



Turun yliopisto
University of Turku

A DEAN, A SCHOLAR, A FRIEND

Texts in appreciation of Markus Granlund

Kari Lukka (ed.)



Turun yliopisto
University of Turku

A DEAN, A SCHOLAR, A FRIEND

Texts in appreciation of Markus Granlund

Kari Lukka (ed.)

University of Turku

Turku School of Economics

ISBN 978-952-249-512-9

ISSN 2342-4796

Painosalama Oy - Turku, Finland 2017

Preface

Markus Granlund is an almost staggeringly many-sided person. He is a prolific scholar of first class, the Dean of the Turku School of Economics, capturing and skilful teacher, a family man with four sons, a super-talented ice-hockey player and what not. Everything he does seems to happen with ease and calmness.

This is not because his work-life would be without challenges. These are not easy times to be a Dean at a Finnish university, but demanding and turbulent indeed. It seems to be a “new normal” that funding is a continuously bothering issue and so is indicating systematic high volume and quality performance, nowadays measured in numerous dimensions and in accelerating pace. As the Dean of TSE, Markus has not saved himself from super-committed work and putting himself fully at stake – and turned out to be a successful dean.

It is certainly of much help that Markus is a man who can find humour even in the toughest situations and conditions. This is a fabulous feature in anybody: sense of humour, especially warm irony, is an ice-breaker and relaxer for all. It is also almost impossible to pull his leg. He seems always ready to see directly behind such attempts and to me this is one aspect of his superb sense of humour. Working with him has never been only work, but always a lot of fun, too.

Markus is my closest colleague of all times. We started collaborating in the early 1990s, when we conducted a survey research on cost and management accounting practices in Finland. Soon thereafter we were jointly responsible for the scholarly program of the EAA Congress that was held in Turku in 1993 as members of the organizing committee. Oh boy that we had good times in doing that! Over the years, Markus and I have conducted several management accounting studies together, most of which leading to an international journal publication. Our collaboration has always taken place in the spirit of total quality in our work: to carry out each and every bit of the work processes so that quality is ensured right from the beginning.

This “total quality principle” was essential in the biggest joint project I have conducted with Markus. It was teaming up for running the editorial office of the *European Accounting Review* in 2000-2005 – Markus first as an Assistant Editor and soon an Associate Editor, splendidly supporting me as the Editor. There are no words to indicate how thankful I am for the highly professional scholarly and administrative support that Markus offered me during those hectic years, during which we so intensively worked for developing the journal towards being a more and more respected outlet for serious scholarly publications in accounting. We shared the same vision of making the journal globally known as *the* paradigmatically, methodologically and theoretically open-minded accounting journal. Our joint efforts also paid off: *European Accounting Review* has been an ISI indexed

journal now for more than ten years and it is ranked at level 3 in the ABS ranking (and Jufo 2 in Finland).

That said, journal and university rankings and league tables have never been the major driving force for Markus. Yet he knows we are in the world with others, so we cannot entirely omit rankings and that sort of things. But Markus is consistent in not allowing the “tail wag the dog” even in these times of publish or perish. He has systematically resisted the lures of letting the measures and proxies of academic performance take the primary role in academic work. Good scholarship is a central value for Markus, always over and above just looking great in terms of performance indicators.

It adds to the picture of many-sidedness of Markus that, in addition to being an Accounting Professor, he has also held a position as a Professor of Information Systems Science at TSE for some time. In fact, Markus is certainly one of the leading management accounting and information systems scholars in the world. Despite his being the Dean, he is an Associate Editor of *International Journal of Accounting Information Systems*. Along this line of thought, Markus has always been an extremely international scholar. He has, for instance, visited Copenhagen Business School and University of Technology Sydney for longer periods. He has collaborated with many scholars both nationally and internationally.

The works in this volume, which are prepared in the huge appreciation of Markus Granlund celebrating his 50th birthday, nicely echo the many-sidedness of the person they are written for. They form a collection of several kinds of texts: scholarly pieces, personal recollections and poems. All these works are clearly conducted with warm thoughts on Markus, a chap of great wit and charm. I wish to express my sincere thanks to all contributors to this volume, feeling assured that Markus will pretty curiously take a look at these works that are written for him with caring collegial and friendly appreciation. Special thanks are devoted to Karolina Laine, who has greatly helped me in the editorial work for this book.

We all wish Markus a happy birthday and many productive and joyful years to come.

Turku, 26 April 2017

Kari Lukka

Table of Contents

Preface	3
Turku in My Heart	7
Anders Aspling	
A Personal Reflection on Selected Works of Markus Granlund	9
David S. Bedford	
Perplex of Management Accounting and Information Systems	15
Jukka Heikkilä	
Executive Compensation: Theories, Their Applications and Consequences	25
Seppo Ikäheimo	
Institutional Perspectives on Management Accounting Change	37
Marko Järvenpää	
Our Journey in Academic Life – A Tribute to Markus	39
Teemu Malmi	
A Short History (and Critique) of Management Accounting Research Over the Past 40 Years (from a North American Perspective)	41
Kenneth A. Merchant	
Nordic Research on Management Accounting Change – Ten Years On	51
Sven Modell	
What Happens if We Substitute Causality with Preference?	89
Jan Mouritsen	
Academic Leadership — Getting Emotional	95
Niina Nummela	
Logistics Costs and Key Indicators of Finnish Companies	105
Lauri Ojala, Juuso Töyli, Harri Lorentz, Tomi Solakivi, Sini Laari, Jarmo Malmsten, Tuomas Kiiski, Ninni Lehtinen, Elina Ojala & Tuulia Kuusinen	
Turku School of Economics in a New Position	121
Paavo Okko	

Professor Markus Granlund – My Invaluable Guide on a Challenging Journey	125
Marika Parvinen	
The New Universities Act: From an Academic Community to an Entrepreneurial University	127
Pekka Pihlanto	
Extrapolating the Impact of Integrated Information Systems on University Management.....	139
Hannu Salmela	
Transparency of Sustainability Reporting: Listed State-Owned Enterprises vs. Non-State-Owned Enterprises	149
Hannu Schadéwitz & Markku Vieru	
Management Accounting Research – Key Untold Stories: A Congratulatory Limerick for Markus Granlund on His 50th Birthday.....	169
Jani Taipaleenmäki	
Towards Agile Management Accounting: A Research Note on Accounting Agility	175
Jani Taipaleenmäki	
Management Control System and Flexibility in Metal Engineering Context – A Case Study	205
Henri Teittinen, Marko Järvenpää & Jukka Pellinen	
Equity Premium in Finland.....	225
Mika Vaihekoski	
To The Land of Accounting.....	233
Juhani Vaivio	
Exploring the Effects of External Accounts.....	235
Eija Vinnari & Matias Laine	

Turku in My Heart

Anders Aspling

School of Economics and Management, Tongji University

In 1985/86 I met with a professor from Åbo Akademi. His name is Claes Gustafsson. It was my first real acquaintance with Turku and with the academic community, life and history of Turku. It was all very impressive, and for a young man it was extremely inspiring.

