burns & Baldvinsdottir, 2007, p. 123). As a result, there is “a growing interest in the challenges involved in managing [accounting] change” (Modell, 2007, p. 335). It is therefore important that organizational members responsible for introducing new accounting devices know how to *handle/manage* accounting change.

My choice of ‘change’ as an overall organizing theme for the thesis has been determined by what I believe accounting to be. Accounting is not as the traditional paradigm would have it an inanimate machine. Accounting is not the abacus or the Excel spreadsheet; it is a social and intellectual expression of how a company’s economic transactions should be recorded. After all, it is humans (e.g. the company’s in-house accountants) that record the transactions and other humans (the external independent auditors and government tax officials) who examine and verify, whether or not, the transactions have been correctly set down. In other words, it is not possible to separate the man from the man-made when it comes to accounting: “... accounting is not an autonomous phenomenon, other social, political and economic factors are now seen as being able to provide bases for accounting change, often playing a significant role in influencing the course of its transformation” (Hopwood, 1990, p. 8). Therefore, I would argue that, a good way towards a better understanding of accounting is to study it while it is being *changed*. More precisely, to examine the troubles, conflicts, and anxieties that, usually, attend the introduction of new accounting ideas on how to capture and represent a company’s economic actions.

Management accounting change is a vast topic. The type of accounting change that I want to inquire into is the one that takes place when new (new to the organization) accounting techniques are introduced into the organization, be it private or public, or when its existing accounting systems are updated or modified. The relative size and type of the establishment/institution that is being analysed may vary (e.g. a private company or a municipality). Nevertheless, the discussion will still centre on organization/micro-level accounting changes that take place within the confines of a clearly demarcated entity.

1.4 Justification for the choice of analytical perspectives

My main purpose is to acquire a better understanding of the nature of accounting change. As the traditional perspective is quite barren when it comes to exploring accounting’s human side, I have had to look elsewhere in my search for explanations of accounting change that are not, entirely, technical. In other words, I needed analytical perspectives where accounting users/practitioners were not regarded as ‘emotionless effigies’, perspectives where the organizations’ “economic objectives and [their] consequences ... are connected to individual bodily habitudes—such activities are accompanied by smiles, grumpiness, deftness, busyness and messiness, for instance” (Baxter & Chua, 2003, p. 107). Therefore, I decided that perspectives informed by the discipline of sociology would be more suitable for the task.

Inspired by the Baxter and Chua (2003), this thesis is an attempt to update what the sociologically-informed perspectives of ‘institutional theory’ and ‘actor-network theory’ have to say regarding the question of accounting change. Both perspectives were examined in the Baxter and Chua (2003) review. Nevertheless, in defence of my choice I put forth the following arguments:

- Chronologically, the two perspectives are among the more recent sociologically-informed perspectives to make their appearance on the accounting research scene, institutional theory in the 1980s and actor-network theory in the 1990s. Consequently, their respective frameworks are, more likely, to hold more advanced and sophisticated conceptualizations of accounting’s social aspects;
- In reviewing the institutional perspective Baxter and Chua (2003) only allude to accounting research that has been influenced by the strand of institutional theory known as New Institutional Sociology (NIS). This limitation can be explained by the review’s timeline where the newest articles are from 1999. Thus, the reviewed articles predate the publication of Burns and Scapens (2000) influential framework on accounting change which is based on that other strand of institutional theory known as Old Institutional Economics (OIE). Therefore, an appreciation of the institutional perspective contribution to our understanding of accounting change would be *incomplete* without the inclusion of some of the more recent accounting research that has been influenced by both these strands.
- As for my choice of actor-network theory (ANT), I have found that not only in the Baxter and Chua (2003) review but, also, in later reviews of ANT-inspired accounting literature (O'Connell, Ciccotosto, & De Lange, 2009; Justesen & Mouritsen, 2011; Barter & Bebbington, 2013) that reviewers devote their attention, predominantly (if not entirely), to accounting research informed by Bruno Latour’s version of ANT. This is in spite of scholars (Justesen & Mouritsen, 2011; Lukka &

Vinnari, 2014) admitting to the existence of an expanding circle of accounting researchers that are, primarily, inspired by another co-founder of ANT, Michel Callon. Consequently, I find that an examination of what Callon-inspired accounting research has to say concerning accounting change would not be amiss.

The above discussion, have guided me to formulate my research question as follows:

How has socially informed accounting research influenced our understanding of the accounting craft and its change dynamics?

In attempting to answer the research question I will probe reviewed cases for answers to the following questions:

- ***What* drives accounting change;**
- ***Who* is responsible for it; and**
- ***What* its outcomes are.**

1.5 Methodology

The methodology has been informed by thesis's main goal which is to expound on institutional theory and ANT's interpretations of accounting change and to point to some of the lessons that can be gleaned from the case companies' experiences of accounting change. My intention is that this assemblage of experiences might inspire accounting practitioners to devise and introduce 'accounting change initiatives' that meet as little resistance as possible. Thus, my purpose is not to assess the pros and cons of each perspective. Rather, it is to stir the accounting practitioner's interest in these theoretical lenses and how they (combined) might help him obtain a more well-rounded understanding of the problems that, usually, attend accounting change programs.

The data for the thesis comes from journal articles which were the result of extensive literature search in the various databases, in particular, those of Business Source Complete, Emerald Insight, Science direct and Google Scholar. To ferret out the needed articles, I have used a variety of generic, synonymous/near-synonymous key-search-terms/words that authors are likely to have used in the course of describing episodes of accounting change, whatever the theoretical underpinning of their article might be. I would use words such as introduction, introducing, change, accounting, new, implementation, implementing, changing, developments, developing etc. in a variety of combinations and arrangements along with the theoretical perspective ‘name tag’.

Needless to say, the results that this search yielded were substantial. As a result, a complete review of any one of the two perspectives would therefore be unfeasible. Consequently, the articles in this thesis are only representative and not comprehensive. Nevertheless, I have chosen cases whose events take place in diverse contextual settings. I wanted to ascertain that the perspectives’ interpretations of accounting change had universal relevancy and were not culturally bounded.

My selection of the articles has been guided by the following simple and pragmatic criteria:

- The article must come from a recognized accounting journal;
- It should be clearly stated in the text that the article has been informed by the discussed theoretical perspectives. In other words, a passing tangential reference is not enough to include the article;
- Accounting change should be the central topic or, at the very least, a key point of discussion in the article;
- The selected text has to be as recent as possible. That being said, the text’s publishing date should not be allowed to detract from its relevancy to the topic of accounting change. However, where publication date is concerned, as a bare minimum, the selected text must have a post-2000 date, as the Baxter and Chua (2003) review, which I try to follow-up on, examines alternative accounting literature up to the year 1999.
- Due to linguistic limitations the text must be in English.

My choice alighted on twelve cases; the first seven have institutional theory as their theoretical point of reference and the last five use ANT in their interpretation of accounting’s dynamics.

I examine the two analytical perspectives according to the chronological order in which they made their appearance in the accounting literature beginning with institutional theory. The chapters for the two perspectives follow the same layout. I start off with introducing the perspective and its key concepts then I move on to examining the cases and round off with a summation of the theory’s interpretation of accounting change, its drawbacks and what can be learned from it. In the final chapter I contrast the two perspectives’ understanding of accounting change with a chronological predecessor and discuss what might be the next step towards a better understanding of accounting social aspects.

Chapter 2: Institutional theory and accounting change

2.1 Introduction to institutional theory

For institutionalists a company's accounting system is not the outcome of strategic managerial deliberations but is stencilled out using legitimated (i.e. that are widely acknowledged in society), institutional templates: "University, school, hospital or firm accounting system are thus not so much strategically chosen by organizational actors as environmentally imprinted to conform to socialized notions of rational, 'objective', accountable corporate action' (Baxter & Chua, 2006, p. 52). This means that the firm's choice of accounting system is not based on the innate technical qualities of the accounting system itself or the company's need for it but on society's (at times irrational) approbation of a new accounting fads. Expressed differently, the company will adopt the accounting systems that are socially rather than technically desirable: "... management accounting practices, such as budgeting and casemix accounting, are seen as 'rational myths' that confer social legitimacy upon organisational participants and their actions" (Baxter & Chua, 2003, p. 100). The argument is that because internal, functional needs are not the main driving force behind the introduction of the accounting systems, "they end up being 'decoupled' [sidetracked] from operational activities, and hence the connection between [accounting] technique and efficient task accomplishment is loosened" (Baxter & Chua, 2006, p. 52). Therefore, the information produced by *decoupled systems* will, most likely, not become part of management's decision-making processes. Such systems are mainly used as 'accounting décor' designed to ward off external accusations of mismanagement and to keep at pay unwanted external interference (e.g. from the government).

Multiple theories (and sub-theories) comprise institutionalism, spanning numerous scholarly disciplines (Moll, Burns, & Major, 2006, p. 184). However, research into management accounting change "has primarily been inspired by the sociological branch labelled New Institutional Sociology (NIS) and, more recently, by more economics-centred perspectives, especially Old Institutional Economics (OIE)" (Modell, 2007, p. 344). Both NIS and OIE are informed by economics and sociology and are united in their belief in the importance of institutions.

When institutional theory arrived on the accounting research scene in the early 1980s, sociologically-informed accounting studies were few and far between (Modell, 2007). At that time, mainstream accounting research was chiefly influenced by neoclassical economics which "is based on the core economic assumptions of rationality and equilibrium" (Burns &

Scapens, 2000, p. 4). Theoretical frameworks produced by this line of thinking were mainly normative prescriptions of best accounting practices corresponding to desired, static states of economic equilibrium (Modell, 2007). How accounting systems moved (changed) from one equilibrium point to the next was of little concern: “Neo-classical economic theory is more concerned with predicting the rational or ‘optimal’ outcomes, rather than explaining the unfolding processes in moving from one equilibrium state to another” (Burns & Scapens, 2000, p. 4).

What follows is a presentation of the two institutional strands and some illustrative examples from the more recent literature.

<u>Old Institutional Economic (OIE)</u>

There are a considerable number of studies in management accounting change based upon institutional theories. Many of those draw on the old institutional economics (OIE), in particular the framework developed by Burns and Scapens (2000) (Wanderley & Cullen, 2013, p. 302). The Burns and Scapens (2000) framework is an amalgam of different theoretical perspectives that “have been combined to develop a framework for studying the intra-organisational processes of management accounting change” (Ribeiro & Scapens, 2006, p. 98) Originally, OIE dates back to the end of the 19th century and the works of Thorstein Veblen (Moll, Burns, & Major, 2006). The resurgence of the OIE perspective was borne out of opposition to the reigning paradigm of neo-classical economics “that placed emphasis on assumptions pertaining to rationality, optimisation and market-equilibria” (Moll, Burns, & Major, 2006, p. 184). Robert Scapens has been credited with re-introducing OIE thinking into accounting research in the early eighties after a period of time where academicians interest in OIE had dried out in the years between and after the two World Wars (Wickramasinghe & Alawattage, 2007; Moll, Burns, & Major, 2006). Scapens reintroduction of OIE ideas was motivated by his search for an explanation for the discrepancy (gap) between actual accounting practices and traditional, textbook accounting solutions that neoclassical economic theory was unable to explain: “... neoclassical economics can only be a theoretical tool for predicting industry and market-level scenarios, such as costs, prices, sales volume, rather than a tool for explaining the behaviour of managers who use management accounting within an organization” (Wickramasinghe & Alawattage, 2007, p. 427). Instead of using normative frameworks to predict what the accounting practices *should* be, Scapens argued that *actual* practices should be studies, using theory to interpret events, in order to develop theoretical interpretations of these practices (Wickramasinghe & Alawattage, 2007).

OIE has a long standing association with the study of change. OIE is mainly concerned with "how management accounting practices within an [specific] organization *evolve over time* and why they evolve in that way" (Robalo, 2014, pp. 89, italics mine) "rather than merely what [institutional] structures exist at any given point in time" (Moll, Burns, & Major, 2006, p. 184). Therefore, from an OIE perspective, change is not a one-off event or something that takes place at discrete, separable, and easily identifiable intervals; it is a continuous process: "... it is a concern of OIE researchers, not only to analyse the role of prevailing institutions in change processes, but also to study the reproduction or change in institutions over time" (Ribeiro & Scapens, 2006, p. 98).

New Institutional Sociology (NIS)

OIE's main concern is the study of the institutions within *a specific organization* and how they shape its accounting practices. NIS, on the other hand, "predominately focuses on the effects of extra-organizational institutions (social, economic and political) on the accounting practices of organizations more generally" (Burns & Scapens, 2000, p. 5). NIS's main argument is that an organization's choice of accounting system is not the result of internal managerial deliberations put due to the influence of external institutional forces: "... intra-organizational structures and procedures, including accounting, are largely shaped by external factors rather than cost-minimising objectives" (Moll, Burns, & Major, 2006, p. 186). As a result, NIS researchers look outside the firm's boundaries for explanation of its accounting practices: "... the type and nature of PMS [performance measurement system] used by an organisation varies according to the institutional environmental conditions in which the organisation operates" (Munir, Baird, & Perera, 2013, p. 200). It can therefore be said, that, in NIS; environmental institutions mould the company's accounting practices, whereas, in OIE; accounting practices are themselves company-specific, internally-generated institutions.

2.2 Key analytical concepts

Institutions

A typical OIE definition of an institution is "a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people" (Hamilton, 1932, p. 84) (as cited in Burns and Scapens, 2000, pp. 5-6). Thus, institutions are widely accepted behavioural templates that enjoy a certain degree of permanency. Institutions shape the daily actions of organizational members and are, at the same time, sustained and maintained by these very same actions: "[Institutions are] the shared taken-for-granted assumptions which identify categories of human actors and their appropriate activities and relationships” (Siti-Nabiha & Scapens, 2005, p. 46). Institutions are intangible, cognitive abstractions that represent taken-for-granted notions of how one should think and act. Institutions are the tried and tested solutions that have proven, time after time, that they work. Organizational members apply them mechanically without much reflection or afterthought. If institutions become too firmly lodged they can act as barriers to change: “Change which is not aligned with the existing institutions may be resisted and/or translated into practices which are consistent with those institutions” (Siti-Nabiha & Scapens, 2005, p. 47).

According to Burns and Scapens (2000, p. 11, italics in text), “Institutions *always exist prior to* any attempt by the actors to introduce change, and will therefore shape the processes of change”. This is why, OIE researchers exhort us, before embarking on any accounting changes to get to know the organization’s institutional setting.

Rules and Routines

Rules comprise the formal management accounting systems, as they are set out in the procedure manuals; whereas routines are the accounting practices actually in use (Burns & Scapens, 2000, p. 7). According to OIE, an organization’s accounting practices are rules and routines that have the potential to become institutionalized. If these rules and routines prove to offer satisfactory, lasting solutions to the organization’s accounting problems and do not conflict with the organization’s current institutions, then it is possible that they might, with the passage of time and through being repeatedly reproduced, become institutionalized (i.e. become part of the firm’s default accounting practices). However, as Ribeiro and Scapens (2006, p. 99) point out:

> “Not all newly introduced rules and routines (including accounting ones) will become institutionalised. In particular, if new management accounting systems and practices (or indeed any other new systems and practices) challenge the prevailing institutions in the organisation, they may not be reproduced and as a result may fail to become institutionalised as the taken-for-granted basis for actions and interactions”.

In the main, rules and routines (especially accounting ones) are change resilient and their black boxes are unlikely to be reopened (i.e. challenged) if no external instigator of change presents itself (e.g. a merger, a change in the company’s top management, new laws or regulations etc.). However, although exogenous shocks might create the opportunity (atmosphere) for change, powerful, resourceful individuals within the organization must be willing to back up the calls for change if changes are to materialize: "External developments by themselves are not usually sufficient to trigger (nor enact) intra- organisational change; agency is key, normally underpinned by the power 'to get things done'" (Contrafatto & Burns, 2013, p. 355). In the same vein, Parker (2012, p. 63) states that "externally sponsored changes could be instigated but then due to internal normative conditions and attitudes become almost snuffed out, lie dormant and then be rediscovered and reinvigorated by internal change agents". Thus, external contextual developments can create the opportunity for change; however, the agencies of powerful, resourceful individuals are what make it happen.

Legitimacy

According to NIS, firms' accounting systems are "rational myths that confer social legitimacy upon organisational participants and their actions" (Baxter & Chua, 2003, p. 100). Thus, a company's accounting system is maintained or changed based on its ability to live up to society's expectations rather than its technical qualities: "... the main reason underlying organisational change [or lack of it] is gaining [or maintaining] legitimacy rather than improving substantive performance" (Akbar, Pilcher, & Perrin, 2015, p. 8)". According to Ribeiro and Scapens (2006, p. 96), "this search for legitimacy and resources explains why specific organisational forms and procedures are diffused across organisations operating in similar settings". As this organizational homogenization takes hold we find that "organisations that produce similar services or products ... all begin to bear a resemblance to each other in particular aspects" (Akbar, Pilcher, & Perrin, 2015, pp. 10-11).

Isomorphism

According to NIS, companies operating in the same institutional environments will be subjected to the same external institutional pressures, which is why there are marked similarities between their accounting systems/practices/technologies. The mechanism that enables the influences of external institutions to be stamped on companies' accounting systems is referred to as isomorphism. According to DiMaggio and Powell (1983), Institutional isomorphism can be broken down into three categories:

- *Coercive isomorphism*: This category denotes government laws and regulations that compel organizations to adopt specific internal structures and procedures;
- *Mimetic isomorphism*: This category refers to organization's imitating the internal structures and procedures of the more successful organizations;

- *Normative isomorphism*: This category relates to companies yielding to the authoritative advice and recommendations of professional groups (e.g. accounting consultants) about their internal structures and procedures.

Decoupling

According to NIS, organizations' instinctive respond to isomorphic pressures is decoupling. Decoupling means that the institutionally sanctioned structures and procedures are only ceremonially implemented and have little or no purpose other than the appeasement of influential external stakeholders:

> "Formal structures and procedures are adopted in order to acquire legitimacy and guarantee the resources required for the survival of the organisation, but they are detached from the everyday organisational practices so as not to disturb the normal processes of daily operations (Ribeiro & Scapens, 2006, p. 97).

Although the notion of decoupling usually crops up in NIS-informed interpretations of accounting change it is also consistent with OIE's explanation of accounting change. In OIE, not all accounting rules and routines are destined to become institutionalized; some will be abandoned. Abandoned accounting practices will, naturally, have no effect on company's operations and management's decisions. To my mind at least, there is little difference between *an abandoned* and a *decoupled* accounting system save that the later may still have some marginal decorative function whereas the former absence from the scene is absolute.