On May 23, 1986, Claes visited the Stockholm School of Economics and managed an event which for me still stands out as an amazing experience. His way of leading my dissertation was from my own perspective simply masterly. Thank you, again, Claes, for giving me such an experience - which meant and still means so much to me.

25 years later I had the honour and great pleasure of walking the same streets of Turku. The beautiful part of Turku where the academic sites are placed next to each other along the river and up the hill.

This time to meet with the dean of the Turku School of Economics (TSE) and the rector of the University of Turku.

TSE was now part of the university and challenges and new opportunities lay ahead.

After my introduction to the university and especially TSE, I accepted to take on the role as chairman of the newly installed international advisory board of TSE. With Markus Granlund as dean and his whole management team, department heads, faculty, staff and students it's been a great learning experience to follow the development of the school.

A highly relevant research agenda and comprehensive learning and training programs combined with community engagement and alignment with the needs of society at large paves way for the future.

Both Markus and I are hockey players and actively interested in sports, and with a board composed of the most qualified people I've seen on any school board, it's been a pleasure and very much rewarding to try and collectively support the school in its ambitions to keep a leading role in Finland and to strengthen its international reputation.

We all believe in focusing on what we're good at and making it excellent, and we believe in being true to the unique qualities given by the specific context of Turku, Finland, Scandinavia and the Baltic Rim.

Markus is ambitious and thorough. Qualities of high value. Ideas and creativity and innovations will always be measured with accuracy and wisdom when they are about to be decided and acted upon.

This gives the opportunity for the board to be bold in its discussions, advice and position; and it adds a foundation of security and trust to the work.

It will be exciting to follow TSE for the future. Turku is in my heart, and it is and will always be a joy to visit Turku and TSE - on this I am certain I can speak for the whole board. And, of course, I also can speak on behalf of myself and all board members when congratulating you on your 50th birthday.

Sincere and warm congratulations, Markus!

We look forward to follow you and TSE in the years to come and wish you all success.

AA, March 28, 2017

A Personal Reflection on Selected Works of Markus Granlund

David S. Bedford

University of Technology Sydney

Introduction

Just to the left of me sits a half full, translucent coffee mug, given to me by Markus Granlund at the end of a four week visit to TSE a few years ago. Etched onto the side of the mug are the letters *TSE*, and below that the phrase *for the future*. I rarely give much thought to what the words on a mug might mean, but this phrase seems rather evocative as I contemplate the moments that shaped my future as a young doctoral student. To commemorate the fiftieth birthday of Markus Granlund, I thought I would reflect upon how two of his articles affected the trajectory of my early research and how they continue to influence me today.

Change is not inevitable

In the article “*Towards explaining stability in and around management accounting systems*” (Granlund, 2001), Granlund explores the factors that inhibit changes to the method of product costing in a single firm despite the organisation facing significant pressures to do so. Granlund motivates the study by noting that although it is often observed that accounting systems are difficult to change, the forces that drive stability have been given far less attention by researchers than those that result in change. Granlund also takes issue with the rather simplistic reasoning that people resisting change are necessarily irrational when faced with seemingly logical reasons for change to be enacted. In the study Granlund provides a far more complex and nuanced understanding of the how the intertwining of economic, institutional and individual influences produces continuity of existing organisational structures and routines in a context in which economically rational actors should be inclined towards change.

I first read this article in the second year of my doctoral studies. The reason was purely out of curiosity. Markus was a visiting Professor at UTS, and I wanted to know more about his research and views of the world. I didn't think

that the article would have much relevance for my own studies. Yet it ended up influencing the direction of my doctoral research and the way I understand the social world of which I am a part of.

Two aspects of the article in particular impressed upon me. First, the article provides a counterpoint to the assumption of conventional contingency theory that organisations will attempt to adjust their structure when variations in contextual circumstances result in negative performance outcomes. I was already interested in the inertial tendencies of organisations – although my initial starting point was contingency theory, through the development of my doctoral proposal I drew more heavily on configuration theory, which predicts that organisations will tend to stabilise around a limited number of viable structural forms, and resist changes unless they severely threaten firm survival. Although configuration theory points to certain general factors that promote stable organisational structures and behaviours, these are not treated with any particular depth. Granlund's study was the first that I had read that gave significant attention to the reasons for why organisational structures and practices, such as forms of costing, might tend to remain stable over long periods of time. Granlund also describes how particular factors reinforce one another in generating sufficient resistance to prevent change from occurring.

Second, the study gave me an initial taste for structuration theory, which seemed to resonate with me despite my functionalist academic upbringing. One reason for this is, at least partially, Granlund's ability to articulate conceptually dense and complex ideas in an easily accessible manner, even for someone not at all versed in Giddens' work. In any case the ideas were enlightening. Granlund, citing Giddens, writes that for any social system to persist, actors must actively reproduce the social structures embedded within that system through ongoing actions and routines. Individuals do not just mechanically reproduce existing structures, but are reflexive and purposeful in their actions. Every action is therefore imbued with the potential for both continuity and change.

The idea that actors have significant agency is in contrast to the deterministic assumptions of conventional contingency theory. Granlund provides a particularly compelling example of the power of individual agency in describing how one financial controller (Kalle Jyry) had a telling influence in delaying and ultimately denying any proposal for change. While a casual observer might label Jyry's actions as illogical or emotionally charged, Granlund explains that Jyry's motives were many sided. Jyry had invested significant time in developing his own method of cost reporting, and saw potential changes to the costing system as both increasing his workload as well as a threat to the survival of his own innovation. He was also offended by not being invited to be part of the change management team. However, Jyry also had a rather sophisticated understanding

of ABC and was concerned about the feasibility of the system for the firm. This description also reveals that not all behaviours within organisations are based upon economic rationality, with multiple forms of rationality acting as the basis for individual actions.

I was never comfortable with the idea that the actions of an organisation are more or less predetermined by external contingencies, and Grandlund's article served to reinforce my views, and ultimately led to me reading a number of Giddens' works. Although I did not directly use structuration theory in my doctorate, Giddens' criticisms of functionalism, and his exploration of the role of individual agency in constituting and reproducing social structures, helped me to think about the place that agency could have within more functionalist frameworks. This led to my early interest in the general systems principle of equifinality, which suggests that organisations have a degree of choice in their behaviour even when confronted with pressures to maximise performance outcomes. Much of the work in the back-end of my doctorate was concerned with explicating how equifinality could be incorporated into a contingency framework for examining management control choices made by firms facing varying contextual circumstances. But most importantly, it shaped the way I view the social world. It gave me a renewed appreciation for the power of individual agency, the capacity to both generate change and enact resistance, and that even if the most constraining of situations we always have at least some degree of scope in choosing the actions that we take, which can have unintended and lasting consequences.

The purpose of management accounting research

There was a period of time, a few years after finishing my doctoral studies, where I questioned my future as an academic. I had finally published my first article (Bedford, 2015), and the feeling I remember was more relief than elation – the pressure to publish was diminished, at least for the time being! But what was troubling me was why I was doing research in the first place. A few months later I was cleaning out my office in preparation for moving into the newly constructed UTS Business School. Sorting through piles of printed articles that I had read during the course of my doctorate, I came across an early draft of the article "*In Search of Management Accounting Theory*" (Malmi & Grandlund, 2009), which I had proof read for Teemu Malmi when he was a visiting Professor at the School in 2005 (as I look at the acknowledgements now I see that Malmi forgot to mention my invaluable contribution!). It had been a while since I had read the published version, so I printed off a copy, which I read later that evening.

Malmi and Granlund argue that the primary reason for researching MA is to develop an understanding of its causes and consequences in order to benefit those that use MA in practice. In their view, however, MA researchers have largely failed to provide research outcomes that are meaningful for practitioners. The intent of the article is to provide potential avenues for MA researchers to generate theories that are ultimately useful for practitioners to create better MA practices. Malmi and Granlund direct their suggestions towards researchers that investigate regularities observable across organisations in a particular context, but are careful to note that other forms of inquiry are also valuable.

A critical point made by Malmi and Granlund is that theories used in MA literature are not unique to the field but are rather imported from other academic disciplines (e.g. economics, sociology, psychology). They note that while such theories do provide useful insights for MA researchers, they are essentially “theories *about* MA, not theories *of* MA” (p. 602). This point applies particularly to my own specialisation – contingency theory – which Malmi and Granlund are especially critical. While they endorse the general aim of developing context-dependent explanations of MA, they contend that the underlying findings of most contingency-based research in MA “are so general, and partly self-evident, that they are of little use, or of incremental value, in practice” (p. 603). Admittedly, I no longer entirely subscribe to this view. Numerous contingency studies empirically find variations in MA practices to be associated with performance outcomes, indicating that many firms have not selected optimal arrangements. This suggests that the results of such studies are likely to be of at least some benefit for practitioners interested in maximizing performance. But what stuck in my mind was their provocative statement that:

“If we are not willing to develop theories we borrow from elsewhere to better explain issues we are interested in, and if we are not prepared to assess the relative strengths and weaknesses of various theories, there is little hope for coming up with practice relevant MA theories.” (p. 604)

I remembered drawing on this claim to motivate my doctoral research, specifically to criticise existing contingency research in MA and argue for examining, and developing theory about, control configurations rather than studying control practices in isolation. But in the couple of years after completing my doctorate almost my entire work-life was focused towards getting published. Although I had started new research projects, I didn’t feel much excitement about them – they were more a means to an end. In reading Malmi and Granlund’s article again, I was reminded about why I do research and what I truly enjoy about it – developing new understandings of accounting and control that hopefully in some small way make a difference to others.

I share similar views to Malmi and Granlund in how researchers might proceed to develop theory and undertake research that has greater practical relevance. They provide three avenues. First, they make multiple suggestions on how to extend existing research approaches, such as thinking carefully about whether or not firms can be assumed to optimise in a particular context, and considering how different control practices relate to each other within the wider control package of a firm. Second, they encourage conducting interventionist research. Here the connection to practice is the most immediate as researchers influence directly the actions and decisions of practitioners. Third, they argue that normative theories of MA should be developed into more complete explanations for how and why MA is applied in practice. They provide a compelling example in describing the potential for constructing a theory of cost accounting. Building theories that are specific to the MA discipline would also help the community form an identity distinct from other organisational research fields. In effect Malmi and Granlund encourage the MA community to embrace its roots as an applied discipline and forge a closer link with practice.

I am perhaps a little more circumspect about the degree to which MA researchers will have significant and direct influences on the everyday work of practitioners. I see my influence as typically being more indirect, through teaching current and future practitioners. But I still subscribe to the main message of the article, that ultimately we should be attempting to build understandings and theories of MA that benefit those that we study to achieve certain objectives, and it remains one of my primary motivations for doing research.

Final thoughts

The two articles discussed have been particularly important works in shaping my thinking and motivations for conducting research. Markus' influence has, however, gone beyond just his publications. Markus was very supportive of my research during his time as a visiting Professor at UTS, when others around me were somewhat less so. Markus was also one of my doctorate examiners. His feedback provided much needed encouragement to persevere with my research when faced with critics fundamentally opposing what I was doing. And finally, I continue to learn from Markus as we work together on a project currently in progress. But perhaps what I have appreciated the most are my personal interactions with Markus, in which his dry sense of humour and turn of phrase have been a reliable source of amusement, and which I am sure will be for many years to come. Happy Birthday mate!

References

- Bedford, D. S. (2015) Management control systems across different modes of innovation: Implications for firm performance. *Management Accounting Research*, Vol. 28, 12–30.
- Granlund, M. (2001) Towards explaining stability in and around management accounting systems. *Management Accounting Research*, Vol. 12 (2), 141–166.
- Malmi, T. – Granlund, M. (2009) In search of management accounting theory. *European Accounting Review*, Vol. 18 (3), 597–620.