2.3 Illustrative case studies

The case of Eagle

Case description

This case deals with the forced introduction of a system of value-based management (VBM) to the gas processing company Eagle by its parent company the state owned national oil company (NOC). VBM introduced Eagle to the use of key performance indicators (KPIs). VBM required the managers at Eagle to devise financially-oriented KPIs for their divisions and department.

The introduction of VBM to Eagle was the result of NOC's ongoing search for legitimacy for its business decisions and to keep government interference at bay. NOC's method for securing legitimacy and cultivating the image of the well-managed company was based on the continuous introduction of modern, Western-style management techniques. VBM was supposed to get Eagle's, predominantly, production-oriented management to relinquish their focus on production reliability and safety and start thinking about the financial consequences of their decisions: “Within Eagle, there was a general absence of financial targets, accountants had a very traditional bookkeeping role, and budgets were used in a ceremonial way” (Siti-Nabiha & Scapens, 2005, p. 52). Thus, in the case of Eagle, it was not just a matter of getting its staff acquainted with the technical demands and quirks of VBM but to get them to appreciate and use financial information. From the start, Eagle’s managers were against VBM despite being dissatisfied with their current performance evaluation system. Nevertheless, critique of VBM was never formally voiced and Eagle managers went ahead with implementing VBM in spite of their misgivings.

This widely prevalent production orientation was a firmly established way of thinking and doing at Eagle. It was further reinforced by Eagle’s contextual circumstances; Eagle enjoyed a protected, monopolistic market position. In the event that its government regulated prices failed to cover costs the deficit was made up with additional subsidies from NOC.

The production orientation had permeated all aspects of Eagle’s activities. In its accounting procedures it was most notable in the way it used budgets. Budgets in Eagle were not used as a means for controlling costs but in resource negotiations. Exceeding budget limits was not seen as problem so long as it could be justified. Variance reports were only prepared in the event that there were substantial deviations. Budgets were also not used to assess performance and they were not discussed in management meetings. In general, there was a disregard for accounting information as it was not deemed useful in the decision-making process. Accounting was seen as a formal requirement that should not be allowed to interfere with the production process.

In part, resistance to VBM was caused by management’s inexperience with constructing KPIs linking the performance of their departments and sections with Eagle’s financial results. This form of resistance was what Burns and Scapens (2000, p. 20) referred to as “resistance due to a lack of capability (knowledge and experience) to cope with such change”. Prior to VBM’s introduction, employees were evaluated based on the completion of individually assigned tasks. Also Eagle did not ensure that the infrastructure for the IT-reliant VBM system was in place before its introduction; data collection for the monthly KPIs was done manually.

VBM only managed to introduce new routines into Eagle but the norms and values guiding daily activities remained unchanged. The new VBM KPIs were used in the same manner as the budgets. The financial targets were not considered as binding and were cushioned to allow for unforeseeable events. In addition, managers were dismissive of the idea that KPIs could account for all aspects of their work.

Although VBM failed to instil a sense of financial responsibility in Eagle's managers, they, nevertheless, succeeded in acclimatising them to the use of KPIs and targets. Yet, because of their dissatisfaction with the financially-oriented VBM KPIs Eagle's managers formulated an alternative set of KPIs that they used to evaluate individual performance. These *unsanctioned* KPIs were later incorporated into an officially recognized PMS. These new PMS KPIs were not decoupled from the daily management of Eagle as they did not challenge prevailing institutional logics but were a reaffirmation of operational norms and values, the importance of task completion, reliability and safety. Moreover, PMS targets were not used to penalize poor performance but to identify individual training needs.

From the text, it looks as though NOC thought that the desired change could be brought about through reliance on sheer, coercive (isomorphic) force. As one of NOC's managers boasted: "There is no NIH [not implemented here] syndrome" (Siti-Nabiha & Scapens, 2005, p. 51). Clearly, NOC did not heed the advice offered in Burns and Scapens (2000, p. 13) and try to understand Eagle's institutional environment before introducing VBM: "... managing change in general, and management accounting change in particular, requires a thorough understanding of the current context of the organization, especially its routines and institutions".

The steadfastness of Eagle managers' to their production-oriented mode of thinking was confirmed when the company faced a reduction in the 'through-put fees' (its main source of income) that it receives from NOC. Once again, in typical Eagle fashion, their response was to compensate for the drop in income by spending more money on reliability and safety. They argued that, in the long-run, these additional costs would result in a reduction in shutdown time for maintenance purposes, increasing thereby production and through-put fees.

<u>Findings</u>

- The less compatible the accounting changes are with firm's internal institutional setting the less likely it is that the new system will work, which concurs with Burns and Scapens OIE based framework:

  > "It is likely to be much easier to introduce [accounting] changes which do not challenge existing routines and institutions, i.e. where the change can be accommodated within existing ways of thinking and norms of behaviour. However, change which conflicts with existing routines and institutions is likely to be much more difficult to implement" (Burns & Scapens, 2000, pp. 16-17).

- Forcefully imposing a new accounting technology may amounts to little more than ceremonial change. New accounting rules and routines can emerge as a result but they are only skin deep as the logics governing employees' thoughts and actions remain, largely, intact. Such on-the-surface accounting changes stand little chance in becoming part of the institutional set that guides the behaviours and thoughts of employees.

- Decoupling is not necessarily, as argued by classical NIS, an organization-wide, official response to external isomorphic pressures. In Eagle's case decoupling (resistance to VBM) was the work of Eagle's operation-level managers. Eagle's top management, especially senior finance managers, were very favourably disposed to VBM. Thus, responses to isomorphic pressures differ between the different groupings with the organization.
- Resistance to accounting change need not be necessarily construed as something negative as a certain degree of stability is required to insure that internal operations are not unduly disrupted. In other words, a *totally malleable* organization that offers no resistance to external influences is not necessarily beneficial or desirable.

The case of Sevillana

Case description

This case deals with the introduction of a new accounting and financial information system to the State-owned electricity company, Sevillana. The new system was introduced by its new owner the Endesa Group who acquired Sevillana at the end 1996 shortly before the deregulation of the Spanish electricity sector (SES) in 1997. New laws governing SES meant that it was no longer possible for a single company to be involved in all the activities of the electricity value chain. To circumvent these new regulations Endesa dissolved Sevillana and its other subsidiaries and reorganized them into new business lines. A new accounting and financial information system (SAP R/3) was introduced to support Endesa's new structural rearrangements:

> "The aim of this was to provide a "common language" in all the subsidiaries to speed up decision-making and provide synergies from the Group's investments and the cumulative experience in previous projects with SAP R/3" (Tsamenyi, Cullen, & González González, 2006, p. 418).

Findings

- In line with classical NIS explanations, the accounting changes at Sevillana were set in motion by 'coercive isomorphic pressures' from the Spanish government in the form of a new electricity sector law. Because of this new law's stipulations, Sevillana parent company (the Endesa Group) was forced to change its organizational structure. The *new* organizational restructuring meant that Endesa's accounting and financial information system was no longer suitable and needed reconfiguring. Endesa used its position as head office to compel (coerce) Sevillana (and its other subsidiaries) into adopting the new system. At Sevillana itself it was not felt that accounting changes were called for.

- In order to overcome/reduce opposition to the new system Endesa' took steps to *enfeeble* Sevillana's institutions (the power of the system) by first removing organizational actors who might be able to mobilize sufficient power to resist the new system:

  > "... Endesa immediately replaced the President, the Vice-President, the Chief Executive, the Secretary and 12 of the 17 members of the Administrative Council of Sevillana with people mainly from Endesa. All major decisions from this time were to be made at the Endesa Group's head office" (Tsamenyi, Cullen, & González González, 2006, p. 421).

  Thus, the case recognizes that in order to *displace* the dominant cognitive abstractions (i.e. institutions) you may also need to displace the powerful individuals whose interests lie in perpetuating them.

- Support from powerful/resourceful individuals/groups from within the organization is needed if accounting change initiatives are to succeed. In addition to support of Sevillana new top management the new system was also backed up by Sevillana's SAP technicians. Sevillana was Spain leading company in the use of SAP technologies and the founder of "the first Spanish association of SAP users (AUSAPE)" (Tsamenyi, Cullen, & González González, 2006, p. 422). Endesa used this influential group to exert 'normative isomorphic pressures' on Sevillana's employees to accept the new system. The influence of the SAP technicians was further augmented by top management's *biased* use of its 'power over decision-making' (i.e. its gatekeeping of who does and does not get to participate in the implementation of the new system). Limiting the participation of accounting and finance in the 'implementation committee' to *inexperienced* employees helped insure that the opinions of the very experienced SAP and IT technicians would be the ones that would be heard and that other voices/opinions would be muffled. This, in turn, enabled SAP technicians to exert 'power over meanings' by focusing on communicating the (positive) technical aspects of the SAP system to management.

- Although influential, Sevillana's accounting changes were not driven, exclusively, by external institutional pressures. The new system's features and its setup were, also, Endesa's response to the 'soon to arrive' competition that a liberated electricity market was expected to bring. The centralization of the accounting and financial information system was meant to reduce costs and "to facilitate the integration and homogenization of the group's operations and decision-making" (Tsamenyi, Cullen, & González González, 2006, p. 424)

<u>The case of PSP</u>

<u>Case description</u>

At the time when this study took place (2001) it was a widely held belief in the circles of the Malaysian government that public sector management is *inefficient* and that the remedy was to introduce management techniques from the private sector. This paper examines how generalized calls for greater efficiency in the public sector were translated into accounting changes in a specific public sector organization. Specifically, the case deals with the introduction of a new budgeting system to the public utility company PSP (the name is fictitious).

As a public organization, PSP was subjected to a variety of contradictory external institutional pressures. PSP was expected to curb its costs and demonstrate that it was being run in a financially responsible manner without slackening the standards of its services. When the new budgeting system was introduced (1994-1996) PSP was in the midst of a corporatisation process (1992-2001) whose purpose was to wean PSP off government funding; further emphasise the use of financial, profit-oriented accounting techniques; and make its customers its primary source of income.

The new budgeting system's setup required that the budgets be centrally prepared by the accountants in at HQ in a top-down manner. In the new budgeting system operations managers were to be held accountable for deviations from budgeted amounts. To facilitate the introduction of the new budgeting system accountants were hired, for the first time, at the level of the PSP's State offices. The new State accountants were to report budget variances to State office managers and to the accountants at HQ.

Because operational managers were not involved in budget preparations they did not commit themselves to keeping their spending within its limits. The problem was compounded by the accountants' limited knowledge of operational activities resulting in insufficient assessments of operations' financial needs. From the perspective of the operational managers, the budgets were irrelevant to the management of their operational activities. Consequently, they did not use them to control costs but only as means to petition HQ for additional funds.

A main source of contention between State accountants and operations managers was that, according to the new budgeting system, overtime costs needed to be approved by State accountants. Operations managers relied on overtime costs to achieve their operational targets and needed, sometimes, to make swift decisions. State accountants, on the other hand, were more concerned with staying within the limits of the HQ approved budgets.

Involving the State accountants with the approvals of additional spending was intended to elevate accountants' status at the State offices from mere bookkeepers (bean counters) to financial advisors to the State offices. However, this intention was not communicated to the State offices who saw the creation of the position of State accountant as an attempt from HQ's accountants to extend their influence to the State offices. In reality, the accountants continued to play the role of traditional administrative clerks.

In the old budgeting system, budgets "were prepared internally, in a bottom–up manner, within authorised spending limits" (Nor-Aziah & Scapens, 2007, p. 222). In the new system, both the setting of spending limits and the allocation of the funds became the responsibility of the accountants at HQ. Understandably, the operations managers resented being deprived of the ability to allocate their allotted financial resources as they saw fit. In their view, this showed a lack of trust in their work abilities and professional judgement. Operations managers were also conscious that if they let their guard down with the State accountants they might find themselves in a position where they were personally committed to the top-imposed, inadequate budgets. Another sign of the mistrust between the accountants and operations managers was that centrally allocated budgets were handed over to the operations managers piecemeal. The State accountants saw the operations managers as government employees intent on achieving their operational targets paying little attention to the financial ramifications of their actions.

In the end, the new budgeting system failed "to instil a greater awareness of costs within operations" (Nor-Aziah & Scapens, 2007, p. 232) and the practice of sending regular variance reports to PSP's HQ was abandoned in under two years.

In the case of PSP the *initial* drive/motivation for introducing the accounting changes came from beyond company boundaries. When the new budgeting system was introduced the idea that public management meant inefficient management was an idea that enjoyed wide circulation in PSP's external socio-political environment. As a government owned utility company many external stakeholders (e.g. private consumers, commercial consumers, government agencies, regulatory bodies etc.) would have had an interest in the company being efficiently managed. However, as PSP was a state-owned enterprise it is fairly safe to assume that the main external driving force behind the accounting changes was the coercive isomorphic force of the government's privatisation program and its financially-oriented reforms.

The new budgeting system was part of a corporatisation process aimed at increasing the use of accounting techniques in the management of PSP. However, PSP was, essentially, still a government-owned company and was not able to fully abandon its social and communal obligations of providing 'good service levels' in favor of a single-minded pursuit of economic profits. The introduction of the new budgeting system and the way it was set-up (i.e. its top-down method where the operations managers at the State offices were excluded from the process) created an institutional clash inside PSP between the operations managers on the one hand and the accountants at the State offices and PSP's HQ on the other. The new budgeting system failed because HQ's accountants took no steps to incorporate the prevailing norms, values and understandings at the State offices into the new system. The accountants proceeded with implementing the new system without first examining or considering the *existing* institutions at the State offices. The new budgeting system encountered resistance because it challenged the operations managers "settled ways of thinking and doing" (Ribeiro & Scapens, 2006, s. 98) where the taken-for-granted assumption is that operational targets have priority and that issues of cost should not be allowed to stand in the way of achieving them.

PSP's new budgeting system was not technically new. However, for the State offices it was "quite revolutionary involving radical change to existing routines and fundamentally challenging the prevailing institutions" (Burns & Scapens, 2000, p. 13). HQ did not take the necessary steps to prepare the State offices managers for the *revolutionary* institutional change that was needed for the new budgets to succeed. Employees at the State offices who were accustomed to think only in terms of "volume per hour and service performance" (Nor-Aziah & Scapens, 2007, p. 225) were now asked to shift their focus to the achievement of financially oriented targets (e.g. keeping spending within budget limits). Thus, it can be said that resistance to the new budgeting system was mainly "due to ... [operations managers'] 'mental allegiance' to established ways of thinking and doing, embodied in existing routines and institutions" (Burns & Scapens, 2000, p. 17). Furthermore, the new budgeting system was not helped along by the fact that the State accountants (HQ's agents of change at the State offices level) were new graduates who lacked "commercial experience, operations exposure and professional training" (Nor-Aziah & Scapens, 2007, p. 228) and whose authority and legitimacy was constantly being questioned:

> "The gaps in seniority, work experience, age and educational background between the two professional groups [the State accountants and State office managers] posed real difficulties in building a common understanding of the need to control operational costs" (Nor-Aziah & Scapens, 2007, p. 232).

Importantly, PSP's case demonstrates that the decoupling of the new budgeting system was not a reflexive, official response from PSP designed to protect its internal technical operations from external institutional pressures. PSP's top management was convinced that greater financial efficiency was needed; the corporatisation process meant that government funding was drying out and, in the future, customers would become PSP's *main* source of income. The sidelining of the new budgeting system was, primarily, the outcome of a dialectical struggle between the two opposing institutional logics of the operations managers and the State accountants.

Findings

The case of PSP demonstrates that:

- Institutional pressures are not a *unidirectional mass force*. Especially, government owned/managed entities are likely to be subjected to *conflicting* institutional pressures from the external environment (e.g. public hospitals and schools are required to deliver high quality service and curb their costs). These conflicts, at times, are re-enacted inside the organization between groups with different institutional affiliations.
- Even if the accounting changes were, originally, instigated by external institutional forces this does not mean no practical managerial considerations of how to improve company performance/financial efficiency were factored into their choice of accounting technology/technique/system. In other words, the accounting systems of companies working in highly institutionalized environments are determined by mixture of institutional pressures and instrumental considerations.
- Resistance to accounting change will be most pronounced in the groups whose institutional logics are being undermined by the norms and values embedded in the new accounting systems.
- Decoupling need not be a kneejerk reaction to external institutional pressures as it its argued in classical NIS research, nor does it necessarily have to be deliberate. In the case of PSP, decoupling was the result of an unanticipated struggle between two internal organizational groups with incompatible institutional logics and decoupling was

the solution that deflated the tensions and enabled both parties to carry on with their work without disrupting internal company processes.

<u>The case of Omega</u>

<u>Case description</u>

This case deals with the introduction of a new management accounting system (MAS) to Omega by its parent company CC a UK privately owned chemicals processor (all names are fictitious). CC acquired Omega in 1995.

CC uses a simple MAS that focuses on computing the contribution margins of its various products and processes, contribution margins are calculated as sales minus the costs of materials. At CC, thinking in terms of contribution margins "is part of the employees' stock of knowledge" (Yazdifar, Zaman, Tsamenyi, & Askarany, 2008, p. 412). CC is a company whose employees enjoy a high level of 'accounting awareness' and the production of accounting information is not only done by its accountants: "For example, information on costs and internal management reports are produced by personnel from the Operations Department or the Production Department" (Yazdifar, Zaman, Tsamenyi, & Askarany, 2008, p. 412).

Before being acquired by CC, Omega used the accounting systems of its ex-parent company WW. The system only suited the needs of WW and the data it produced was only reported to WW's management. The accounting system's data was not used in managing Omega. Instead, decision-making relied on the experience and judgement of a few key individuals. This set up made it possible for some individuals to withhold information in order to further their own interests. Omega's accounting system was disconnected from the decision-making processes and there was a lack of performance accountability and measurement culture. In general, Omega's people were dissatisfied with their accounting systems and were ready for change: "The WW rules and systems were not institutionalised in Omega, rather, there was a fundamental questioning of the group systems and practices" (Yazdifar, Zaman, Tsamenyi, & Askarany, 2008, p. 417).