Perplex of Management Accounting and Information Systems

Jukka Heikkilä

Turku School of Economics, University of Turku

We information systems researchers want to always pin point the contribution of professor Markus Granlund's seminal research on management accounting and accounting IS. I'll not make an exception, but would like to also share my view on the recent development in providing information for management accounting, or control, from our recent experiences of abductive research on ISs on the field.

First, we IS-folks tend get our hands dirty with nursing and doctoring real-life information systems – there are always some complications, hick-ups, or breakdowns to be solved by combining theory and pragmatic IS-studies. In the old days (1990's), this was rather straightforward, because the contemporary process redesign problems were easy to fix when looked into from the actual work organization viewpoint. But in no time the demand for more strategic issues surfaced: ISs became the means to implement innovative business models, and we have found ourselves estimating different profit making constellations of global network partners, calculating product life-time costs and benefits for improving performance, and predicting monetizing and value creation options for digital customer offerings, profit sharing, etc.

Recently this has led to a growing number of IS research projects in enterprise architecting and business modelling across value creating networks. From the company point of view, the market has expanded and grown international with global competition. Innovation, agility and creativity have become major supplements to excellence in marketing, production, and distribution for born globals and incumbents alike. Similar trends are now hitting also domestic public sectors: EU's single market area guarantees the free movement of service providers and combined with recent liberalization of municipal and provincial services this boosts the need for public private partnerships.

These opening markets are increasing the importance of data and information systems dramatically, as the competitive position of companies and public sector has changed fundamentally: the previously dominant, close to monopolistic actors, cannot any longer set the prices as freely they were used to, but instead have to adjust to the market price, or specialize, innovate, and re-structure to

survive on the competitive market. In practice, we see this as cost-based budgeting losing ground in organizations – it is being replaced by activity-based costing and target costing as means for making sense of the operations and providing ‘facts’ of business in a meaningful way for managing organizations. Variations on demand and their effects on productivity must be analyzed quickly, decisions turned into action in short notice. For this purpose, alternative scenarios are needed increasing the need for predictions, forecasts, and what-if analyses.

So, our situation at IS has grown far more complex during recent years as the business has grown more international, networked and platform-based, notwithstanding the major changes in the public sector. However, some of this was foreseen by Granlund and his colleague at TSE, professor Hannu Salmela in their non-published article “*Extrapolating the Managerial Impact of Integrated Information Systems*” in 2001, where they list number of changes due to the integration activities with the help of innovations. The bad news is that the present is more complicated than their predictions (Ali-Yrkkö et al., 2011) – and the future will be even more so (Ali-Yrkkö & Rouvinen, 2013). Yet the good news is that constantly evolving technology, with services provided on platforms, can provide solutions, which tie management accounting to information systems tighter than ever.

What did change in data machine room?

Let us first start elaborating the landscape: Former straight-through-processing attempts in companies were built on streamlined collection of data from pre-planned, well-structured information systems connected to internal processes. More of this data is nowadays coming from automated, integrated processes of production, sales, and delivery, which are integrated with external systems of sub-contracted producers, e-commerce sites and third-party logistics with interfaces or adapters. Despite being well-structured, the formats vary, and require synchronization. The problem is that format, or timing, may change without notice, as the parties are independent legal entities. The volume of data keeps growing at exponential pace, an e-commerce site may handle tens of on-line transactions per second, in China even hundreds. In practice, digitalization has demanded substantial changes to the information systems architecture and consequently, on management accounting.

Earlier, the contemporary practice (and theory) for producing information for analysis and decision making was based on On-Line Analytical Processing (OLAP) database. The idea is to extract, transfer and load data (ETL) from operational databases to reporting databases (in data warehouse, data lake, or data

sink) for reporting and ‘drilling’ into data. This was done in order to isolate reporting queries from causing extra load to the operative transaction processing systems. Recently, vendors have added graphical-numerical dashboards on reporting the data at a glance. Collecting the data for reports and dashboards have grown complicated, as the transaction processing is distributed onto number of servers in ‘farms’ for the sake of performance, robustness, security, or regulation. This calls for careful governance of metadata to maintain the validity, integrity and relevance of coherent reporting to the organizations management information needs.

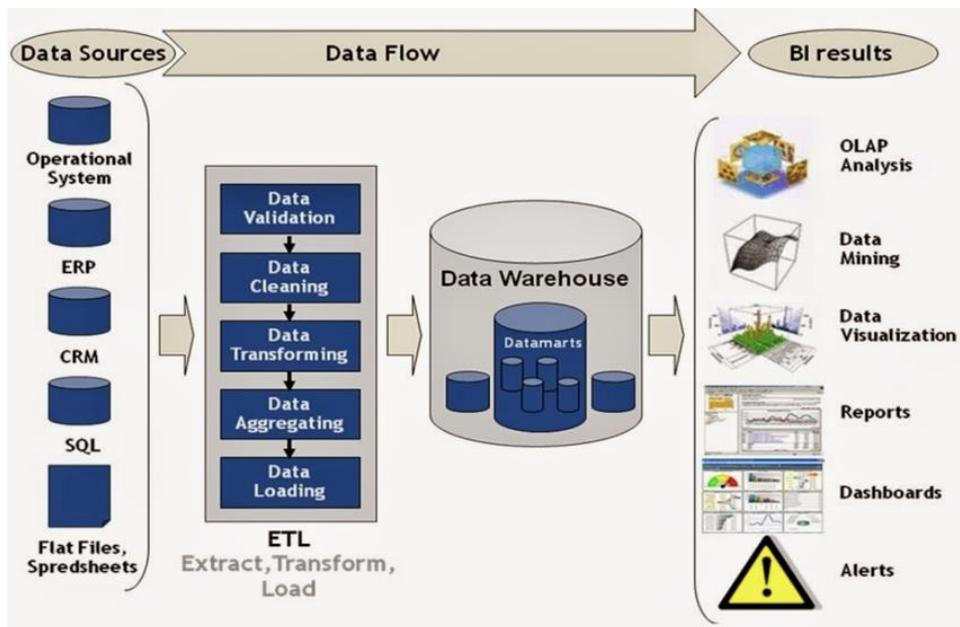


Figure 1 Well-structured data approach for managing organizations - transactions, ETL, DW, OLAP for BI (Informatica, 2014)

But the problem is growing worse: the data is increasingly collected not only from number of sources, but with growing variety in ill-structured formats.

This is depicted in Fig 2. below: The data flows in from sensors, web-shop forum discussions, and other networked partners in real time. So why to bear these complications? The fact is that this ill-structured information is considered most valuable for enhancing prediction capabilities and situation awareness of the company, and the prospects for business intelligence lies in the advances in automated big data analytics and artificial intelligence.

As the volume, variety and velocity of this information grows, we have two choices dealing with the situation: we either have to decide and plan, which information to keep, or which information to dispose, because preprocessing is

a burdensome task without automated cleansing and carefully analyzing the feedback to alter the governance of data (as suggested in Figure 2 below).

For data that we use directly on dashboards we have different techniques than for the data to move to OLAPs. These techniques require norms which come both from analytics or policies, or conventions of data use. Here I'd like to remind the consequences of changing the management accounting philosophy as an example: a move from cost-budgeting to target costing, or lean management accounting, needs changes both in the capabilities of people, governance and actual implementation of the information systems in relation to other systems.

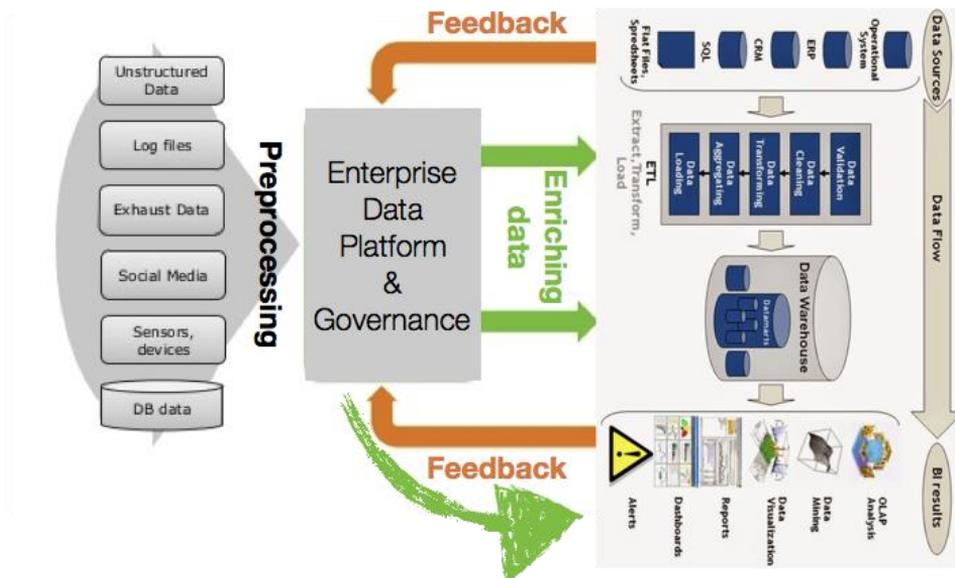


Figure 2 Data platform and reporting (adapted from Informatica, 2014; Hadoop, 2011)

To be more specific on the multi-format data, it means a variety of video, audio, texts and their combinations that may stay resident, or vanish. The latter originate increasingly from open data sources, or social media, and require sophisticated data acquisition cleansing and analysis methods. This is especially the case with real-time external information (the clumsy-looking green arrow at the bottom pointing to live events and BI-dashboards), which typically are referred to as increasing velocity of information accumulation from point-of-sales, sensors and variety of external on-line sources.

As the use of on-line systems for legally binding, non-repudiated transactions grows, it is crucial to authenticate persons, their eligibility, financial soundness, or authority from key master data repositories. A good example of the practical importance is shared guardianship of a child in the case of divorced

and remarried parents, who reside another municipality, province, or country, but representing the kid in request for services. How can the transacting parties' information systems identify the parties? Who is the true representative for the child, and where are the services needed in alternating weeks? How are these reported back correctly for managerial decision taking? These are complications stemming from the increased complexity of society, including business, which the information systems are expected to be able to track, and report back for managerial decision making. As Granlund et al., (2013) put it:

“This may be due to the fact that modern IT has to be mediated forcefully before it is transformed into modern M[anagement]C[ontrol]. It does not, for example, follow from adoption of integrated enterprise systems that firms adopt Activity-Based Costing, Balanced Scorecards, or other strategic accounting. IT and MC are more loosely coupled.”

So, what I suggest, is that the fields of management accounting and information systems should start a dialogue on the governance of the creation, transfer and management of data in the above depicted landscape. This is needed not only for management control purposes, but for facilitating more widespread use of data, where a good design is determined by the agility and responsiveness of the business. The dialogue could be structured based on the elements of data architecture and information governance. The two figures below (Cupola, 2014) are closely interrelated, and include a lot of points to agree upon the schools of thoughts in management accounting and information systems.



Figure 3 & 4 Governing networked, platform based data (Cupola et al., 2014; DLA Piper, 2017)

Data governance, i.e., evaluating, directing and monitoring management of data and the use of data and data-related resources, refers to the articulated, espoused policies and managerial activities of keeping the outer rim activities in sync. These activities are (adapted from Cupola, 2014 Data Management Body/Book of Knowledge, figure 3. on the left above):

- *Data Architecture* for well-structured data and other data-related resources as an element of Enterprise Architecture.
- *Data Modeling & Design* consisting of analysis, design, building, testing, of data and maintenance (Development part of the DEVOPs iterative & agile development and operations cycles)
- *Data Storage & Operations* for the deployment, operations, and management of physical data assets, managing operating (the OPs of DEVOPs).
- *Data Security* ensuring confidentiality and appropriate access to data.