CC had determined beforehand that their systems were going to be implemented in Omega whatever their examination and evaluation of Omega's systems revealed. However, before introducing any accounting changes CC embarked on a thorough examination of Omega's institutional setting in order to understand the *technical* and *institutional* differences between the two companies' systems. Nevertheless, CC made it clear that dissent would not be tolerated. To force the changes through CC resorted to conventional stick and carrot tactics sacking recalcitrant individuals that resisted change and investing in improving the physical working environment for the remaining employees. CC's task of introducing new accounting rules and routines was made easier by the fact that Omega did not have any firmly lodged, widely-accepted accounting practices that needed to be *deinstitutionalized*: "The major weakness of Omega was the absence of a measurement culture and performance accountability" (Yazdifar, Zaman, Tsamenyi, & Askarany, 2008, p. 417).

Instead of focusing on the technical aspects of their systems, CC concentrated its efforts changing the norms, values, and taken-for-granted assumptions connected with Omega's old, dysfunctional accounting regime "so that when the new rules and systems were introduced the existing values and institutions at micro (subsidiary)-level were already changing in a manner that was compatible with the underlying assumptions of CC ways and accountability" (Yazdifar, Zaman, Tsamenyi, & Askarany, 2008, p. 420). In effect, what CC did was that it first sold the idea that a new accounting system was needed and then introduced it instead of forcing it through and then trying to convince Omega's employees of the rationality and legitimacy.

<u>Findings</u>

- The case is an affirmation that a company's formal accounting structures and arrangements are a product of its institutional environment. Omega's dysfunctional accounting system, under its former owner, persisted despite not having any discernible function apart from acquiescence to the institutional demands of its former parent company.
- Omega had no firmly held views, norms, routines, taken-for-granted assumptions etc. about how accounting practices should be carried out. This *institutional vacuum* may explain why its new owner CC encountered little resistance when it introduced its accounting system. However, CC success with implementing the new system was put down to:
    - CC carefully examining Omega's institutional context before making any decisions on how the accounting changes should be introduced;
    - CC devoting its attention to implanting their norms and values of how the accounting practices should be carried out before turning to the technical side (i.e. formal rules) of the new system; and
    - CC backing this up with firm, coercive pressures derived from its position as parent company to insure that the changes were implemented as desired.

- Although the *technical* accounting changes were swiftly dealt with, implanting new accounting-related institutions was a much more lengthy process: "CC was able to implement its systems within about 9 months and the revolutionary institutional (cultural) change was accomplished within about 3 years" (Yazdifar, Zaman, Tsamenyi, & Askarany, 2008, p. 423).

The case of TexCo

Case description

This case takes place at a manufacturer of high-end textiles in Egypt given the pseudo name TexCo. TexCo's quality products are distributed through its own chain of stores in addition to a network of independent distributors. TexCo was a production-oriented company where the quality of its products was what mattered most. Decision-making relied on the former CEO's (owner's) personal experience and accounting information played no part in management of the company's operations. TexCo sold its products on a consignment basis and had substantial stocks in its own outlets and at the stores of the independent distributors. Keeping track of these stocks and their sales figures was the responsibility of the accountants of the outlets' department.

TexCo was having difficulty controlling its dispersed stock and was incurring sizable losses to its value. TexCo's accounting system was incapable of determining the stock deficiencies actual causes (e.g. theft, damage, bookkeeping mistakes etc.) and the deficits therefore usually recorded as wastage. The system was also unable to detect invoicing mistakes made by the outlets' bookkeepers. In response to these problems, the new CEO decided to install an extranet linking TexCo's factory to the distributors' outlets. TexCo's case explores how the new extranet has affected the work of the accountants at the outlets' department.

Findings

- *The use of information technologies can facilitate accounting changes:* Before the extranet was introduced into TexCo production planning relied on the personal experience of the former CEO. The new extranet's reporting facilities produced a wealth of timely and detailed information on sales and the performance of the various outlets. Being thoroughly informed and updated on sales figures and stock movements the outlets' department accountants became involved in production planning decisions and in giving feedback to the production department. Previously, the duties of the outlets department were concentrated on cash collection and stock monitoring.

- *Some form of external/internal jolt/shock is needed to set the accounting change process in motion:* In the case of TexCo the external shock/jolt was the change in the company's stewardship (the new CEO). The new CEO lacked the experience of his predecessor and needed a more efficient accounting information system that could support his decision-making processes.
- *Accounting changes may not be resisted even if the norm and values embedded in the new systems conflict with the taken-for-granted assumptions of how things should be done:* The accountants at the outlets' department made no overt resistance to the new system despite their anxiety about the challenges that the new system would bring. Fear of dismissal in a job market characterized by widespread unemployment, an excess of qualified accountants, and an absence of a social security net meant that the operations' department accountants had little choice but to submit to the changes. Thus, 'institutional incongruence' is, sometimes, not enough to explain resistance to accounting changes, the external environment must also be considered.
- *Even revolutionary accounting changes can be informed by current accounting rules and routines:* TexCo's system was a tailor made system that replicated the old Excel reports in addition to new reports that the operations' department accountants already knew they wanted but had no time to prepare.
- *Accounting institutionalization is not only the result of ongoing repetitions:* TexCo's case tells us that there might be other factors involved in the institutionalization of accounting practices such as the system's simplicity and employees' perception of its pertinence to the resolution of company problems.

The case of Moli

Case description

This case deals with accounting change at a government-owned telecommunication company that was, prior to its privatisation, guided by a culture that emphasized engineering objectives such as the levels of telephone connectivity, rather than levels of costs. The case is an examination of what takes place when two contradictory institutional logics collide, each with their own understandings of what constitutes efficiency and effectiveness. Moli's employees' thoughts and actions were to be guided by a new interpretive scheme based on accounting and economics that would supplant the old engineering-oriented taken-for-granted ways of thinking and doing.

Findings

- *Coercive isomorphic forces can originate from beyond country boarders*: Accounting changes at Moli can be traced back to coercive pressures by the World Bank and the Asian Development Bank on the government. The two international financial institutions made government receipt of future financial assistance conditional upon the introduction of private sector accounting techniques. Thus, coercive pressures for accounting change are not limited to the passing of national laws and legislations but can also stem from international regulatory bodies.
- *Challenges to the reigning institutional logics are unlikely to come from within company boundaries*: The case of Moli offers further corroboration to the notion that prevailing institutions are unlikely to be questioned "in the absence of 'external' changes" (Burns & Scapens, 2000, p. 10). New leadership from outside Moli's rank and file with financial and commercial experience was needed to create the opportunity for change. The new management started to recruit like-minded accountants from the private sector. The new CEO, department heads and accountants were guided by an alternative set of norms and values and started to question Moli's calcified engineering-orientation and public service norms.
- *Revolutionary accounting changes may require the transplantation of resourceful/powerful individuals whose intuitional logics are congruent with the norms and values embedded in the new accounting technologies and who enjoy the support of resourceful/powerful external institutional constituents:* In the case of Moli, there was no talk of any *endogenously* kick-started accounting change process. An external institutional blood transfusion in the form of a new leadership and a steady stream of private-sector accounting recruits together with a widespread, general discourse that problematized 'public management' as *wasteful* management was essential for insuring that new accounting techniques were take-up by Moli's non-financially-oriented employees.
- *External pressures from the external environment might create the opportunity for change but the collaboration of 'embedded institutional entrepreneurs' (i.*e. *internal change agents) is a prerequisite for the dissemination of new accounting rules and routines.*

The Case of WEPB

Case description

This case deals with the accounting changes that took place at the Waitemata Electric Power Board (WEPB) an electricity entity in Auckland, New Zealand. WEPB was transformed from a State-sponsored consumer cooperative to a private sector company. The case discusses the changes to WEPB's accounting practices and reporting that resulted from the State using its coercive powers to introduce the institutional logic of the corporate form into the WEPB co-operative. WEPB's case is one where accounting change was driven by changes in the government's political philosophy.

WEPB's governing board was elected every three years by the consumers in its franchise area. WEPB was involved in two of four activities of the New Zealand electricity industry: "distribution (the transfer of electricity from grid exit points to consumers by means of a lines network); and retail (the wholesale purchase of electricity and its sale to consumers)" (Hooks & Stewart, p. 88). WEPB and the other electricity supply authorities (ESAs), collectively, lobbied the government for accounting practices that would enable them to fend off unwanted interference from the State Auditor and the Ministry of Electricity. As it was a cooperative, WEPB was guided by an institutional logic that emphasized community needs over the commercial imperatives of profits and gains. WEPB's fulfilment of its communal obligations took the form of the provision of reliable and affordable electricity to private households and jobs that offered employees a good working environment and good wages. Tariffs were calculated ex post on a cost-plus basis after covering "bulk electricity cost, labour and other production factors" (Hooks & Stewart, p. 91). Any upward hikes in the prices of electricity were shouldered by the customers and were, largely, due to increases in the prices of government produced bulk electricity or increases in the interest rates on government loans. Government loans were WEPB's chief source of finance for its capital investments and government's approval was needed before the loans could be raised. WEPB's assets were owned by its customers and equity was referred to as 'customer equity'. To cushion its customers from increases in electricity prices WEPB used accounting reserves extensively: "Any profit or surplus each year was transferred to reserves to fund future maintenance and provide a 'buffer' to State electricity increases in bulk power" (Hooks & Stewart, p. 91). In addition to this, electricity tariffs for the residential customers were being subsidised by tariffs charged to the commercial consumer.

In the 1980s, with the advent of New Public Management (NPM) reforms, the government of New Zealand began taking its first steps towards deregulating the electricity industry. As a consequence, WEPB's cooperative organizational form became a persona non grata and WEPB was being criticised for its "lack of commercial objectives, poor returns on assets and poor investment decisions" (Hooks & Stewart, p. 90). Government reforms of the electricity industry culminated in the forced creation of the public company Power New Zealand Ltd. in 1994. It was argued that a business corporation that rewarded WEPB's customers/owners (now shareholders) with dividends and efficiently produced electricity at competitive market prices would be in the customers' best interest. The government used its coercive powers to impose a new institutional logic on WEPB.

Findings

- *Accounting practices are tailored to suit prevalent institutional logics:* For example, before privatization set in, WEPB's accounting practices were defined by guidelines devised by the electricity industry. Because WEPB was aimed at 'serving the community' *not* making profits its accounting techniques were used to display its assets at prices lower than their actual value. In this way WEPB could justify to the government the low prices it charged its consumers/cooperative owners. When the guiding institutional logics shifted towards 'shareholder value maximization' accounting techniques became more commercially oriented. The values of WEPB's assets were bolstered by valuing them according to modified historical cost (cost of replacement) and stretching the expected lifetime of its network assets to 60 instead of 25 years. Boosting the assets' value opened up for further borrowing opportunities. Also, inflating the value of the assets caused WEPB's ROI to drop and management could use this to justify price increases. The beefing up of assets also included the re-christening of goodwill as 'identifiable intangibles' with an amortisation period of 40 instead of 20 years reducing its impact on profits.
- *Accounting, notably, in state-owned/state-managed entities, reflects the reigning political and economic ideologies and social interests*: Prior to privatization, when WEPB was a cooperative whose overarching purpose was the provision of affordable electricity to its domestic customers the company had 13 different reserves designed to cushion its domestic customers from any cost increases. Most of these reserves were depleted in the 1970s when the government froze the prices of WEPB's electricity tariffs and what remained was converted into 'retained earning' in congruence with the new private-sector, profit-maximizing logics that favoured the shareholders over the consumers.

2.4 Conclusion

2.4.1 Institutional theory's take on accounting change

From its early beginnings, institutional theory has concerned itself with explaining how *new* structured behaviours emerge. Institutional theory describes a company's accounting practices as being made up of formal rules (how accounting should be carried out) and informal routines (how accounting is actually carried out) that have the potential (if they, over time, prove to be successful) to become part of the company's institutional oeuvre.

The main argument running through institutional research is that companies are guided in their choice of accounting technologies by what is socially acceptable rather than what is technically suitable: "... institutionalised organisations tend to adopt structures and procedures that are valued in their social and cultural environment" (Ribeiro & Scapens, 2006, p. 96). By conforming to society's expectations organizations lend credibility and legitimacy to their actions and procedures allowing them to gain access to needed resources (e.g. government subsidies, bank loans, qualified workforce etc.). Thus, according to institutional theory, accounting changes are not strictly driven by rational, performance-optimising objectives.

According to institutional theory, these socially sanctioned accounting institutions are embedded in the accounting technologies that pass into the organization. However, these embedded macro-level institutions only seep out of the accounting devices and become part of a company's specific, micro-level institutions if they manage to lodge themselves in the minds of the company employees who start to reproduce them mechanically: "It is only when rules permeate actions and are widely recognized as the appropriate or legitimate way of 'doing things' that we may speak more firmly of institutionalized action patterns" (Modell, 2007, p. 346).

Institutional theory does not provide us with still snapshots of accounting systems in various stages of development but gives us an explanation of the transformations that take place as the company shifts from using 'accounting system A' to 'accounting system B'. Put differently, accounting change is depicted as a continuous process with both regressive and progressive elements that is, from time to time, "disrupted by discrete events in organizational life" (Modell, 2007, p. 345) (e.g. a new CEO, a company takeover, new government legislations etc.) that instigate more pronounced/distinctive accounting change episodes (e.g. the introduction of a new accounting system). Hence, institutional theory "rejects a "comparative-statics" approach to the analysis of change and seeks to go beyond an exclusive focus on the outcomes of change processes typical of the neo-classical tradition" (Ribeiro & Scapens, 2006, p. 98), which is more concerned with explaining why a certain accounting system is present in the company or why it was abandoned.

An important feature of the institutional perspective is that it stresses the importance of 'power' in the process shaping/reshaping the prevailing habits of thoughts and actions (i.e. institutions): "... to be implemented effectively in the organization, any choice must be backed with sanctioning power" (Moll, Burns, & Major, 2006, p. 193). A much repeated message in institutionally-informed research is that accounting changes that are based on norms and values that conflict sharply with extant organizational institutions stand little chance of success (i.e. being perpetuated in the future). Nevertheless, it also maintains that institutional resistance is not indomitable and can be overcome provided that the 'agents of change' are able to mobilize sufficient power in support of the changes. Consequently, a change in the company's extant 'power structure' might be needed to achieve the desired accounting changes: "... deeply sedimented rules [institutions] were held in place, not by taken-for-granted assumptions, but by very solid relations of power" (Ribeiro & Scapens, 2006, p. 96).

2.4.2 Critique of institutional theory's explanation of accounting change

- *In institutional accounts of change, organizations are, mostly, populated with power-less characters*: Especially, early institutional research has been criticised for its macro-level interpretations of accounting phenomena and the organizations' stylized and uniform responses to institutional pressures that leave little or no room for active human agency: "[Institutional research] tended to see institutions as 'given' structural properties that organizations adopt in a relatively unreflexive and slavish manner" (Modell, Managing accounting change, 2007, p. 346).
- *Institutional theory gives little attention to agency dynamics*: Although institutional theory acknowledges that 'agency' plays an important part of the process of accounting change it is less voluble when it comes to explaining *how* the orchestration of collective action (either for or against accounting change) takes place and who is responsible for it: "... it [institutional theory] is less clear [on] how such collective actions patterns are mobilised and what role potential change agents, such as consultants and management, play" (Modell, 2007, p. 351).
- *A missing institutional link*: NIS tackles the influences of society-level institutions on the company's choice of accounting devices. Once the devices get through the company's threshold, OIE tells us how company-specific institutions affect these socially

sanctioned accounting devices. However, nothing is said about how macro-level institutions from the surrounding environment and companies' micro-level institutions interact.

2.4.3 Lessons gleaned from the reviewed cases

Accounting is a conservative, change-averse function that needs a shock/jolt/kick from the external institutional environment to set the process of accounting change in motion

In none of the examined cases were the accounting changes instigated by, *internal*, company actors; the, *initial*, push for change would, *invariably*, come from beyond company boundaries (e.g. the government or the parent company or from them both). These cases, which took places in diverse cultural settings, lend further credibility to institutional notions of accounting change being institutionally rather than managerially driven phenomenon. Even when organizational actors were convinced that the current system was *flawed* and that a change was required, no *endogenously initiated* attempts ever ensued. This concurs with the Burns and Scapens' (2000, p.10) observation that accounting practices are, on the whole, *change resilient* and are, unlikely, to budge "in the absence of 'external' changes". It also fits well with the institutional notions of decoupled, decorative systems that are only there to secure legitimacy from external institutional constituents. However, decoupling, on its own, does not offer a sufficient explanation as to what *compels* organizational actors persevere with accounting practices they know to be ineffectual, which leads me to the next point.

The fate of the accounting change initiatives is determined by organizational 'power structures'

In order to shed more light on organizational actors' agency institutionalists have resorted to supplementing their arguments with conceptualisations of the nature of 'power'. According to the institutional perspective, companies' accounting practices are formed by existing accounting and non-accounting institutions from within and without the companies. These institutions are kept alive by the actions of powerful individuals with the organization. Those powerful individuals will be interested in keeping things (e.g. accounting practices) as they are to maintain their current positions. Accounting change is explained in terms of the ability of change agents to wrest power away from the incumbents and into their own hands; unless agents of change are able mobilize sufficient power in support of their cause new accounting institutions will not be able to supplant old ones. Accordingly, accounting change failure is explained as a deficiency in power.

The reviewed articles corroborate previous observations that the way power is distributed within an organization can both serve to expedite or hinder accounting change. Yet, they also show that resistance caused by institutional obduracy can be overcome through sagaciously managing the:

- Rewarding/sanctioning of employees for cooperative/non-cooperative behaviours;
- Carefully gatekeeping access to decision-making processes in connection with the accounting change initiatives; and
- Using the authority of organizational actors whose views/opinions are widely acknowledged as *legitimate* to promulgate change in institutional perceptions.

However, before such actions are taken, it must be emphasized that 'power structures' are idiosyncratic and unstable and their existence needs to be empirically ascertained: "... power should not be treated as a static property 'belonging' to certain actors, but as a dynamic force brought about by collective actions" (Modell, 2007, p. 351).

Especially, in the cases where the norms and values embedded in the introduced accounting technologies strongly contrast with prevalent institutional logics it is not enough to plan how the new system will be technically implemented, a plan for dismantling the old/unwanted institutions must also be in place

If it is not possible to accommodate current institutional logics through adjusting/reconfiguring the system, a strategy for acclimatising company actors with the norms and values embedded in the new accounting system should be part of the accounting change program. The wisdom to be taken is that those responsible for accounting change projects need to consider both the technical and the social aspects of implementing the accounting changes.