- *Data Integration & Interoperability*: extraction, transformation, movement, delivery, replication, federation, virtualization and operational support and conformance to international/national/industry/corporate architectural requirements.
- *Documents & Content* are about storing, protecting, indexing, granting, and enabling access to data found in unstructured sources (both manual and digital) and making this data available for integration and interoperability with structured (database) data.
- *Reference & Master Data* means managing open and shared data repositories to reduce redundancy and ensure better data quality through standardized definition and use of data from authorized sources.
- *Data Warehousing & Business Intelligence* consists of managing OLAPs, and dashboards for reporting and analysis.
- *Metadata* collecting, categorizing, maintaining, integrating, controlling, managing, and delivering metadata of the whole data architecture.
- *Data Quality* requires defining, monitoring, maintaining data integrity, and data quality

The above list is devised in the era of well-structured data in intra-organizational business processes, mainly under the direct control of the organization, and is still the prevailing data management practice. However, nowadays much if not most, of the business-critical data hovers ‘in the cloud’, not in the basement. Figure 4. illustrates the actions for governors of data to take (above, on the right, adapted from DLA Piper, 2017), when the data is distributed and federated between parties:

- *Integrated privacy policies*. As the companies are acting as a network residing in multiple locations, all vested parties should commit to and implement privacy policies.
- *Security procedures* expand the Cupola et al., (2014) Data Security with the mechanisms of identifying breaches and providing audit-trail for forensics.
- *Data retention procedures* refer to declaration and protection of data ownership, and procedures to recover from data disasters and security breaches.
- *Data sharing/vendor agreements* is contracting and implementing the above three issues (e.g. with model contracts adjusted with corporate policy).
- *Intra group data transfers* has grown in importance, because of distributed computing, nomadic work and dynamic networks. Relevant data must be provided to multiple locations, devices and purposes.

- *Introducing DPO, Data Protection Officers and Privacy-by-design as guiding principle for reporting/drilling the data.* The New General Data Protection Regulation mandates these.
- *Routine audit, training and cultural awareness.*

The lists above are just the instant remedies to start with for urgent, practical challenges of providing necessary information for managing digitalizing companies (and public organizations). In information systems genre we see even more fundamental issues lurking around the corner to suggest more co-research with management accounting and accounting information systems, such as the consequences of encapsulating data and processes as on-demand micro-services and changing the dominant way of thinking from master data/golden records towards federated data models.

As Granlund et al., (2013) stated, many of the aspects above are interrelated, but not in sync without effort and the same applies to management accounting, accounting information systems and information systems science in general. I think it is time to unite: we IS researchers bring the dirt, you bring the soap.

References

- Ali-Yrkkö, J. – Rouvinen, P. (2013) Implications of Value Creation and Capture in Global Value Chains: Lessons from 39 grassroots cases. *ETLA Reports*, No 16. Available at: <<https://pub.etla.fi/ETLA-Raportit-Reports-16.pdf>>
- Ali-Yrkkö, J. – Rouvinen, P. – Seppälä, T. – Ylä-Anttila, P., (2011) Who Captures Value in Global Supply Chains? Case Nokia N95 Smartphone. *Journal of Industry, Competition and Trade*, Vol. 11 (3), 263–278.
- Cupola, P. – Earley, S. – Henderson, D. (2014) *DAMA-DMBOK2 Framework*. DAMA International.
- DLA Piper (2017) Information Governance Framework.
- Granlund, M. – Mouritsen, J. – Vaassen, E., (2013) On the relations between modern information technology, decision making and management control. *International Journal of Accounting Information Systems*, Vol. 14 (4), 275–277.
- Granlund, M. – Salmela, H. (2001). Extrapolating the Managerial Impact of Integrated Information Systems, unpublished manuscript.
- Informatica (2014). Available at:
<<http://informaticatuts.blogspot.fi/2014/07/etl-process-flow.html>>

Executive Compensation: Theories, Their Applications and Consequences

Seppo Ikäheimo

School of Business, Aalto University

Prologue

Executive compensation, so overwhelmingly rewarding the CEOs of listed firms with shares, options, more options, and even more options.

Money, money, money in the executive's world!

We have taught our B.Sc., M.Sc. and MBA students in accounting and finance classes – we need shares and options to assure success of firms – and they learn fast: money aligns the interests of shareholders and managers, the stronger the tie, the better. Only the sky is the limit! Correct?

Incorrect!! Even executives have limits, thanks to the burst of the New Economy Bubble and Subprime Mortgage Crisis, the executives' sky has got cloudy limits, and there ain't no rainmakers anymore for the CEOs. FAS123r and IFRS2 have enlightened shareholders about how expensive these shares and options really are, and Basel III with its excessive bureaucracy limits the pay structure in the finance industry and shareholders have a say over CEOs' pay. What a dramatic change – corporate boards comprised of entrenched CEOs are not alone in the world, sharing wealth with each other – they now have to consider public opinion, Thomas Piketty and salt-water economists saying CEOs are lazy, greedy and bad!

In Finland, are we immune to greedy, evil CEOs? Surely not if you believe in Helsingin Sanomat. Look at the top executives of Fortum in mid-2000s, and if you still believe in Helsingin Sanomat, even later, every single year, we have those underperforming CEOs with great rent extraction.

As politicians see a problem, which even they can solve, they solve it – with more regulation and even more regulation. Our Finnish state is an expert in this; 1994, 1998, 1999, 2000, 2004, 2006, 2007, 2009, 2012 and finally 2016, over and over again, new remuneration guidelines for state-owned firms, where new rules were just added to the list of old ones.

Just take a look at the new guideline issued in 2016. After so many rounds of guidelines, it should by now embody many wise thoughts and smart words for

promoting the success of state-owned firms. Words like *strategy*, *competitive advantage* and *motivation* should be frequently mentioned. Markus, use the “find” command and surprisingly you’ll come up with zero hits. This is a dimly small number for such important words, though politicians must be proud when saying that the word “reasonable” yields four hits. Less can be said for the success of firms. It is more important to say “no” to stock options. Politicians are serious, sadly serious when it comes to stock options.

Optionbusters

If there's too much money for the CEOs,
Who you gonna call? Politicians!
If there's a lot of options and it don't look good,
Who you gonna call? Politicians!

This poor remuneration guideline has totally overlooked the very essence of executive compensation – to improve the competitiveness of firms and promote the implementation of company and business strategy. The long list of unfortunate remuneration guidelines compiled by our beloved Finnish state are examples of the unintended consequences of executive compensation, as these executive compensations are perceived to have unwanted outcomes – too much for too few. Alas, for politicians, elimination of high compensation is more important than the economic success of their firms.

Public discussion and these guidelines have their own logic, which is **fully alienated** from the original purpose of executive compensation. How have we ended up in such a situation, where “toiset puhuvat aidasta ja toiset aidan seipäästä”.

Vicious circle

CEOs search for success,
They sacrifice their time and mind for profit
Success rewards, CEOs get their own pay

Politicians search for voters,
They sacrifice CEOs and their options for votes
Voters reward, politicians get their way

Voters search for politicians,
We sacrifice our votes and success for envy
We loose, we get what belong to the fools.