Accounting change is a slow process

Institutional theory tells us that accounting change is a continuous, long-term process and not something that takes place at neatly punctuated intervals. Particularly, in cases where existing accounting practices enjoy wide acceptance and where those who will be affected by the accounting changes are not powerless to resist them accounting change can be a prolonged and protracted affair that may take years. Consequently, organizations that are in need of a speedy accounting regime transition might want to consider hiring new employees who are more institutionally in-tune with the new systems. In other words, 'institutional transplantation' might be a faster (and possibly a cheaper) option than de-institutionalisation for doing away with unwanted, ingrown accounting practices.

<u>Overview of the institutional theory cases</u>

The case of **Eagle** by Siti-Nabiha and Scapens (2005)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A gas processing company in East Asia (most probably Malaysia)	The imposition of accounting changes on a subsidiary by its parent company	Longitudinal, interpretive case study	Interviews, documentary evidence, on-site observations, and informal conversations	▪Reliance on brute force to impose institutionally incongruent accounting systems may only result in cosmetic changes. ▪New accounting rules will be interpreted in light of the current institutions. ▪The decoupling/sidelining of institutionally incongruent accounting practices is not necessarily an instinctive official organizational response. Resistance to the changes can come from any part/sub-group in the organization with strong mental allegiance to their current ways of thinking and doing and who have the means to oppose the changes. ▪The introduction of new accounting systems/technologies is unlikely to be undertaken, solely, for legitimacy seeking purposes. More probably, accounting changes will also be motivated by a desire to improve some aspect of company performance. ▪Motives/reasons for accepting/resisting accounting changes will differ between the various groups and sub-groups depending on the institutional logics that inform their thoughts and actions. Organizations are not homogenous institutional blocks with unified responses to isomorphic pressures. ▪Decoupling can sometimes be beneficial to the company. If black boxed assumptions about the company's accounting practices were re-opened every time an external institutional constituent called for change the company's internal process would suffer. ▪For revolutionary accounting change to take place the institutions on which the current rules and routines must be brought into question. Eagle's managers had no reason to doubt the efficacy of their current ways of thinking and doing, Eagle was company that was both operationally and financially successful. ▪Accounting changes will, always, be filtered through the company's pre-existing institutions. As a consequence, elements from the *old* ways of thinking and doing will carry over to the new rules and routines. Therefore, resultants accounting changes will have regressive and progressive elements mixed together. ▪Accounting change can still take place even if the *officially intended* change objectives failed to materialize.

The case of **Sevillana** by Tsamenyi, Cullen, and González González (2006)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A large Spanish electricity company	The introduction of a new accounting and financial information system following a change in the company's ownership	Longitudinal case study	Participatory and non-participatory observations, semi-structured and informal interviews, company documents and information from its Intranet, publically available information on the Internet.	■The case demonstrates that also the parent company can be a source of coercive pressuring. ■Normative isomorphic pressures can spring up from within the company (i.e. there source need not be exogenous). ■The driving force behind a company's accounting changes will likely be a mixture of external institutional demands and internal technical needs.
The case of **PSP** by Nor-Aziah and Scapens (2007)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A Malaysian public utility company	The introduction of a new budgeting system to a public utility company	Explanatory case study	Semi-structured interviews, company documents, newspaper reports, and direct observations	■Institutional pressures are not a unidirectional mass force. ■Decoupled (ornamental) accounting practices should not be viewed as kneejerk official reactions but as the outcome a process of social interaction involving power and trust. ■Accounting changes can lead to functional groups (e.g. accounting and production or R&D) with incompatible institutional logics being pitted against each other. ■The accounting systems of companies working in highly institutionalized environments are determined by mixture of institutional pressures and instrumental considerations.
The case of **Omega** by Yazdifar, Zaman, Tsamenyi and Askarany (2008)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A privately owned UK chemicals processor	Management accounting change in a subsidiary company	Longitudinal, case study	Primarily interviews in addition to some company documents	■A company's *formal* accounting structures and arrangements are a product of its institutional environment. Even *dysfunctional* official accounting systems who clearly do not serve any instrumental purpose will continue to be maintained in order to keep up the facade of institutional compliance. ■Accounting change that requires a major institutional overhaul is a long-term endeavour

				that may take years to accomplish. ▪A strategy for accounting change should only be laid down after the company's institutional context has been thoroughly understood. ▪The outcome of accounting change is determined by interactions between external and internal institutions. NIS traces influences of external institutional forces to companies' doorsteps. OIE tells us how institutions inside companies shape accounting practices. What is missing from the explanation is *how* macro-level and micro-level institutions are connected.
The case of **TexCo** by Mayada A. Youssef (2013)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A family-owned textile manufacturer in Egypt	Management accounting change accompanying the introduction of B2B extranet	Longitudinal, case study	Semi-structured interviews, company documents and personal observations	▪The case emphasizes the role of information technologies as a facilitator of accounting change. By providing the accountants with more timely, detailed information and giving them more time for reports preparation the accountants' role was transformed from the mechanical production of financial statements to active involvement in the production planning process. ▪External environmental jolts can create *opportunities* for re-examining a company's accounting practices. However, how much accounting change these external disruptions are likely to lead to and how much resistance accounting change will encounter will depend on the company's context. ▪Institutional recalcitrance (i.e. the *system's* unwillingness to change) can be overcome through the careful deployment of: Power over resources; Power over decision-making; and Power over meaning Notes: The mobilization of 'power over resources' need not only take the form of giving or barring access to financial and material resources (e.g. bonuses paid for satisfactory implementation of the new accounting system) but can also mean drawing on status and position in the company to compel others to accept the changes. 'Power over decision-making' essentially refers to determining who will take part in the accounting change process. Finally, 'power over meanings' has to do with the 'change agents' convincing others in the organization of the legitimacy and desirability of their solution and the absence of viable alternatives. ▪The Burns and Scapens OIE-based framework contends that the institutionalization of

				accounting practices occurs as the behaviours connected with the new accounting rules and routines are repeatedly reproduced. This article contends that other factors, such as the system's simplicity, may also be involved.
The case of **Moli** by Sharma, Lawrence and Lowe (2014)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A privatized Fijian telecommunication company	Accounting change taking place in the course of company privatization	Longitudinal case study	Semi-structured interviews, publically available information, and documents and reports produced by the case company	▪Coercive pressures for accounting change can originate from beyond national borders. ▪Revolutionary accounting change needs institutional entrepreneurs (i.e. agents of change) whose thoughts and actions are not bogged down by ossified, outmoded institutional logics and whose change initiatives enjoy internal (e.g. company's top management) and external backing (e.g. parent company or the government). ▪Revolutionary accounting changes are unlikely to be enthusiastically picked up by indigenous organizational actors who have grown accustomed to certain ways of thinking and doing. In other words, revolutionary accounting change is not likely to be endogenous.
The case of the **Waitemata Electric Power Board (WEPB)** by Hooks and Steward (2015)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A distributor and retailer of electricity in Auckland, New Zealand	Accounting changes that take place at a State-sponsored cooperative in the course of its privatisation	Case based research	Written materials from the company's archives supplemented with semi-structured interviews with three of the company's former employees	▪Political and economic ideologies and social interest form accounting practices.

Chapter 3: Actor-network theory and accounting change

3.1 Introduction

ANT, how it differs from institutional theory

In the previous chapter accounting change was depicted as an organizational response to institutional pressures that compel it to adopt institutionally sanctioned accounting technologies that are believed to bestow legitimacy on the actions of the organization and its members. Actor-network theory (ANT) does not deny that institutions *can* have an effect on process of accounting change. However, unlike institutional theory, it does not ascribe to notions of pre-existing institutions with preordained effects: "In ANT, the social is explained, whereas in NIS the social is used to explain other events" (Rautiainen & Scapens, 2013, p. 101). Hence, according to ANT, if there are institutions (whether inside or outside the organization) and if they affect the process of accounting change then this connection must be empirically established:

> "The ANT-inspired approach would suggest that the social environment is ambiguous until its links to accounting have been specified. This includes an explanation of how the external environment becomes part of the explanation" (Justesen & Mouritsen, 2011, p. 180).

Another crucial difference is that ANT endows the participants in its accounts of 'accounting change' with a more *vigorous agency*, whereas, in institutional theory, "actors are not pro-active, but merely react to the pressures coming from their external social context" (Rautiainen & Scapens, 2013, p. 100). Expressed differently, in institutional theory, actions are moulded by overarching institutional structures while ANT uses actions to explain society's institutions.

ANT's origins

ANT is commonly associated with the works of Bruno Latour, Michel Callon and John Law (Justesen & Mouritsen, 2011; Lukka & Vinnari, 2014; Barter & Bebbington, 2013; McLean & Hassard, 2004). ANT is a framework that was originally devised to analyse *how* scientific facts are socially constructed: "... they [ANT scholars] argued that knowledge is a *social product* rather than something generated through the operation of a privileged scientific method" (Law, 1992, p. 381). According to ANT, scientific facts are the product of "a particular 'system-building' process [what ANT scholars refer to as *translation*] which embodies ‘enrolling and controlling’ human and non-human allies” (Wickramasinghe & Alawattage, 2007, p. 436). Thus, from an ANT perspective, knowledge *production* is the joint effort of humans and non-humans (O'Connell, Ciccotosto, & De Lange, 2009). Expressed differently, ANT is “a methodology for understanding how actors (whether human or non-human) are enrolled into a network around [in support of] an idea” (Whittle & Mueller, 2010, p. 629). In short, ANT is a sociologically-informed fact-building framework. Accounting researchers were inspired by ANT’s framework because, much like science, accounting is also, traditionally, viewed as an impartial, technical discipline that takes place in a social setting.

The ANT framework is concerned with *tracing* fact-building actions not with explaining them. It is neither interested in the actors’ motives for engaging in fact-building or with the results of their efforts: “... ANT is *not* a theory of action, no more than cartography is a theory of the shape of coast lines” (Latour, 1996) (this is as cited in) (Ahrens & Chapman, 2006, p. 103). ANT is therefore not concerned with the *ultimate* fate of an accounting technology (i.e. will it, eventually, become a permanent accounting fixture in the company or will it become defunct and discarded?) but with what the actors and actants are *doing with it* or *to it* on until it reaches a point of ‘transient stability’. Thus, ANT follows the actions of the users of accounting device (both within and without the organization) and the figures it produces up to the point where the use of the accounting system becomes, for a time, widely acknowledged (i.e. the network supporting the system temporarily stabilizes) and the figures it produces come to be regarded as the ‘truth’ about the company’s financial and economic situation. In short, ANT is about the trials and tribulations that the yet to be accepted accounting systems undergo on their way to receiving ‘society’s accreditation’ (i.e. before becoming problem-free blackboxes):

> “Social constructivism, especially ANT, seeks to open up the ‘black box’ of theories, technologies and systems (including accounting ones) to reveal they are not stable self-evident ‘truths’ but are created in unstable networks of human and non-human ‘actants that negotiate solutions (in constant flux) based on shared meanings and alignment of their interests” (Hopper & Bui, Has Management Accounting Research Been Critical?, 2015, p. 14)

<u>ANT and accounting</u>

Interest in ANT emerged as part of accounting researchers’ interest in sociological explanations of accounting phenomena at the beginning of the 1980s (Justesen & Mouritsen, 2011; Wickramasinghe & Alawattage, 2007). The first accounting research to be inspired by ANT appeared at the beginning of the 1990s (Justesen & Mouritsen, 2011; Lukka & Vinnari, 2014) and has, since then, been extensively applied "in studies of the discursive processes of accounting change across the past 20 years" (O'Connell, Ciccotosto, & De Lange, 2009, p. 4). It is, generally, agreed on that Latour has been the main source of inspiration for accounting researchers (Baxter & Chua, 2003; Baxter & Chua, 2006; Justesen & Mouritsen, 2011; Lukka & Vinnari, 2014; Ahrens & Chapman, 2006). However, in their review, Justesen and Mouritsen (2011, p.185) also attest to the existence of "an interesting and growing ANT-inspired accounting literature that is primarily inspired by Callon's work". The articles reviewed in this chapter all proclaim Callon's work to be their primary source of ANT-inspiration.

ANT and accounting change

Accounting change is a main focus of ANT-inspired accounting research (Justesen & Mouritsen, 2011; Baxter & Chua, 2006; Lukka & Vinnari, 2014). Accounting researchers have used the ANT framework to explain how technical and ostensibly neutral accounting technologies are linked to the social (Justesen & Mouritsen, 2011). ANT researchers attempt to explain how heterogeneous networks of human actors and non-human actants (e.g. computers, software, accounting ledgers, and even the very rooms/offices where the act of accounting takes place) all (temporarily) come together in support of a, as yet, unproven, accounting technology and how that accounting technology and the inscriptions that it produces acquire the status (at least for some time) of unassailable facts (i.e. the accounting device produces figures that *are believed* to accurately represent the company's financial and economic situation). ANT researchers trace how 'plausible claims' about the new accounting technologies and what they can do are transformed into 'indisputable, solid arguments' (black boxes). Expressed differently, ANT studies how heterogeneous, "fact-building networks, [temporarily] fortifying extant management accounting practices" (Baxter & Chua, 2006, p. 61) are constructed.

From the perspective of ANT, newly introduced accounting technologies *succeed* (i.e. are accepted as an unproblematic aspect of the organization's functioning) not because of their technical qualities (e.g. ease of use or accuracy) but because the fact-building efforts of the translators/innovators (i.e. the instigators of change) "manage to convince the greatest number of human and non-human allies of their viability" (Lukka & Vinnari, 2014, p. 1316). Thus, from an ANT perspective, accounting change is never a straightforward process with clearly demarcated, sequential phases but "an on-going translation process ... [where] the traditional distinction between a design phase and an implementation phase becomes irrelevant, or even misleading" (Justesen & Mouritsen, 2011, p. 170). As a result, ANT researchers try to commence their studies while the controversies and conflicts that, usually, accompany the introduction of novel accounting devices are still evident as it is only (so ANT proponents believe) the *failings* of the accounting system that can *expose* its inner workings to the researcher: "... the [ANT] researcher is asked to get into the middle of the action and observe it (the action and the processes) and not move too soon to an explanation based solely on societal explanations or those arising solely from the natural world" (Barter & Bebbington, 2013, p. 35). In other words, ANT researchers should "follow accounting while it is in the making" (Justesen & Mouritsen, 2011, p. 170). Ideally, ANT researchers should observe, first hand, how these controversies are settled (or not), how the new accounting devices are turned into *unproblematic* black boxes that are mechanically utilized by the organization's employees without much reflection or afterthought (i.e. without much bickering and squabbling over the *factuality* of the figures and results that the accounting system produces).

Thus, ANT portrays 'accounting change' as an arduous and messy task where "rational demonstrations of the costs and benefits of a proposed new accounting technology are not enough to bind an actor network" (Baxter & Chua, 2006, p. 62). Rather, for accounting change to take place, a host of *interessement strategies* (Callon, 1986a) (that appeal to the interests of network members) need to be *constantly* deployed (and, from time to time, retuned/recalibrated) in order to secure network members' continuing support for the new accounting device:

> "... the stability of a system is a laboriously achieved state that might collapse at any time. *Constant maintenance* is needed to keep a network of alliances from dissembling and established truths from being questioned" (Lukka & Vinnari, 2014, p. 1316) (italics mine).

Accordingly, ANT sees accounting as a "technology of decision making and control" (Wickramasinghe & Alawattage, 2007, p. 436) that is co-produced by human actors and non-human actants. In other words, ANT sees accounting technologies as sociomaterial construction: "a product or an effect of a network of heterogeneous materials" (Law, 1992, p. 381) (italics in original text). Therefore, from an ANT perspective, explaining accounting change requires that the researcher examines the accounting device's involvement in that process, which takes me to my next point.

A unique feature of ANT's framework: The agency of non-humans and how this affects ANT-inspired accounting research

A distinctive feature of ANT is the *ontological parity* given to human actors and non-human actants in its analytical framework: "... software, political ideologies, and numerical inscriptions are all considered equally concrete agencies, and as real in an ontological sense as human beings" (Lukka & Vinnari, 2014, p. 1316). For ANT, the *form* the agency takes is not important as long as the entity (be it man, manmade or beast) has an effect on how events unfold: "ANT has introduced a definition of actors as any things which have an impact on the action of some other agents, regardless of whether they are human beings or not" (Lukka & Vinnari, 2014, p. 1323). In other words, ANT gives no "agential priority" (Whittle & Spicer, 2008, p. 612) to any type/kind of actor in its analytical accounts.

However, in order to be part of an ANT network the actor/actant must act: "For ANT, only those people, things, and networks are worthy of study that leave an imprint, that possess actor-like qualities" (Ahrens & Chapman, 2006, p. 103). As a result, we find that accounting devices are depicted as active participants in the network-building processes. Hence, accounting change is viewed as a mixture of human action and non-human effects.

Because ANT endows accounting devices with a kind of quasi-agency, accounting is not seen as a simple conduit of information but "plays a less innocent 'mediating' role as it passes things between humans" (Roberts, 2014, p. 137). However, it is important to emphasize that, no matter whom or what is the author of the action, there are no *stand-alone* agencies in ANT. Each actor's agency is a *composite agency* that relies on its connections/associations with other human and non-human actors for its enactment: "... with an ANT lens humans cannot be seen in isolation from that which makes them purposeful; humans and non-humans are intermeshed and exist in actor-networks" (Barter & Bebbington, 2013, p. 35). Thus, understanding the role(s) of non-human actors is essential:

> "... it is only after all these resources: the computer software; the accountants; the IT people; the computers, have been successfully brought to bear that controversies are settled and black boxes are produced" (Lowe, 2001, p. 330) (this as cited in) (O'Connell, Ciccotosto, & De Lange, 2009, p. 5).

Having said this, tracing the agency of non-humans is difficult as the agency of non-humans is, usually, only noticeable as long as there are problems surrounding their usage:

> "When a machine runs efficiently, when a matter of fact is settled, one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure

> they become" (Latour, 1987, p.131) (this is as cited in Rautiainen and Scapens, 2013, p.107).

3.2 Key analytical concepts

The four moments of translation

The process where the 'agents of change' gather support for a new accounting technology is referred to as 'translation'. Thus, translation can be likened to a kind of network building "during which the identity of actors, the possibility of interaction and the margins for manoeuvre are negotiated and delimited" (Callon, 1986a, p. 203). According to Callon (1986a), this network-building process is made up of four iterative, non-sequential phases (moments):

- *Problematization*: This is where the translator makes his initial network proposition.
- *Interessement*: This is where the translator tries to get network members to accept the roles that he has assigned to them in the network.
- *Enrolment*: This involves the negotiations and material investments needed to secure the interessement of the network actors.
- *Mobilization*: This is the point where the network members begin to fully accept the translator as their *head* spokesman and where he, in turn, is able to rely on their active support for his problematization and its proposed solution.

If successful, the translator ends up with a network of like-minded actors where his proposed accounting device is concerned.

Problematization

In problematization the translator attempts to focus the attention of potential network members on a joint problem, a challenge, a threat etc. that they (as he claims) are facing. The translator tries to convince potential network members that he has the *right* answer to that problem and that their interests (i.e. the fulfilment of their individual goals) lies in letting him lead their collective and coordinated response to that problem.

Part of problematization is the translator deciding on the cast of actors that should (as he sees things) be part of the new network and assigning specific duties and responsibilities to each of them:

> "[The translator] associates heterogeneous entities. [He] defines their identity, the roles they should play, the nature of the bounds that unite them, their respective sizes and the history in which they participate" (Callon, 1986b, p. 24).

Through the problematization the translator is attempting to manoeuvre himself (and his solution) into a central position in the network he is constructing. The translator's aim is to convince network members that in order for them to reach their individual objectives they need to make a detour that passes through him and the solution he controls. In other words, the translator aims at becoming an obligatory passage point (OPP):

> "The primary aim of initiators [the translators], who try to establish associations between themselves and other actors, is to make the [new accounting system] an obligatory passage point, that is, a unique and well defined practice that they control and that other actors must follow (Siverbo, 2014, p. 129).

Interessement

Interessement is the phase where the solidity of the translator's problematization is tested. According to Callon (1986, pp. 207-208), "interessement is the group of actions by which an entity [i.e. the translator or network-builder] ... attempts to impose and stabilize the identity of the other actors it defines through its problematization". In interessement the translator is trying to, firmly, latch network actors on to *his* problematization and to erect barriers between them and the 'competing problematizations' of other actors that are trying to translate their, identities, goals, objectives etc. differently: "To interest other actors is to build devices which can be placed between them and all other entities who want to define their identities otherwise" (Callon, 1986a, p. 208)

The list of strategies and mechanisms that the translator can employ to secure interessement are, virtually, endless as (almost) everything is admissible (Callon, 1986a). Examples of interessement devices that could be used in an accounting context include "anything that confines actors such as systems, meetings with certain agendas, statistical graphs, trainings, and promotions but also someone else, such as consultants, who provide material (e.g. powerpoints and guidelines) or non-material instructions on how to carry out certain tasks and why" (Becker, Jagalla, & Skærbæk, 2014, p. 326). The translator's choice of interessement strategies "is founded on a certain interpretation of what the yet to be enrolled actors [i.e. potential network members] are and want as well as what entities these actors are associated with" (Callon, 1986a, p. 211). However, regardless of how cleverly the interessement strategy is crafted the translator can never be sure of its success. If the interessement strategy is successful then it "confirms (more or less completely) the validity of the problematization and the alliance it implies" (Callon, 1986a, pp. 209-210).

Enrolment

Enrolment describes the fine-tunings, tests, adjustments, and modifications etc. made to the existing interessement devices and/or the introduction of new ones in order to maintain sufficient 'levels of enrolment' (i.e. a strong, non-perfunctory commitment/attachment to the translator's problematization):

> "Uneasy enrolment is frequently accompanied by compromising and refined interessement meaning that if change agents do not experience sufficient enrolment, further interessement devices are required ..." (Becker, Jagalla, & Skærbæk, 2014, p. 326)

Mobilization

Mobilization describes the phase where the translator manages to become the head spokesman for the diverse groups of actors that make up the network: "The translator is thus the spokesman of the entities he constitutes ... The translator expresses their desires, their secret thoughts, their interests, their mechanisms of operation" (Callon, 1986b, p. 25). For mobilization to take place it is necessary that the translator succeeds in quelling the voices of descent and rebellion in the network: "To speak in the name of others is to first silence those in whose name we speak" (Callon, 1986a, p. 216). As head spokesman the translator will be able to speak in the name of the network's actors without fear of being contradicted (at least for some time): "It is certainly very difficult to silence human beings in a definitive manner" (Callon, 1986a, p. 216)

The translator is able to speak in the name of network actors because they have been "reduced to a series of easily manipulable variables" (Callon & Law, 1989, p. 67) whose spokesmen are judged to be representative of their respective populations. In other words, mobilization results in network members' actions becoming more foreseeable and manageable for the translator: "[Network actors are] converted into observable objects *whose behavior*[s] *might in principle be controlled*" (Callon & Law, 1989, pp. 68, italics in original text).

That being said, it is important to emphasize that, if and when, the network actors accept the translator's *spokesmanship* they do this, *only*, within the limits and confines of a specific context (i.e. the current problematization and its proposed solution). Furthermore, support for the translator will only continue to be forthcoming as long as he is able to deliver reasonable progress towards solving the network actors' individual troubles:

> "... the generosity of those entities which are mobilized to provide resources for the translator is not limitless. They are enlisted on the understanding that they will ultimately obtain a return" (Callon & Law, 1989, p. 72).

<u>The twin notions of framing and overflowing</u>

<u>Framing</u>

Callon's (1998) notion of framing is about *organizing interactions* whatever their type. A frame is made up of a collection of heterogeneous material objects and explicit and implicit understanding that when assembled allow frame-members the seclusion they need to conduct their business without fear of interruptions from the world outside. Hence, a *frame* is everything that is mobilized to facilitate interactions between members of the frame. However, Callon stresses that framing does not imply *isolation* from the surrounding context. Frame members have been invited to to be part of the frame precisely because of their position in that surrounding context (i.e. the material and cognitive resources that they control or have access to). In other words, if the frame-members' ties with the outside world were completely and permanently severed then frame-interactions would be meaningless.

<u>Overflowing</u>

This concept refers to idea that it is impossible for any single organizing frame (e.g. contract, accounting manual, accounting regulations etc.) to encompass and anticipate all the relations, results, consequences, outcomes, behaviours etc. produced by the dealings and interactions that will take place between different parties inside the frame. In short, unforeseeable actions and outcomes (overflowing) is *inevitable* (Callon, 1998). The inevitability of overflows is explained by the fact that it is impossible for the *frame-builder* to totally sever all ties between the actors inside the frame and the ones outside it. Members of the frame are who they are and want what they want because of their connections with other actors and networks outside the frame.

3.3 illustrative case studies

<u>The case of the Ferry Division</u>

<u>Case summary</u>

This study deals with the relationship between accounting and company strategy. In the article, the authors suggest that 'accounting' is not always the idle bystander that indifferently waits while management's decides what strategy the company should adopt. Rather, they tell us that "accounting devices can play a complex part in enacting and (re)formulating strategy"

(Skærbæk & Tryggestad, 2010, p. 109). Hence, the researchers extend the cast of actors responsible for strategy formulation to include accounting devices.

At the time of the study commencement in 1996, the future of the Ferry Division looked bleak. The Ferry Division was facing a shrinking market and a substantial loss of customers brought on by a succession of bridge-building decisions made by the Danish government, starting with the Storebaelt Bridge connecting eastern and western Denmark that opened for business in 1998 and followed closely by the international bridge between Copenhagen and Malmö in 2000: "With both bridges in place, the greater part of the Division's revenues (2/3 of the total) would, theoretically, be jeopardized as would employment of the majority of its employees" (Skærbæk & Tryggestad, 2010, p. 112).

A report by the PA Consulting Group's gave the Ferry Division two options. The Ferry Division could either let itself sink gradually into decline (the passive scenario) or, alternatively, they could pursue an active strategy (the active scenario) by turning the Ferry Division into an independent limited liability company. As an independent company the Ferry Division would be able to issue shares and profits would be funnelled back into the company to be used in new capital investments instead of being handed over to its parent company (DSB).

Although the Ferry Division's (later Scandlines) management went for the *active* option, the strategy, nevertheless, fizzled out into something resembling the passive option as proposals of future capital investments, invariably, failed to get past "investment-appraisal process" (Skærbæk & Tryggestad, 2010, p. 113).

A series of reports issued by the PA Consulting Group during 1991 together with a later report issued in September 1992 by an advisory board comprised of representatives from governmental entities and private consulting firms all came to the conclusion that bridges were a manmade force of nature that no strategy that the Ferry Division management could come up with would be able to oppose. The completion of the Storebaelt Bridge and the international bridge between Copenhagen and Malmö would result in the closure of these too lucrative routes and no *strategic* decision/plan/response could change that.

As mentioned earlier, turning the Ferry Division into a limited liability company was, originally, intended as a way to secure funds for future investments. However, because of the dreary outlook drawn by the consultancy reports that prophesied "no growth in the future" (Skærbæk & Tryggestad, 2010, p. 114), the active strategy turned into a strategy of preservation or containment whose purpose was to keep the lid on costs and contain the anger and angst of the soon to be redundant employees while the bridges were being constructed.

Hence, the reports and accounting calculations in these reports swayed the opinions of the decision makers away from ‘growth strategy’ towards “a more passive adaptive strategic option, emphasizing stability and intra-company issues such as cost control and rationalization” (Skærbæk & Tryggestad, 2010, p. 115). Thus, the decision-makers room for strategic manoeuvrability was restricted (framed) by accounting devices.

One of the obstacles that blocked the path of the ‘investment/growth strategy’ was that investment decisions were not made at the Ferry Division but were taken in the headquarters of its parent company DSB who regarded the Ferry Division as “a supplementary activity” (Skærbæk & Tryggestad, 2010, p. 116). In addition, any investment proposal required the approval of the Ministry of Finance who, if it accepted it, would relay it further to the Parliament’s Transport Committee to receive its final stamp of approval. Hence, the problem was that the “calculative frame” (Skærbæk & Tryggestad, 2010, p. 116) wherein it was determined what constituted a good investment was much too expansive extending to actors well beyond the boundaries of the Ferry Division. In short, another proverbial case of too many cooks spoil the broth.

Having said this, the path of new investments was also blocked by the way the Ferry Division itself made decisions about its future investments. It was expected that smaller investment would be recuperated within three years. As for more substantial investments (e.g. investments in new ferries) a “payback method” based on calculating net present value (NPV) figures was applied. Here the problem was that future, long-term savings (beyond the third year) from workforce reductions (the new ferries required less staff) were not part of the calculations. Because retrenchment costs for public servants working on the old ferries were substantial (900,000 DKK per employee) and savings in future labour costs beyond the third year were not included, the “payback method” would invariably produce unfavourable NPV figures. Thus, the time horizon of DSB’s “calculative frame” did not allow for the Ferry Division’s investment/growth strategy to progress: “...the way in which the investment-appraisal process was configured meant that all investment proposals for ferries ended as that – just proposals” (Skærbæk & Tryggestad, 2010, p. 116).

Even so, the validity of DSB’s interpretation and execution of the “development – not liquidation strategy” (Skærbæk & Tryggestad, 2010, p. 117) was brought into question when new accounting devices are introduced into the ‘calculative frame’. Officers from the Ferry Division produced a ‘cash flow scenario’ that showed that if the “development – not liquidation strategy” was carried out as DSB intended then “most of [the] Division’s [future] earnings would be tied up in paying for early retirements and dismissals ... [and] too little cash flow would be left to develop new business" (Skærbæk & Tryggestad, 2010, p. 117). The officers also produced *alternative* calculations that proved that ferries could undercut the bridges' prices and that maintaining the routes that the new bridges were supposed to render obsolete was a doable option. Hence, accounting devices are, partly, involved in determining a company's strategic options:

> "The limited 'development' [i.e. limited capital investments] is not due to constraining conditions 'outside' and independent of the accounting devices, rather these conditions are in fact co-produced (endogenously) in a stream of accounting devices" (Skærbæk & Tryggestad, 2010, p. 117).

In 1995 the Ferry Division became the Government-owned limited company Scandlines. The new Board "dismiss[ed] the CEO who had been so closely associated with the [inactive] adaptation strategy" (Skærbæk & Tryggestad, 2010, p. 118) and Scandlines started to actively pursue the growth/investment strategy. Scandlines needed funds for its growth strategy that "could be made available through privatization and by introducing the company on the stock market" (Skærbæk & Tryggestad, 2010, p. 118). To this end Scandlines started looking for investments that could beef up the value of the company before offering its stocks up for sale in the initial public offering (IPO):

> "...capital investments amounting to approximately 2.043 billion DKK (or 270 million Euro) were made during 1996–97 (1 billion DKK in each year 1996 and 1997). This amount can be compared with the 37.9 million DKK (5 million Euro) in 1995" (Skærbæk & Tryggestad, 2010, p. 119)

Judging from the figures in the above quotation, it appears that DSB's Ferry Division (now Scandlines) has been transformed—owing to the exigencies of the IPO prospectus—from a reluctant investor to one whose thirst for new investments appears to have no bounds. New ferries which were once judged to be unprofitable investments and that could not compete with bridges were now being described as "efficient traffic-machine[s] that can meet the competition from the emerging fixed link[s] [i.e. bridges]" (Scandlines' 1997 annual report) (as cited in Skærbæk and Tryggestad, 2010, p. 119).

The case demonstrates how successive calculative devices alter the decision-makers' strategic view (i.e. the available strategic options). Nevertheless, it is maintained that it is, ultimately, the *users* of the accounting information and not the accounting devices that make the decisions. In other words, the 'strategic outlook' is framed by the decision-maker *and* his/her accounting device. Hence, framing is the result of a 'fused agency' where it the 'human agency' that makes the final decision: "The argument is not that the calculative devices themselves have a certain framing effect. Effects are of a temporal kind and dependent on how people use the devices" (Skærbæk & Tryggestad, 2010, p. 120). Thus, there is a relaxation of the ANT's directive of complete 'agential parity'. Accordingly, we find that the former CEO of the Ferry Division accepts the investment assessments of the "payback method" and the conclusions of the PA Consulting Group reports while the company's officers reject them and instead use alternative cash flow projections to put forth a different argument.

Findings

- *A company's strategic outlook is the product of what its current accounting technologies reveal to the decision-makers:* The SWOT matrix, value chain analysis, and positioning techniques defined 'bridges' as 'manmade cataracts' that the ferries could not sail past; Bridges were seen as being beyond strategic intervention. Consequently, no accounting calculations were undertaken to explore if the Ferry Division could, profitably, undercut the prices of the bridge toll charges and the focus was on "how to contain the costs of the redundant personnel" (Skærbæk & Tryggestad, 2010, p. 115). Thus, accounting devices determine management's strategic outlook, which, in turn, determines what accounting calculations will be carried out, which provides inputs for future strategic decisions and so on and so forth. Therefore, a certain degree of scepticism about the accounting figures might help management avoid falling into a spiral of self-reinforcing strategic myopia. Since no one accounting device can offer decision-makers a complete, objective version of reality, 'accounting change' (i.e. using *different* methods for calculating the financial outcomes of the company's current or future operations) should be considered as a means expanding the company's strategic vision.
- *Accounting change is not the prerogative of the company's top management or the employees at its finance and accounting departments*
- *Accounting calculations are biased:* Accounting devices are not neutral technical tools. Rather, they are malleable devices that are partial to the objectives and interests of their users. When the officers at the Ferry Division came to realize that the "development – not liquidation" strategy was more of a "no development – liquidation" strategy their concerns over the Ferry Division and their future employment started to grow. Using the cash flow scenarios the ships officers were able to demonstrate that the majority of the company's earnings were being used in financing retrenchment costs rather than new capital investments. Also, because the officers' perceived the

bridges as competition rather than immotile edifices they made price calculations that proved that they could compete with the bridges.

- *Accounting devices determine a company's strategic direction:* When the decision was made to privatize DSB's Ferry Division, the exigencies of the IPO prospectus meant the Ferry Division needed to bolster the value of its assets before offering their shares up for sale. Investments in new ferries that previous NPV calculations showed to be unprofitable were now transformed into sound investments. Thus, introducing new accounting devices into the 'calculative frame' alters opinions and actions: "... agency can change (or transform), gradually or immediately, with the adoption of a new tool" (Rautiainen & Scapens, 2013, p. 105). Hence, accounting devices are *opinionated* (and not neutral) transmitters of information.
- *Accounting devices come with their own inbuilt change mechanism:* Since an accounting device capable of satisfying all its users is a non-existing chimera, discontent with the accounting device and the figures/results it produces is bound to emerge. When dissatisfaction boils over (i.e. overflows) it will, eventually, lead to the existing accounting devices being modified or to the introduction of entirely new ones. In other words, accounting devices carry the *germ of change* within them.

The case of LMCU

Case summary

The focus of this study is the implementation of a risk analysis method (RAM) in the urban community of Lille (referred in the text as LMCU), France. The device was developed by the Public Accounting General Directorate (PAGD) of the French Ministry of Finance. The purpose of RAM was to access the financial and non-financial risks local governments were taking in outsourcing their services to peripheral entities (privately owned companies or companies with a mixed public and private ownership). The team charged with implementing RAM included three members from PAGD (one of them was the writer the study) and four from LMCU (two of them from the financial services department).

The official version of RAM was rolled out, nationwide, in the end of 2004. The three members from PAGD were to assist LMCU with implementing RAM. Because RAM enjoyed official government backing from the Finance Ministry it was able to force its way into the local governments. The PAGD representatives did not need to *sell* RAM to the local governments. However, PAGD had to work with a set of, predefined, local actors that were, unwillingly, enrolled in the RAM network. Put differently, local actors at LMCU were not yet convinced that RAM was in fact a, necessary, obligatory passage point (OOP) that, if used, would enable them to better identify and measure the risks of doing business with peripheral entities.

Yet, in the end, politics interfered and changed how RAM was used (or not used). In order to put a led on growing political conflicts and because upcoming elections were not that far off it was decided that RAM would not be used to analyse the specific risks of individual entities. Instead, RAM would produce generalized, innocuous analysis that would not rock anyone's boat. LMCU had, in effect, relapsed back to something resembling pre-RAM ways of analysing risk: "The report reverted to financial indicators familiar to the elected officials, indicators such as cash flows and the level of debt on which political communication is important" (Rocher, 2011, p. 76).