Markus, with the help of our dear friend Anthony Giddens and his excellent book “Consequences of Modernity”, we untangle the reasons and both intended and unintended consequences of executive compensation with some illustrative examples.

Episode 1: Current practices – A positive story

Theory

Take a look at the most powerful theory in the world, agency theory, dominating both theory development and the empirical research of executive compensation for the last forty years. What does agency theory assume about executives? The theory assumes them to be lazy, opportunistic, risk averse and sometimes incompetent.

The lazy agent

Lazy man, no time

Risk aversion, all is mine

Owners’ choice, should be fine

For the owners, this kind of executive is a problem, and agency theory helps us to understand both the nature of the problem and how to solve it. If owners do not do anything to protect themselves, executives will do what they want, and even after all possible measures have been taken to eliminate executives’ self-interest activities, owners cannot totally mitigate the misbehavior of executives. All these protective activities of the owners are costly; agency theory refers to these as the costs of monitoring and bonding, with the ultimate executive misbehavior leading to residual loss.

Our interest focuses on bonding. Owners can mitigate agency costs by establishing an appropriate bond between the owners’ and the executives’ interests. In the world of agency theory, this would mean money - appropriate incentive contracts. To align owners’ and executives’ interests, **pay should be performance-based**. For this purpose, the boards of directors (read as owners’ representatives) use **high-powered incentives, such as stock options**, to increase CEOs’ pay-for-performance sensitivity. This is especially important when the expected agency costs are high – business is complicated, information asymmetry between management and owners is high, and controlling activities are costly to organize.

We as academic teachers use this kind of agency theory **in our classrooms**, and some, even most of our students – bachelor’s, master’s or MBAs – adopt this propaganda as given and as the whole truth. After teaching agency theory for the last four decades, we academicians bare at least some responsibility for such extensive use of share-based compensation. In fact, we say normatively that it would be irresponsible for owners and the board not to use high-powered incentives for executive compensation.

The real writing on the wall

We just need some education

We just need some thought control

Bright sincerity in the classroom

Teachers let students learn to think

Hey teacher let students learn to think

All in all they see the real writing on the wall

Application

For those who learnt and believed in agency theory, it would be wrong not to adopt stock options for executive compensation purposes. You are a good owner and a member of the board of directors if you adopt stock options as an integral element of executive compensation. For sure, executives were not against having stock options.

Owners, boards and executives were not alone with their ideas of stock options. It is not very easy to construct a stock option system, thus help is needed, and for sure, help is available. Compensation consultants were ready to help owners, the board and executives to find a suitable package of stock options – amount, strike price, time to maturity, time to expiration and the executives who will get them.

Not surprisingly, stock options were first adopted in the US following the logic of agency theory, and later in Finland, becoming a common practice in listed firms in the late 90s. We had our own consultants for helping listed firms to implement these systems.

From the world view perspective provided by agency theory, the compensation consultants and members of the board of directors were doing a good job in adopting new instruments, stock options, which would align owners’ and executives’ interests, thereby increasing the competitiveness of their companies. Sounds like a happy end. Did it all happen like in Strömsö?

What a CEO's world

I see money so green, options so good
 Bringing some wealth for me and you
 And I think to myself what a CEO's world

I see skyrocketing shares and agents working hard
 The success blessed day, the owners' pay day
 And I think to myself what a CEO's world

The workers of the firms so happy they are
 Without options they are just doing so fine
 I see CEOs shaking hands saying how do you do
 They're really saying I love you

Consequences

The first round of stock options was adopted in Finland in the late 80s but only after the liberalization of foreign ownership. There was a major boom in stock options. Foreign investors were pushing Finnish firms to adopt them, and we wanted to please them, as well as to attract foreign money into capital-poor Finland.

At the beginning, we seemed to have adopted a new great tool for bring about business success: Raisio Yhtymä would be bringing a new innovation, stanoli esteri, a cholesterol reducing substance, into their products, and Nokia did likewise with the new rise of the Finnish high-tech industry and a fairy tale of mobile phones. Both firms were early adopters of stock options, and the outcome was excellent for the firms, society and executives.

Unfortunately, the second round of stock options did not have as happy an ending. The strong belief in getting rid of economic cycles in the new era of digitalization, led eventually to the burst in the new economy bubble, bringing in its aftermath a dramatic drop in stock prices. We asked ourselves, did executives really believe in what they were doing, and whether stock options would really bring business success and long lasting wealth to the society or only to the executives? Executives benefitted from the short run peaks in share price. We saw luck, deteriorating stock prices and abroad drastic manipulation of accounting figures. Were stock options and newly rich executives reason for boom and bust and was it fair that some executives got extremely rich while long-term investors lost their money?

Time horizon

Short long, short long

What is the time horizon

Manager and society in a great competition

For the manager, peaking share price leads to selling decision

For the society, the only valid is a long position

We got a tool, stock options, which surprisingly did not solve agency problems. Public opinion turned against stock options. They said, instead of bringing additional wealth to society, they just increased the prosperity of the rich and extended the wealth differences in society. Thus, it was fair to ask, what are the positive outcomes of stock options and who pays them? The stock option itself became a new agency problem.

Who pays stock options? This question was asked, as nobody saw such expenses in the income statement. We need more transparency, owners voiced, as they realized that they had paid the bill without properly understanding it. Politicians agreed. As a consequence, new accounting standards were introduced to increase transparency, in the US FAS123r and by IASB IFRS2. Thereafter, owners knew how much stock options would cost them, thus reducing drastically any interest in using them.

Out of owner's pocket

Out of mind, out of sight

In the books, how it looks?

Far too big, make owners sick

In Finland, there were very critical discussions in the press concerning stock options, as well as the increasing wealth differences within firms and society. For politicians, this was a very sensitive topic. As a consequence, the compensation guidelines for state-owned companies banned the use of stock options as an instrument for compensating their executives.

Due to public pressure, the board members of major listed firms **did not even dare** to issue new stock options, though they still perceived them as good solutions to solve agency problems.

What went wrong?

Episode 2: Provocation

Applications

Let's move back from the consequences to the applications.