<u>Findings</u>

- *<u>Enrolment comes in degrees</u>*: The case shows that there are *degrees of enrolment* and that enrolment is not an either or question. Even if all network actors have, equally, been force fed the new accounting solution they will still exhibit varying *degrees of enrolment* qualified by their perception of how better or worse off they are likely to be should they cooperate with the translator and accept the new system. Management control services were, at the time when RAM was introduced, responsible for peripheral risk assessments and had their own method for analysing these risks. As a result, management control services "perceived the RAM as being akin to a competitor rather than as a complementary method useful to their work" (Rocher, 2011, p. 73). Moreover, peripheral risk assessments had, previously, been the responsibility of the 'financial services department' and their support for RAM was seen as an attempt to wrist control of this function away from 'management control services' and back into their own hands. Hence, 'management control services' view of RAM was that "... '*it should be done*'. But, it was '*not a primary objective*' and '*they do not see its utility*' (Rocher, 2011, p. 73) (italics in original text).
- *<u>Accounting systems change as they are introduced into a new setting</u>*: In order for PAGD to increase the *low* interessement levels of local LMCU actors it was necessary to reopen a number of RAM's black boxes and re-examine their content. Expressed differently, PAGD had to make changes to RAM's original design to secure local actors' enrolment. The case shows that, in the quest for *local* acceptance, the accounting system can undergo two types of modifications:

- The system's *formal operational framework* may be changed. This referrer to the adjustments made to technical knowhow on which the accounting system is based. In the case at hand, changes in the 'operational framework' were prompted by disagreements between LMCU's 'management control services' and PAGD over:
    a. The types of risk RAM should cover (RAM's black box of 'risk definition' was reopened); and
    b. Which peripheral entities/companies should be subjected to RAM risk assessment (RAM's black box of 'selection criteria' was reopened).
- The system's *usage framework* may be changed. This refers to how the accounting system's actual usage differs from what was originally intended. Originally, RAM was conceived as a tool/device to aid local officials/politicians in making "*ex ante* evaluation[s] of the desirability of outsourcing public services" (Rocher, 2011, pp. 70, italics in original text). However, due to political sensitivity connected with the work of some of the peripheral, semi-governmental entities it was decided that RAM would instead serve as tool for *alerting* elected officials to the financial consequences of their decisions. This meant that even though PAGD had intended that RAM would be used to examine "financial, legal, political and social risks arising from the outsourcing of public services" (Rocher, 2011, p. 74), this adjustment to *usage framework* meant that RAM would *avoid* analysing "operations with a strong political character" (Rocher, 2011, p. 75).

The case of LC

Case description

This case deals with a company's attempt, through accounting regime change~~,~~ to *reconnect* its decoupled accounting system to the control and management of its core operations. The accounting regime change involved the partial adoption of an SAP enterprise resource planning system (ERP); referred to interchangeably as SAP/ERP or SAP. The researched company (henceforth referred to as LC) is a Malaysian company that produces and sells building materials. It opened up for business in 1999 in the city of Johor Bahru (JB or head office) close to the southernmost tip of Peninsular Malaysia. Since then the company has grown and now has production facilities and Sales & Distribution outlets (S&Ds) that are geographically dispersed throughout the whole of Peninsular Malaysia.

As a company, LC displayed a marked lack of corporate unity. The S&D outlets acted as isolated enclaves that depended on their management's local political connections for the business they received. The S&D outlets' reliance on local political patronage meant that they had some *sensitive* (or *dubious* depending on how you look at it) expenses that needed to be concealed.

LC's organizational *disjointedness* carried over to its accounting system that was made up of eight *similar* manual accounting systems. However, apart from notable similarities in design and content, these accounting systems were neither integrated nor connected with one other. In preparing its end-of-year corporate financial statements LC's headquarters (HQ) would send out a standardized Excel spreadsheet (ConsolEx) to its geographically dispersed S&Ds. Having received ConsolEx, aggregate figures (account balances) from a set of locally maintained Excel spreadsheets (S&D Excel) would be copypasted into ConsolEX by the local accounting clerks and then send back to HQ. Thus, the S&D's Excel spreadsheets were, little more than, electronic replicas of the local manual accounting systems.

Unsurprisingly, the heterogeneity and disjointedness of the S&Ds accounting systems also extended to the locally maintained spreadsheets: "... LC had eight slightly different versions of S&D Excel maintained separately by individual S&D offices" (How & Alawattage, 2012, pp. 408-409). LC's accounting setup meant that the preparation of the financial statements could not be used as a means to exercise operational and financial control over the geographically scattered S&Ds. Preparing the income statement and balance sheet was more of an 'annual accounting ritual' maintained in order to:

- *Keep the memory of LC's unified corporate identity alive*: "With such a reporting structure, accounting is not a means of 'control' but of 'memory', from which a unified corporate image could be extracted" (How & Alawattage, 2012, p. 408); and
- *Ward off accusations of mismanagement (illegitimacy)*: "... accounting [at LC] was an institutionalised myth that performed a ceremonial task of portraying the organisation as a "formal" structure that keeps "official records" of operational activities through bookkeeping" (How & Alawattage, 2012, p. 409).

LC finally came to the realization that something had to be done with its fragmented reporting system when one of the S&D managers suddenly resigned taking with him the branch's accounts clerk "and commenced [to set up] his own business competing with the branch" (How & Alawattage, 2012, p. 409). As a result of this incident, HQ became, painfully, aware that their grip on the dispersed S&Ds was tenuous. So, it was reasoned that a new, more tightly net, accounting system would increase HQ ability to observe what was happening in the S&D outlets.

The S&D manager's defection and HQ's subsequent feelings of loss of control were, *collectively, problematized* as an accounting problem. Having decided that a change in the accounting system was the remedy that would give LC's HQ a firmer grip on the S&D outlets an accounting change program was set in motion. Responsibility for translating the process of accounting change was handed over to LC's financial director (FD). FD's role as the translator-spokesman for the needed accounting change was not contested and he was given carte blanche to make the necessary accounting changes. The accounting tool that the FD believed would resolve LC's control crisis was SAP/ERP. Enrolling the S&D's accounting clerks proved to be no great drama; conventional interessement tactics that mixed monetary incentives with threats of dismissal (in the event that they failed to learn SAP) was enough to secure their compliance.

From the perspective of the FD and the local accounting clerks, SAP/ERP was a resounding success: "We have only one accounting system, not eight different systems out there ... and I can now produce all financial statements and reports I need at any time of the year" (How & Alawattage, 2012, p. 412). However, as with virtually every *new* computer program, LC's new SAP/ERP system was not without its *bugs*. After a number of trials and errors and because of IT infrastructural inadequacies it was decided that only the accounting and the HRM modules would be implemented "dropping operational and logistical aspects of the system altogether" (How & Alawattage, 2012, p. 412). This truncated implementation of SAP did not seem to cause much of a stir in LC. LC's FD was satisfied with the results and factory and S&D managers did not seem to care.

Despite the FD's proclamations of the success of the new SAP, changes to LC's accounting regime were, nevertheless, regarded by the case's authors as unremarkable. All what the accounting change amounted to was the creation of synchronized, electronic, version of LC's accounts that was fed with data from the same eight, *unconnected*, manual accounting system.

<u>Findings</u>

- The case demonstrates that producing an acceptable, consensual, version of the problematization is not something that can be accomplished in one fell swoop. In order for the new accounting technology to become an 'obligatory point of passage' (OPP), the translator/spokesman (agent of change) must secure the cooperation (or acquiescence) of the prospective (human) users of the new system. Moreover, the translator will, most likely, find that he will need to alter the initial problematization to fit with the chosen system's technical abilities/limitations. Expressed differently, the translator must, also, secure the accounting device's (non-human actants) compliance:

> "The indispensability of SAP [the chosen accounting solution] was asserted through discursive redefinition of the crisis [problem] to match the pre-defined functionalities of the program, so that implementation of SAP was perceived as the indispensable solution to the perceived crisis of decoupled accounting" (How & Alawattage, 2012, p. 410).

- Accounting change can be understood as change in the two interrelated dimensions of:
  - *Actor transformation*: This relates to changes in the actor's responsibilities and duties as a result of being enrolled in the new network. However, this does not mean that *all* enrolled actors must necessarily experience such transformative changes.
  - *Processual transformation*: This relates to changes in the company's reporting structure (i.e. how and when transactions are recorded and how and to whom they should be reported).

  Hence, through using before-and-after comparisons of how the "relational identities" (How & Alawattage, 2012, p. 412) of the network members have changed (or have failed to change) as a result of their enrolment in the network of the new device and by comparing old and new reporting-flowcharts the translator/system analyst might be able to identify the *trouble spots* that are preventing the new accounting system from functioning as intended.
- Unsatisfactory accounting change can result from failing to identify relevant networks members: The new SAP was unable to improve HQ's ability to monitor LC's operational activities in the peripheries, in part, because S&D and factory managers were *excluded* from the FD's (the translator's) cast of actors whose efforts/resources/knowhow/expertises ought to have been enlisted for a more effective accounting regime change to take place. In other words, the effectiveness of the SAP solution was *delimited* by the FD's preconceptions of who/what should be considered as part of LC's accounting regime and who/what should not. The FD's translation

considered the production and marketing functions to be *visiting guests* of the accounting network. As a result of these shortcomings in the interdefinition of the network's actors we find that:

> "Both before and after SAP, there has neither been a separate management/cost accounting function nor [has] such accounting been assumed by the accounting people. Instead product costing and pricing have always been the "experienced and intuitive" job of the manufacturing plants and S&D managers" (How & Alawattage, 2012, p. 414).

Consequently, it might be prudent for a company not to (as in LC's case) leave the process of translating accounting change in the hands of any one person.

- SAP's inability to connect LC's accounting system with its operational activities was also due to the idiosyncrasies of LC's business environment where securing business relies heavily on local political contacts and where the majority of building-sites' workforce is made up of casual, non-contractual labour. SAP/ERP was not designed to capture and record such environmental imperfections nor were the S&Ds and factory managers interested in recording them. This explains why they did not kick up much of a row when, as mentioned earlier, it was decided to drop the operational and logistical aspects of SAP.

The case of the municipalities of Northern Bohuslän

Case description

This paper studies the introduction of benchmarking to the 'social care' and 'educational services' groups in five Swedish municipalities in Northern Bohuslän. In each municipality there is a municipal council, a municipal board and their administrations (including the CFOs) who, jointly, oversee the two services and are referred to, collectively, as the Centre. For each of the two services there is a committee (headed by a committee chairperson) and a department (with a manager and controller) that are responsible for their delivery to the public.

The initial decision to introduce benchmarking was made in 1996 by the CFOs of the five municipalities. The decision was spurred on by concerns over the large and rising costs of social care and educational services. The CFOs were also troubled by the notable discrepancies in the costs of delivering these services between the municipalities.

The first actors that the CFOs, as translators of the benchmarking network, thought to enrol were the departments' controllers. No elaborate interessement devices were needed as controllers (no surprise there) enjoyed benchmarking work. However, enthusiasm for the benchmarking project did not carry over so easily to other departmental members. In order to overcome departmental resistance and to gain, formal, support for their problematization and their proposed, cost-focused, benchmarking solution the CFOs sought to enlist the support of the Centres' chairpersons. The CFOs "were quite successful because, by the year 2001, all five municipal boards or municipal councils had formally agreed to launch a common benchmarking project" (Siverbo, 2014, pp. 132-133).

In designing the benchmarking tool the departmental controllers first focused their attention on financial indicators and cost ratios as the benchmarking project was initially intended as a cost saving initiative. However, the controllers soon realized that they needed to include some outcome/quality measures (e.g. resident satisfaction, students' marks etc.) if they were to *interesse* departmental managers and committee chairpersons (deputized politicians that only worked part-time with these tasks).

The addition of the outcome/quality measures managed to *interesse* committee chairpersons and department managers because they saw that these measures could be used in "discussions [with the Centres] about value for money spent ... [and to] counterbalance the Centres' excessive (in their opinion) focus on costs ... ." (Siverbo, 2014, p. 134). However, for the most part, interest in the benchmarking reports and belief in the reliability of its figures would wax and wane, from one department to the next, depending on:

- *Firstly*, how efficiently and well managed they revealed that department to be;
- *Secondly*, whether or not, committee chairpersons and department managers could use the reported information to wrest additional funds from the hands of the Centre and/or defend their current levels of spending.

Furthermore, the new benchmarking system only prompted a response if the figures revealed that the costs were comparatively high. If the figures showed the department to occupy a medium ranking in the benchmarking network then no further action was taken as it was deemed that the service had attained the desired equilibrium between cost and quality. Even in cases where the committee chairpersons and department managers would decide to respond to benchmarking reports showing overtly high costs, their response was not to look at ways to reduce these costs but to look for justifications for them and the Centres only rarely managed to get committee chairpersons too make any cutbacks.

Thus, it appears that the benchmarking tool was, whimsically, picked up or discarded by the municipal actors depending on its ability to serve their interests at a particular point in time: “Generally, to what extent actors enrolled as users of benchmarking information seemed to depend on how useful the information was in the power struggle for scarce resources” (Siverbo, 2014, p. 136). Therefore, it could be said that the translators had failed to expand the circle of truly committed (mobilized) users of the new benchmarking tool beyond the narrow group of department controllers. In other words, the CFOs (translators) and controllers (benchmarking advocates in the network) failed to convince other municipal actors of the validity of benchmarking as a tool for increasing their financial efficiency and operational effectiveness.

Findings

- An accounting device’s original design and configurations will be changed, in the course of implementing it, for it to be able to *accommodate* the requests/demands of the other network actors. Hence, the translator’s problematization and solution (accounting device) are like an unsealed box that is, repeatedly, opened and reopened, and its contents disturbed, until a generally accepted version of the problematization and its solution is reached. However, even if the translators of a new accounting network manage to find the right assortment of *interessement devices* (i.e. device configurations) that appeal to the different groups of actors that they want to enrol the new system’s success (acceptance) still cannot be guaranteed. The system itself can produce figures/results (i.e. create realities) that can, inadvertently, put some of the, tentatively, enrolled actors off using it. In other words, the system itself can be a source of *de-interessing* effects: “... the actant (the technique) need not yield to the interests of the actors in the network” (Siverbo, 2014, p. 143).
- Users’ belief in the reliability/accuracy of the accounting system is, *subjectively*, determined depending on the produced figures ability to create a reality that serves their interests.

The case of a Finnish municipality

Case description

This case deals with the introduction of a series of upgrades to a Finnish municipality’s (Case Municipality) risk management system. The improvements to Case Municipality’s risk management system followed closely on the heels of two significant instances of fraud and embezzlement providing evidence that the *existing* risk management system had chinks in its armour that needed to be patched up.

Case Municipality had been well forewarned of the potential defects of its risk management system. As far back as 1986 a working group was formed to give a report on the status of risk management practices in Case Municipality. The report concluded that "... no comprehensive, systematic risk assessments had been conducted and therefore Case Municipality might be unaware of major risks that, if realised, might threaten the continuity of its operations" (Vinnari & Skærbæk, 2014, p. 503). Nevertheless, the 1986 report assured its readers that risk management improvements would be worth pursuing as they would lead to cost savings. Later, in 1993, the topic of unsatisfactory risk management practices resurfaced in a letter from the Association of Finnish Local and Regional Authorities (AFLRA). The letter informed municipal authorities that their risk management activities/functions were understaffed and that they had no officially approved guidelines. Following this resurgence of national interest in risk management, Case Municipality's finance department produced their own report in 1995, which echoed AFLRA's calls for more regulated risk management activities at the Municipal level. Crucially, reports and letters from 1986 and onwards all agreed that municipal risk management practices needed improving and that these improvements would lead to monetary saving and increased safety and security for the municipalities' inhabitants.

The manner in which the risk management activities in Case Municipality were to be carried out and the roles and responsibilities of the different actors were casted using two legal *framing devices* the new Local Government Act of 1995 and the 1997 Municipal Board Regulation amendment. In the new frame Case Municipality's internal accounting unit (IAU) immerged as the, *unofficial*, risk management expert whose task, according to a Case Municipality memo, was "to systematically assess and develop the municipality's risk management, control systems and administrative processes" (Vinnari & Skærbæk, 2014, p. 504).

However, even as the foundations of new risk management frame were being laid down municipal funds were being embezzled by a municipal secretary. Her siphoning off of municipal monies to line her own pockets went, undetected, by her superior for six whole years. The secretary's superior (Director X) defended his long lapse of vigilance by declaring that his control duties were limited to insuring compliance with the annual budget. In other words, Director X did not see himself as being part of Case Municipality's risk management frame. Director X attempted to corroborate his argument by pointing out that there were no written inscriptions stating that risk management was among his duties. As the case proceeded it emerged that no unified (e.g. between the covers of a single manual/booklet) legally accepted document detailing the risk management responsibilities of operational directors like Director

X existed and that these responsibilities could only be indirectly inferred from a number of scattered inscriptions. The shortcomings of Case Municipality's risk management frame were thrown into relief when it came into contact with the legal frame. Case Municipality was, strongly, exhorted to patch up its *leaky* risk management frame: "... the Regional Court judge unexpectedly ended up criticizing Case Municipality's framing devices for lacking proper procedures to prevent fraud" (Vinnari & Skærbæk, 2014, p. 506).

To fix Case Municipality's risk management frame new guidelines based on a widely recognized model for evaluating/testing the effectiveness of organizational internal controls (the 1992 COSO model) was introduced in 2004. The process of repairing the risk management frame proceeded swiftly and smoothly because Case Municipality had been repeatedly and intermittently forewarned of the flaws in its control system. The most recent of these warnings came from the internal accounting unit (IAU) manager who, in 1999, cautioned the Municipality Executive Board that regulatory descriptions of managerial responsibilities (including those of risk management) were, to use his expression, *incoherent*.

However, in spite of the best efforts of the IAU manager and a host of other municipal directors and external risk management experts, events were unfolding that would, once again, *undermine* Case Municipality's risk management frame. This time round, the scene of the swindle was a non-profit, vocational school (VS) belonging to Case Municipality's Secondary Education Institute (SEI) operating across the border in neighbouring Russia. Before being brought to justice in 2006, the school's director and the school chairman managed between them to squander a fair amount of municipal cash along with the school's machinery. In defending his negligent and fraudulent conduct the school's chairman stated that he, simply, chose to *ignore* the 2004 COSO-based guidelines as he judged them *unsuitable* for doing business in Russia.

So, once again, the *adequacy* of Case Municipality's risk management frame was brought into question. This time, however, the questioning of the frame's validity did not come from the legal system but from the Case Municipality's own IAU. The IAU attributed the leak (overflow) in Case Municipality's risk management frame to a "lack of risk awareness among operational and more senior managers" (Vinnari & Skærbæk, 2014, p. 510) and that the remedy was a more comprehensive and refined framing device (COSO-ERM).

The case mentions no further instances of fraudulent activities (overflows) that could cast further doubts on the ability of the new risk management frame to detect malpractice. Yet, the IAU's manager enthusiasm for COSO-ERM is not widely shared:

> “Although risk management is perceived as extremely important, the manner in which it has been framed by the IAU is considered too far removed from the frame of managers’ daily work and the inscriptions are reportedly only employed at a superficial level, to go through the motions of compliance” (Vinnari & Skærbæk, 2014, p. 513).

From the above quotation, it appears that there are municipal actors who are not entirely comfortable with their assigned roles in the risk management frame. This means that IAU’s manager position as head-spokesman in matters of risk management is not entirely secure. Consequently, it may not be long before the risk management frame, once again, become a cause of contention (though maybe not for reasons of fraud or embezzlement) and a new round of reframing activities will, most likely, follow.

Findings

- Changes, updates, improvements, reconfigurations etc. to an accounting system are an ongoing, never-ending task, and any stability gained (i.e. widespread satisfaction with the system) is only temporary and will eventually be lost as the accounting system’s organizing frame and its inscription devices come into contact with other (accounting and non-accounting) frames inside and outside the organization that will have different views and opinions of what the accounting system’s configurations and functions ought to be. In other words, devising an accounting frame that can, definitively, encompass and anticipate all eventualities and that can satisfy all actors/stakeholders directly or indirectly involved with it is virtually impossible.

3.4 Conclusion

3.4.1 ANT’s take on accounting change

In ANT accounting change is depicted as a process where one group of actors subjugates another group of actors to their will. ANT describes how the instigators of accounting change (the translators) manage to *mobilize* the resources, knowhow, influence etc. of the *enrolled* ‘network actors’ in support of their accounting solution. A program of accounting change can therefore be likened to a process of network-building. Hence, successful accounting change hinges, largely, on the abilities of the translator(s) (who does not necessarily need to be in a top managerial post) to finds ways of attaching the interests of potential users to the new accounting system:

> "... the emergence of technical artefacts is the result of an elaborate process of translation which relies on the ability of a principal to bring others to accept their conception of the issues and accept their solutions" (Rocher, 2011, p. 65).

If successful, the *translation* process will result in a group of *likeminded* actors who perceive the *new* accounting device as an acceptable solution to a problem they are facing. However, success is, always, *transitory*:

> "[Accounting] numbers are built on the shifting and transient interests of disparate groups of organisational participants who work incessantly to maintain the ''position'' of (their) numbers and influence over organisational functioning" (Baxter & Chua, 2003, p. 102).

3.4.2 Critique of ANT's explanation of accounting change

Cast selection and account timeline

This criticism concerns how the researcher chooses whose or what trail to follow and for how long: "[The] question of where and when to 'cut the network'" (McLean & Hassard, 2004, p. 499). ANT methodology offers no objective/definitive way to determine who/what to include in the account and when sufficient *describing* and *trail-following* has been done; it is all left to the discretion of the researcher: "An analysis of many accounting studies to date using ANT suggests that the process of identification of actors to be included or excluded in the process is not elucidated in any detail" (O'Connell, Ciccotosto, & De Lange, 2009, p. 15). Additionally, who is to say the *ethnoaccountancy* play that the researcher is recounting ended where the researcher said it did and that nothing of import took place afterwards: "Tracing the actor is a great starting point, but the finishing line is less clear" (Mitev, 2009, p. 14). If this is so, then how can one ascertain that all the relevant actors/actants have been included? If some actors/actants were (either intentionally or unwittingly) excluded, would this not alter the research's findings? (O'Connell, Ciccotosto, & De Lange, 2009).

In response to such criticism one can say that ANT's framework does not require that the researcher follows *everything* that moves/acts. Nor do ANT researchers claim to possess *omniscient eyes* that can observe *all* the actions of potential network members. For example, Skærbæk and Tryggestad (2010, p. 122) are keenly aware that their ability to observe and follow actors is limited and that this can affect the outcome of their research:

> "Our concern is that we might not have done the actors we have followed sufficient justice when describing what made them able to (re)frame strategy. There could even be additional devices the actors used to accomplish their task. Also we

> might have failed to understand fully some complex links between the devices, and between people and the devices".

Degree of embeddedness

Related to this is the issue of *how close* the researcher should follow the actors (i.e. the degree of *embeddedness*) and the risk that the researcher might lose his impartiality if he gets too close (McLean & Hassard, 2004). Here again, it is up to the researcher to decide how close or how distant from the actors he wants to get.

I have found that researchers' response to this issue to be a mixed bag. To avoid allegations of being too friendly with the natives Vinnari and Skærbæk (2014) decided to dispense altogether with *in situ* observations and relied instead on written documents as their primary source of data. On the other end the scale, Rocher (2011) is, closely, attached to the studied network as he is part of the team responsible for the implementation of the new risk management system. However, his role as researcher was not disclosed to all networks members to avoid any behavioural changes that can come from the knowledge that they are being observed. In Siverbo (2014), the author states that he was unable to make any observations in real-time. Yet, unlike Vinnari and Skærbæk (2014), he sees this as a *regrettable deficiency* in his study but reassures us that his familiarity with the network actors from previous research projects would compensate for it. Finally, in How and Alawattage (2012), one of the researcher is a close friend of the financial director responsible for introducing the accounting changes. Here, the personal tie is not a source of worry for the researcher but is viewed positively as it helped her gain access to meeting and documents.

The principle of generalized symmetry

ANT's principle of "generalized symmetry" (Callon, 1986a) requires that the researcher applies the same vocabulary when describing the actions of network members: "... the rule that we must respect in not to change registers when we move from the technical to the social aspects of the problem studied" (Callon, 1986a, p. 200). Accordingly, users of accounting devices and the accounting devices themselves should be given equal space and opportunity to present their views and no side should be granted a central position in the researcher's explanation of unfolding events:

> "... ANT should not grant privilege to either the human or the non-human, it requires an open mind and that no assumptions be made by the researcher regarding who or what is the driver [of action], analysing the network as it exists" (O'Connell, Ciccotosto, & De Lange, 2009, p. 22).

The critique is that many ANT studies *fail* to adhere to this principle and that their analyses are largely *human-centric* (O'Connell, Ciccotosto, & De Lange, 2009). Admittedly, it would be hard for the ANT researcher to *totally* circumvent this analytical snag because at some point, during the translation process (or more precisely the researcher's description of it) *human* actors will have to come forward and speak for (or against) the accounting artefacts/inscriptions: "... the major problem within such ANT studies remains the way that humans (frequently in the form of researchers) have to represent non-humans ... ." (McLean & Hassard, 2004, p. 502). This problem is also alluded to in Whittle and Spicer (2008, p. 615): "ANT is left with the impossible task of trying to gather evidence about the properties of nonhuman elements without involving human participants: that is, without the aid of respondents or researchers". So, if accounting technologies *cannot* speak for themselves then, which of the interviewees' opinions about them should the researcher give credence too and set down in his account? If the case is one of accounting change failure, should he listen to the ones who blame the technology or the ones who exonerate it?

Another problem with the principle of *generalized asymmetry* is that "it tends to equalise all actors, as if all could have the same effect on events and translations" (Mitev, 2009, p. 20), which belies the fact that some actors (e.g. managers) simply have more power/authority over others and that this carries over to their ability to *act* and *influence* events. In other words, some actors *are privileged* a priori: "Management may not win all their games all the time, but they are nonetheless more central to bigger and more resourceful networks" (Ahrens & Chapman, 2006, p. 103).

Translator's motives

Because ANT requires that all actors be treated equally, ANT has been accused of offering little insight into translators' motives for engaging in the task of network building: "... actants are said to mobilise other actants to build and strengthen their networks ... but their motivations for doing so are unaccounted" (Ivakhiv, 2002, p. 394) (this as cited in) (Barter & Bebbington, 2013, p. 39).

ANT is very inquisitive when comes to the *actions* of network members; the researcher is exhorted to follow everything and anything that moves so long as it has an effect on the unfolding events. However, despite its inquisitiveness, ANT's 'trail following' runs a little cold when it comes to the actors' motives: "... actants are said to mobilise other actants to build and strengthen their networks ... but their motivations for doing so are unaccounted" (Ivakhiv, 2002, p. 394) (this as cited in) (Barter & Bebbington, 2013, p. 39). In other words, ANT does not tell us why the translator takes on the arduous task of orchestrating the introduction of accounting changes. The *flatness* of the psychology of ANT is made clear from Callon (1986, p.203) where the motives of the marine biologist for developing a strategy to conserve the scallops of the bay of Saint-Brieuc are described as being "of little importance at this point in the investigation" (Callon, 1986a); nor do these 'motives' manage to become important at any later point in Callon's text.

The impossibility of even transitory blackboxing

Further criticism comes from ANT's claim that there comes a point during the translation process (if it is successful) where the network supporting the accounting device becomes (for some time) *stable* and *unproblematic* (i.e. the accounting device is blackboxed). However, Whittle and Spicer (2008, p. 616) argue that *blackboxing* (no matter how temporary) is an unattainable state as "there is always some aspect of the subjects' [i.e. the enrolled actors] world that is not translated by an actor network". (Vinnari & Skærbæk, 2014)

Eschews the broader contextual factors

ANT has been accused of overlooking external environmental factors in its explanations of what takes place inside the organization (McLean & Hassard, 2004); a critique that I find somewhat unwarranted. It is true that the translation process, as described in Callon (1986a; 1986b; 1989), makes no reference to overarching, pre-existing social structures or generally prevailing discourses, cultures etc. that predispose the actors to behave in certain ways or that guide their actions down preordained paths. However, it does call on the researcher to, carefully, follow and describe network actors' actions and in order for the ANT researcher to be able to make sense of actors' *here and now actions* he must engage in some sort of historical reconstruction of events leading up to the *current translation in progress* including events that took place beyond organizational boundaries. This *historical backtracking* was a common feature in the articles reviewed in this chapter. However, it would be helpful if ANT's methodology offered more explicit guidelines of how this contextualization should be done and how far back one should look.

ANT offers only after-the-fact descriptions of what has already taken place

Owing to its methodological principle of "generalized agnosticism" [that] enjoins the researcher not to [beforehand] take sides about either the technical or the social aspects of the sociotechnical controversy under study" (Callon & Law, 1989, p. 77) ANT treats every accounting change project as a unique and idiosyncratic event that *cannot* be replicated and should therefore be analyzed from scratch every single time. As a result, ANT offers us no normative criteria for assessing the results of accounting change. All the same, a less dogmatic person might say that an ANT analysis of similar accounting change experiences could conceivably offer some guidance for future accounting change projects.

3.4.3 Lessons gleaned from the reviewed cases

Accounting devices are active participants in events and not just part of the backdrop

Before being introduced to ANT, I have always thought that it was the sagacious manager who (perhaps after conferring with colleagues or subordinates) made the (strategic) decisions. ANT has showed me that a manager's prescience (or lack of it) is, in part, due to the accounting tools that happen to be at his disposal. In other words, a manager's 'judgment' is a function of his intellect *plus* the accounting tool; change the accounting tool and this judgment/view/opinion/ changes. Ergo, a manager's judgment is *a composite judgment* where the accounting device actively participates/intervenes in his decision-making processes: "Accounting, then, is not simply a mechanism for implementing and monitoring strategy: it also actively shapes how strategic matters are formulated and decided" (Whittle & Mueller, 2010, p. 631). Thus, one can say that while the traditional accounting paradigm sees 'financial statements' as objective representations of a company's economic reality, ANT sees them as *co-creators* (together with those who prepare them and those who use them) of *a certain version* of reality: "... [financial/economic] success/failure is not an unmediated outcome of the market but *a mediated outcome* of certain accounting devices" (Whittle & Mueller, 2010, pp. 636, italics mine).

Accounting devices are mutable and malleable

A key ANT insight is that accounting devices/techniques/systems *change* as they are transported from one organizational setting to the next: "... management accounting devices *are not diffused* into various organizations as 'ready-made', stable, and immutable objects of representation" (Baxter & Chua, 2006, p. 60) (italics mine). Put differently, accounting devices do not possess any quintessential properties that can be, *unproblematically*, replicated across different organizations: "... unexpected results often follow when systems meet practice and practitioners who challenge, modify or even undermine the system" (Justesen & Mouritsen, 2011, p. 171). Thus, according to ANT, accounting devices are *reconfigured* by the responses of its new users, which is why "one part of the process to be analyzed is the ways in which people's interests are shaped and how attempts are made to persuade potential sceptics about the benefits of the system" (Justesen & Mouritsen, 2011, p. 171). Succinctly put, an accounting device *cannot be introduced into* a company it can only be *translated into it*. Thus, there is no such thing as a *standardized* accounting solution; because there is a 'human element' involved in introducing, interpreting, setting up, and running an accounting system, the system's original design/usage will inevitably be tampered with. Nevertheless, it is important, in order not to be misconstrued, to qualify that an accounting device "is not malleable *ad infinitum* and it allows things to be done [only] in certain ways and not others" (Busco, Quattrone, & Riccaboni, 2007, pp. 136, italics in original text).

Overview of the Actor-network theory cases

The case of the **Ferry Division (Scandlines)** by Skærbæk & Tryggestad (2010)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A Danish state owned ferry company	Accounting's role in determining the company's strategic direction	Longitudinal, case study	▪Semi-structured interviews, in situ observations, and a variety of written materials and documents	▪Accounting devices themselves are a source of change. Since an accounting device capable of satisfying (i.e. serving the interests) of all its users is a non-existing chimera, discontent with the accounting device and the figures/results it produces is bound to emerge. When dissatisfaction boils over (i.e. overflows) it will lead to the existing accounting devices being modified or to the introduction of entirely new ones. In other words, accounting devices carry the *germ of change* within them.
The case of **LMCU** by Rocher (2011)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
The local government in Lille, France	The introduction of a new risk analysis method	Longitudinal, case study	▪In situ observations, notes and interviews	▪From previous reviews of ANT we learn that accounting devices change as they are introduced into new settings. Rocher (2011) offers a further qualification to this by stating that accounting device change involves change in two dimensions: Firstly, changes to the technical knowhow on which the device is based; Secondly, change in the ways the device is used.
The case of **LC** by How & Alawattage (2012)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A Malaysian producer and seller of building materials	An SAP implementation project	Longitudinal case study	▪On site observations and interviews and company documents.	▪Accounting change should be understood as the interrelated changes in: a. The identities, roles and responsibilities of the users of accounting systems; and b. The company's reporting structure ▪The translator's *inability* to identify all relevant network actors can delimit the success of the new system ▪*Enrolment* is not an either or question, different network actors will exhibit different *degrees of enrolment* even in cases where the accounting devices have been forcefully introduced into the organization

Siverbo (2014)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
Five Swedish municipalities in Northern Bohuslän	The implementation and use of benchmarking in public sector organizations	Case based research	■Relies solely on semi-structured interviews	■Successful accounting change is, largely, dependent on the translator's ability to build a strong network of organizational allies that support that change ■Newly introduced accounting devices are like, unsealed, boxes that are, repeatedly, opened and reopened, and their contents disturbed, until a generally accepted version of the problematization and its solution is reached ■Network actors reject or accept a new accounting system depending on its ability to produce results (figures) that serve his/her interests. ■Accounting devices that have been accepted by the network's actors can still produce, unexpected, results that put potential users off using them
Vinnari & Skærbæk (2014)				
Research context	**Research focus**	**Research method**	**Data sources**	**Key findings concerning accounting change**
A Finnish municipality	The introduction of risk management solutions	Longitudinal case study	■Semi-structured interviews, documents from a variety of sources, *no* first-hand observations	■Accounting changes can be the result of the accounting frame colliding with other, influential, accounting and non-accounting frames with different interpretations of how the activity should be carried out. Therefore, changes in the accounting frame are not only caused by the agency of disgruntled individual frame members who feel that they have been unjustly treated by the old frame (i.e. that it disregarded their interests).

Chapter 4: Summary and conclusion

> *Every interpretation of reality is based upon a unique position. Two paces east or west and the whole picture is changed (Durrel, 1958, pp. 14-15).*

The above quotation sums up the way I have come to regard the accounting craft and its dynamics. Much like beauty, accounting is in the eye of its beholder. Nonetheless, the cases that I have reviewed have, decisively, banished any lingering notions that I might still have had of accounting being an assembly of mundane and technical devices. Accounting is, through and through, a subjective, social construction inseparable from the machinations, desires, and objectives of its authors/users and the positions they occupy in society. In other words, accounting does not represent an *objective* picture of a firm's economic reality but *our interpretation* of that reality.

The importance of this understanding can best thrown into relief by examining the interpretation of accounting change offered by a chronological predecessor to the institutional and ANT perspectives, contingency theory.

<u>Contingency theory's take on accounting change</u>

Contingency theory (CT) can be traced back to organizational theory research in the 1960s that "focused on the impact of environment and technology on organizational structure" (Chenhall, 2006, p. 164). Taking their inspiration from these classical organizational theory frameworks, accounting researchers began in the 1970s "to investigate the importance of environment, technology, structure and size to the design of MCS [management control systems]" (Chenhall, 2006, p. 164). CT is interested in studying the effects of external factors because it sees the organization as an open system needs "to maintain a consistent relationship with the environment" (Waweru, Hoque, & Uliana, 2004, p. 176).

Before CT started to inform accounting research in the 1970s "management accounting researchers believed that there was a universal model of management accounting systems that could be adopted by any organization" (Wickramasinghe & Alawattage, 2007, p. 384) whatever their circumstances. This belief in a one best way of doing accounting was an extension of "scientific management principles [that] implied [that] their existed [a] one best way to design operational processes in order to maximize efficiency" (Fisher, 1998, p. 48). CT challenged this universalistic approach and argued instead "that particular features of an appropriate accounting system will depend upon the specific circumstances in which an organisation finds itself" (Otley, 1980, p. 413). Hence, the search for the ultimate accounting system should be abandoned and efforts should instead be directed at "identify[ing] *specific aspects* of an accounting system which are associated with certain *defined circumstances* and demonstrate an *appropriate matching*" (Otley, 1980, p. 413 italics in original text). As a result, "contingency theorists tend to explore under what circumstances management accounting systems work better or worse" (Wickramasinghe & Alawattage, 2007, p. 384).

Despite this new line of thinking, CT's views on management accounting systems remained largely conventional regarding them as mundane and mechanical technologies that "are adopted to assist managers achieve some desired organizational outcomes or organizational goals" (Chenhall, 2006, p. 164) and that passively adapt to the exigencies of the contextual circumstances in which it finds itself. In other words, a company's accounting system is, according to CT, a result of the environment and company-specific attributes:

> "[The contingency perspective] endeavours to match types and features of management control systems and performance measures to organisational, environmental and individual factors. The aim is to identify, for managers, which systems work under which circumstances" (Hopper & Bui, Has Management Accounting Research Been Critical?, 2015, p. 11)

Consequently, influences and effects, in the CT perspective, are seen as being *unidirectional*, from the contextual variables towards the company's accounting system and not the other way round: "... changes in the environment cause changes in organisations, which in turn causes changes in management accounting practices" (Waweru, Hoque, & Uliana, 2004, p. 676). Thus, CT offers an interpretation of accounting change where:

- Accounting *itself* is not involved in the process of accounting change; organizational, technological and environmental factors change and accounting just, placidly, toes the line: "... the accounting entity is influenced by the properties of the environment and technology and becomes an effect that is consistent with the environment. In that sense, accounting is an essentially passive adaptation to the context" (Justesen & Mouritsen, 2011, p. 178);
- Accounting change is depicted as a process free from company politics involving limited social interactions beyond the narrow sphere of the company's accountants;

- Accounting change's chief raison d'etre is to find more suitable accounting tools for management. In other words, "definition of problems, and evaluation of solutions, are both generated [solely] from the organization's perspective" (Puxty, 1993, p. 10), which is one of the hallmark of the traditional paradigm.
- CT argues that the accounting system is selected because its configurations are congruent with the contextual circumstances in which it operates. However, this does not explain why *that specific system* was chosen and not any other system that is just as suitable.

Coming back from this sparse albeit salient digression, the patient reader will now (rightly) be asking himself what the outcome of this lengthy discussion is; are we as a result of ANT and institutional research better able to understand the nature of accounting change? Speaking personally, the answer is *yes* it has. However, the reviewed articles have also served to highlight the complexity of accounting change and that no one perspective is able to give us a decisive answer. In the introduction, I talked about the nearsightedness of the conventional perspective, its technical centricity and its eschewment of accounting's social aspects. Yet, especially for students and novice practitioners like myself I see this phase of technical focus as an essential rite of passage (or on obligatory passage point in ANT terminology) if one is to be able to comprehend what socio-political ramifications a program of accounting change might have. At the risk of stating the obvious, I would say that it would be absurd to attempt to project the social ramifications of introducing, for example, a system of activity-based costing without first, thoroughly, understanding what it is and how it is supposed, *technically*, to work. Nevertheless, thanks to sociologically-informed accounting research, graduates/novice practitioners can commence their carriers fully aware that accounting is not the neutral financial arbitrator it once purported to be.

<u>ANT and institutional theory, a final roundup</u>

The institutional perspective argues that the organization's choice of accounting devices is not one that is made inside the organization. According to this perspective, these decisions *are not* made by the organization's top brass or by members of the accounting department in response to any technical imperatives but by institutions from the surrounding macro environment. Thus, an organization will adopt a Balanced Scorecard not because it needs it but because it will help it secure the approval of its stakeholders for its future business decisions. This is why institutionalists talk of ornamental accounting devices that are detached from the management of daily internal operations and that are nothing more accounting décor designed to ward off any accusations of mismanagement.

However, as the reviewed cases have shown, reality is never so clear-cut. When an organization decides to introduce a new accounting system, one cannot claim, off the bat, that this was done entirely in response to external institutional pressures from its surrounding environment. And just supposing that this was the case the organization will usually have more than one institutionally sanctioned accounting device to choose from. Additionally, external isomorphic demands are not a unidirectional force but are likely to be pulling and tugging the organization in different directions and the company will have to decide who/what it will respond to. Consequently, management cannot be said to be entirely without discretion. The more likely scenario is that choice of accounting system will also have involved some managerial deliberations on how the new accounting device could be used to enhance company performance. In other words, accounting change is a mixture of institutional pressures and instrumental considerations. Which factors are more heavily weighted will vary depending on how institutionally constrained the company's business environment is.

In addition to external institutional forces there are also institutions inside the organizations that govern how its various functions, including accounting, are carried out. Consequently, any new accounting system will be thrust into an ongoing cycle of accounting institutions regeneration. This means that once the new accounting device crosses into organizational boundaries company institutions (including but not only accounting institutions) take over and begin the process of reworking the accounting device to produce a locally sanctioned version of it. This is why we find traces of the old system in the new one. Hence, the introduction of new accounting systems does not mean that old accounting practices are entirely uprooted; some of the former practices will most likely persist in the new accounting system. This is especially the case with accounting whose institutions are notoriously hard to dislodge. Institutionalists therefore encourage us to thoroughly study the institutions setting before committing to any accounting change project. Therefore, to insure a favourable outcome, those responsible for accounting change should choose accounting devices whose conceptual bases and ways of using are not at odds with current institutions or be willing to invest in resources that can help their employees to overcome their institutional inertia.

Owing to accounting's institutional obduracy, an organization's accounting arrangements are unlikely to be tampered with, especially, if things are working (e.g. the company is producing a profit and accounts are in the black). Therefore, in order to re-open accounting's black box an external shock that can kick start the accounting change process is needed. Yet, what is missing from this argument is why the company's accounting system reacts to some of these external shocks while others are simply ignored. Another unanswered question is why management chooses a particular accounting device and not another accounting device that just as socially legitimate as the first device. Put differently, institutional theory offers us no way of ranking our accounting options.

However, not all newly introduced accounting devices are destined to become institutionalized. External institutional pressures might be enough to get the new accounting device's foot into the organization but in order for the accounting changes to gain a firmer foothold they will need the support of resourceful individuals inside the organization. In other words, institutionalists admit to human agency being an integral part of the process of accounting change. Yet, institutional theory says little about how human agency is organized in support of accounting changes, which is where ANT concepts, especially, Callon's four moments of translation, proves useful.

By breaking down agential manoeuvres into four distinguishable phases ANT facilitate closer examination what takes place in connection with accounting change. Additionally, ANT's actors are far less institutionally restrained and are therefore freer to act, whereas actors in institutional theory are criticized for being too placid and resigned to their institutional fate. Alternatively, one could say that ANT gives its actors (in particular the translator) an inflated sense of his/her agential abilities. Bordering on agential hubris, in his delineation of the interessement phase, Callon (1986) describes the number of stratagems the translator can deploy to attach potential network members to his cause (e.g. the adoption of a new accounting device) as being *virtually limitless*. Instead, I would argue that a translator and his confederates, however 'powerful' they may be, remain:

- *Rationally* and *actionally* bounded: Even supposing that 'Homo Economicus' or "[the] rational individual, with omnipotent cognitive abilities, fixed preferences [that is driven by] pure (culture-free) calculation of individual self interest" (lecture by Kjell Tryggestad) can exist his agency will still be flawed. This is because any agency, according to ANT, is a composite agency and the perfection of 'Homo Economicus' will therefore not necessarily extend to his co-agents. In other words, even if the accountant (man) is infallible his accounting device is not.
- Their control over resources is not without its limits;
- There will always be external influences that are beyond the reach of the translator or other network members' actions; and

- The translator as well as the enrolled actors' strategic manoeuvrability is hemmed in by current rules and routines. In other words, the actor-network is a free agent but this freedom is qualified by existing institutions.

Consequently, a better understanding of accounting's change dynamics may be reached by conflating the ANT and institutional perspectives (Hopper & Major, 2007; Rautiainen & Scapens, 2013). Specifically, accounting change can be examined as a number of translation-related actions that take place within the confines of what is institutionally permissible. In other words, accounting change is an amalgam of free active-agency, material effects, and relatively stable, pre-existing institutional structures.

As this thesis draws to its close I want to suggest how ANT and institutional theory's disclosures about the nature of accounting can be put to practical use. However, I want to stress this that this should not be misunderstood as regressing back to traditional perspective thinking and attempting to come up with a priori, normative criteria for how accounting change should be handled. The reviewed cases have underscored that nothing in the accounting change process can or should be taken for granted. Accordingly, the following is a suggestion that may or may not apply to the case at hand.

Having said this, I would advise persons responsible for accounting change initiatives to first examine the company's institutional setting as this can help them:

- Rank the different organizational groups and subgroups according to how much resistance to accounting change they potentially could put up and what their potential reasons for doing so might be;
- Appoint the translator(s) capable of bringing the accounting change initiative to successful conclusion (i.e. bring the accounting system to a state of quasi stability);
- Aid the translator(s) of accounting change in choosing the appropriate strategies for interessing the different organizational groups in the new accounting device.

Even so, in the final analysis, accounting change remains an undomesticated process whose unruliness can only be reduced not eliminated.

Bibliography

Ahrens, T., & Chapman, C. S. (2006). Theorizing Practice in Management Accounting Research. *Handbooks of management accounting research*, 99-112.

Akbar, R., Pilcher, R. A., & Perrin, B. (2015). Implementing performance measurement systems Indonesian local government under pressure. *Qualitative Research in Accounting & Management, 12*(1), 3-33.

Barter, N., & Bebbington, J. (2013). Actor-Network Theory: A Briefing Note and Possibilities for Social and Environmental Accounting Research . *Social and Environmental Accountability Journal, 33*(1), 33–50.

Baxter, J., & Chua, W. F. (2003). Alternative management accounting research—whence and whither. *Accounting, organizations and society, 28*(2), 97-126.

Baxter, J., & Chua, W. F. (2006). Reframing management accounting practice: a diversity of perspectives. In A. Bhimani (Ed.), *Contemporary Issues in Management Accounting* (pp. 42-69). Oxford University Press.

Becker, S. D., Jagalla, T., & Skærbæk, P. (2014). The translation of accrual accounting and budgeting and the reconfiguration of public sector accountants' identities. *Critical Perspectives on Accounting, 25*(4), 324-338.

Burns, J., & Baldvinsdottir, G. (2007). The changing role of management accountants. In T. Hopper, D. Northcott, & R. W. Scapens (Eds.), *Issues in Management Accounting* (pp. 117-132).

Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. *Management Accounting Research, 11*(1), 3-25.

Burns, J., & Vaivio, J. (2001). Management accounting change. *Management Accounting Research, 12*(4), 389-402.

Busco, C., Quattrone, P., & Riccaboni, A. (2007). Management accounting: issues in interpreting its nature and change. *Management Accounting Research, 18*(2), 125-149.

Callon, M. (1986a). Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of Saint Brieuc Bay'. In J. Law (Ed.), *Power, Action and Belief: New Sociology of Knowledge? (Sociological Review Monograph)* (pp. 196-223). London: Routledge & Kegan Paul Books.

Callon, M. (1986b). The Sociology of an Actor-Network: The Case of the Electric Vehicle. In M. Callon, J. Law, & A. Rip (Eds.), *Mapping the Dynamics of Science and*

Technology: Sociology of Science in the Real World (pp. 19-34). Houndmills, Basingstoke, Hampshire RG21 2XS and London: The Macmillan Press Ltd.

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 (UK) and Malden (USA): Blakwell Publishers.

Callon, M., & Law, J. (1989). On the Construction of Sociotechnical Networks: Content and Context Revisited. (L. Hargens, R. A. Jones, & A. Pickering, Eds.) *Knowledge and Society: Studies in the Sociology of Science Past and Present, 8*, 57-83.

Chapman, C. S. (1997). Reflections on a contingent view of accounting. *Accounting, organizations and society, 22*(2), 189-205.

Chenhall, R. H. (2006). Theorizing contingencies in management control systems research. *Handbooks of management accounting research, 1*, 163-205.

Contrafatto, M., & Burns, J. (2013). Social and environmental accounting, organisational change and management accounting: A processual view. *Management Accounting Research, 24*(4), 349-365.

Durrel, L. (1958). *Balthazar* . London : Faber and Faber .

Fisher, J. G. (1998). Contingency theory, management control systems and firm outcomes: past results and future directions. *Behavioral Research in Accounting, 10*, 47-64.

Gordon, L. A., & Miller, D. (1976). A contingency framework for the design of accounting information systems. *Accounting Organizations and Society, 1*(1), 59-69.

Hansen, A., & Mouritsen, J. (2007). Management accounting and changing operations management. In T. Hopper, D. Northcott, & R. W. Scapens (Eds.), *Issues in Management Accounting* (pp. 3-25). Pearson Education.

Hooks, J., & Stewart, R. (n.d.). The changing role of accounting: From consumers to shareholders. *Critical Perspectives on Accounting, 29*, 86-101.

Hopper, T., & Bui, B. (2015). Has Management Accounting Research Been Critical? *Management Accounting Research, ARTICLE IN PRESS*.

Hopper, T., & Major, M. (2007). Extending institutional analysis through theoretical triangulation: regulation and activity-based costing in Portuguese telecommunications. *European Accounting Review, 16*(1), 59-97.

Hopwood, A. G. (1990). Accounting and Organisation Change. *Accounting, Auditing & Accountability Journal, 3*(1), 7-17.

How, S.-M., & Alawattage, C. (2012). Accounting decoupled: A case study of accounting regime change in a Malaysian company. *Critical Perspectives on Accounting, 23*(6), 403-419.

Justesen, L., & Mouritsen, J. (2011). Effects of actor-network theory in accounting research. *Accounting, Auditing & Accountability Journal, 24*(2), 161-193.

Law, J. (1992). Notes on the Theory of the Actor-Network: Ordering, Strategy, and Hetrogeneity. *Systems Practice, 5*(4), 379-393.

Lukka, K., & Vinnari, E. (2014). Domain theory and method theory in management accounting research. *Accounting, Auditing & Accountability Journal, 27*(8), 1308-1338.

McLean, C., & Hassard, J. (2004). Symmetrical Absence/Symmetrical Absurdity: Critical Notes on the Production of Actor-network Accounts. *Journal of Management Studies, 41*(3), 493-519.

Mitev, N. (2009). In and out of actor-network theory: a necessary but insufficient journey. *Information Technology & People, 22*(1), 9-25.

Modell, S. (2007). Managing accounting change. In T. Hopper, D. Northcott, & R. W. Scapens (Eds.), *Issues in Management Accounting* (Third ed., pp. 335-356). Person Education.

Modell, S. (2014). The societal relevance of management accounting: An introduction to the special issue. *Accounting and Business Research, 44*(2), 83-103.

Moll, J., Burns, J., & Major, M. (2006). Institutional Theory. In Z. Hoque (Ed.), *Methodological Issues in Accounting Research: Theories and Methods* (pp. 183-205). London: Spiramus Press Ltd.

Munir, R., Baird, K., & Perera, S. (2013). Performance measurement system change in an emerging economy bank. *Accounting, Auditing & Accountability Journal, 26*(2), 196-233.

Nor-Aziah, A. K., & Scapens, R. W. (2007). Corporatisation and accounting change: The role of accounting and accountants in a Malaysian public utility. *Management Accounting Research, 18*(2), 209-247.

O'Connell, B., Ciccotosto, S., & De Lange, P. (2009). Latour's contribution to the accounting literature through actor-network theory: a critical appraisal. *Proceedings of the 2009 AFAANZ Conference* (pp. 1-40). Adelaide, SA, Australia: James Cook University Australia.

Otley, D. T. (1980). The contingency theory of management accounting: achievement and prognosis. *5*(4), 413-428.

Puxty, A. G. (1993). *The Social and Organizational Context of Management Accounting.* Academic Press.

Rautiainen, A., & Scapens, R. W. (2013). Path-dependencies, constrained transformations and dynamic agency: an accounting case study informed by both ANT and NIS. *Qualitative Research in Accounting & Management, 10*(2), 100-126.

Ribeiro, J. A., & Scapens, R. W. (2006). Institutional theories in management accounting change: Contributions, issues and paths for development. *Qualitative Research in Accounting & Management, 3*(2), 94-111.

Robalo, R. (2014). Explanations for the gap between management accounting rules and routines: An institutional approach. *Revista de Contabilidad , 17*(1), 88-97.

Roberts, J. (2014). Testing the limits of structuration theory in accounting research. *Critical Perspectives on Accounting, 25*(2), 135-141.

Rocher, S. (2011). 'Re-Opening the Black Box': The Story of Implementing a Risk Analysis Method in a French Local Government. *Financial Accountability & Management, 27*(1), 63-82.

Sharma, U., Lawrence, S., & Lowe, A. (2014). Accountants as institutional entrepreneurs: changing routines in a telecommunications company. *Qualitative Research in Accounting & Management, 11*(3), 190-214.

Siti-Nabiha, A. K., & Scapens, R. W. (2005). Stability and change: an institutionalist study of management accounting change. *Accounting, Auditing & Accountability Journal, 18*(1), 44 - 73.

Siverbo, S. (2014). The Implementation and Use of Benchmarking in Local Government: A Case Study of the Translation of a Management Accounting Innovation. *Financial Accountability & Management, 30*(2), 121-149.

Skærbæk, P., & Tryggestad, K. (2010). The role of accounting devices in performing corporate strategy. *Accounting, Organization and Society, 35*, 108-124.

Tsamenyi, M., Cullen, J., & González González, J. M. (2006). Changes in accounting and financial information system in a Spanish electricity company: A new institutional theory analysis. *Management Accounting Research, 17*(4), 409-432.

Vinnari, E., & Skærbæk, P. (2014). The uncertainties of risk management: A field study on risk management internal audit practices in a Finnish municipality. *Accounting, Auditing & Accountability Journal, 27*(3), 489-526.

Wanderley, C. d., & Cullen, J. (2011). Management Accounting Research: Mainstream versus Alternative Approaches. *Contabilidade Vista & Revista*, *22*(4), 15-44.

Wanderley, C., & Cullen, J. (2013). Management accounting change: A review. *BASE – Revista de Administração e Contabilidade da Unisinos*, *10*(4), 294-307.

Waweru, N. M., Hoque, Z., & Uliana, E. (2004). Management accounting change in South Africa: case studies from retail services. *Accounting, Auditing & Accountability Journal*, *17*(5), 675-704.

Whittle, A., & Mueller, F. (2010). Strategy, enrolment and accounting: the politics of strategic ideas. *Accounting, Auditing & Accountability Journal*, *23*(5), 626-646.

Whittle, A., & Spicer, A. (2008). Is Actor Network Theory Critique? *Organization Studies* , *29*(4), 611-629.

Wickramasinghe, D., & Alawattage, C. (2007). *Management accounting change: approaches and perspectives.* Routledge.

Yazdifar, H., Zaman, M., Tsamenyi, M., & Askarany, D. (2008). Management accounting change in a subsidiary organisation. *Critical Perspectives on Accounting* , *19*(3), 404-430.

Youssef, M. A. (2013). Management accounting change in an Egyptian organization: an institutional analysis. *Journal of Accounting & Organizational Change, 9*(1), 50-73.

Zimmerman, J. L. (2005). *Accounting for Decision Making and Control* (5th ed.). New York: McGraw-Hill.