Assuming that the simple agency theory is correct, we immediately find interesting evidence of how stock options have been adopted in Finland. We adopted them with the help of a copy paste function from the US. Thanks to the consultancy industry, the stock option contracts closely resembled those in the US. We did not properly understand the reasons for adopting options with specific features. These reasons included

- 1) The subscription price of stock options were set at the money. In the US, you did not have to report them as expenses in the financial statement if the options are priced at the money. In Finland, we did not have such a reason for at-the-money pricing.
- 2) The amount of stock options issued to executives was extensive. In the US, executives typically have a pension-based debt position in the company-specific pension fund. To encourage executives with this long-term debt to undertake risky activities, which would promote shareholders' interest, shareholders issued extensive stock option programs. In Finland, since executives do not have such a pension-based debt position in the firm, we did not have such a reason for issuing large amounts of stock options.

Help of consultants

Help, I need more money

Help, not just anybody

Help, you know I need more money, help

When I was on board, so much younger than today

I always needed help by Alexander Pay

But now these days are gone, I feel so f...ing good

Copy-paste yes it worked and options did good work

Thus, these properties were adopted in Finland for stock option programs, albeit without any real justification. No wonder we had a public outcry against stock options – Finnish firms and their shareholders tried to solve severe agency problems, which existed in the US but not in Finland.

Theory

Let's go back to the theory and ask, what is wrong with the agency theory?

First of all, I have to say, that agency theory is beautiful, I love and hate it at the same time.

Love: For the academic researcher, agency theory is an intellectually fascinating theory. You can construct and derive exact analytical models, adding new elements, studying new situations or instruments, and constructing controllable rigorous reality, which nicely fits to the positive worldview of most researchers. This analytical world helps you to create testable hypothesis and predictions, which are possible to test with large data sets of executive compensation and firm-specific variables. We love this kind of theory. It looks like science!

But the standard agency theory is also a very simplistic theory, which assumes that executives are effort and risk averse, executives' time preference follows exponential discount function, executives are solely motivated by the money, and that their effort and motivation increase monotonically with additional reward. In addition, standard agency theory is only a one-round game, where decisions and choices are made only once and ultimately there is only one outcome. Finally, agency theory is an analytical model, which explains the direct relationship between the reason and consequence, undercontextualizing firms, executives and their compensation.

Agency problem

I don't live twice

You should it memorize

Give me a financial incentive

That will be my only motive

I give you all, I leave behind

But I take it all, if you are too kind

Hate: We hate theories that do not properly explain reality, and it is therefore no surprise that standard agency theory is such a theory. It does not properly explain current practices and their outcomes. Variables based on agency theory frequently explain only 1 % or less of all the variation in a dependent variable. Natural scientist friends would laugh at us and our agency theory.

To conclude, we have a bad theory and bad applications. Should we become depressed? Quite contrary, especially as a researcher and even more as a consultant, this is good news. It would be easy for us to move forward – in principle.

Episode 3: Avenues to move forward

Theory advancements

A collection of assumptions is the key ingredient of every theory. In the agency theory, we apply assumptions, which are very feasible for deriving a hypothesis based on rational behavior, though they describe better the character of Mr. Spock, than that of a human being. Thus, we can apply more realistic assumptions, resulting in theoretical outcomes that would have more predictive power. Some work has already focused on the life time of an agent, the key assumptions of the agent character (Pepper and Gore) and the nature of the owner, business and corporate governance bundle.

First, **assuming more than one period of a lifetime**. In agency theory – based models, where executives live several rounds, fixed salary plays a more important role at the expense of stock options or other share-based systems. In contrast to those models in which the agent has only one period of life, a fixed salary would not have any role. Sounds like a major improvement.

Second, assuming that both **intrinsic and extrinsic** motivation as well as crowding out will take place at a certain compensation level, we naturally find out that it is not all about money – there is no linear relationship between motivation and the level of compensation. Extensive stock option plans for executives do not provide additional motivation. Due to crowding out, stock options lead to a contrary outcome: they lower executive motivation.

Third, assuming that executives are **loss averse** instead of risk averse when “earned” money is at stake, this would result in loss averse behavior if stock options are in or even deep in the money. Naturally, the opposite is the case with out-of-the-money options.

Fourth, assuming that an agent has a **hyperbolic discount rate** instead of an exponential discount function, lowering the value of long-term compensation would make a long-term contract less attractive, and if they were used, you would have to put a lot money on the table.

Fifth, assuming that executives are **inequity averse** would mean that executives as well as other employees want to have a fair share of their output as compensation. Having the right reference group matters, regardless of whether they are your peers, immediate subordinates or superiors. Inequity aversion leads to the need to have a similar level of compensation as others based upon a similar output. Thus, variation in the compensation systems of executives or employees should be somewhat similar in similar kinds of companies. Inequity

aversion works in both ways. If you earn too little, you feel undervalued. Similarly, if you earn too much, you do not feel that you have really earned that much compensation.

Agent revisited

An agent has qualities very normal

Searching for competence, belongingness and freedom

Taken good care by principal

Giving her motivation, encouragement and control

But it is not just executives, at whom we need to take a second look. We also need to redefine owners, firms and corporate governance.

First, **assuming that for different kinds of owners** with divergent goals and interests. Family firms have a long-term perspective with all eggs in the same basket, the state has a political interest based on a broader range of stakeholders, banks also have a stake in the form of loans. These owners are all very common around the world, even in the promised land of agency theory, the U.S., and these owners thus have very critical viewpoints on stock options.

Second, **assuming that different kinds of companies** will vary in terms of their resources, stage in the life cycle and their strategy. These contextual elements make companies look different as well as have divergent needs and opportunities for offering stock options to their executives.

Third, **assuming that corporate governance bundles** with complementarities and substitutions would mean that owners also have other means to control and assist executives in their work, not only compensation systems or stock options. Companies are surrounded by legislation and corporate governance codes, board of directors, disclosures and risk management, i.e. other institutions of corporate governance. Why would executives have the privilege of stock options, if a major owner can monitor executive behavior in the board of directors?

These advanced theories and approaches help us to better understand current executive compensation practices, including the use of stock options, and help us to develop even better executive compensation systems, in which stock options would most likely play some role even in the future.

Researcher's dilemma

Owners and bundles work together

This is the way things work for ever

But poor researchers do not recognize

They still live in their own paradise

What can we do to make things move
 Adopting new, removing old?
 Easy to say, difficult to hold!

Results look complex
 Editors have reflex

Send paper in, soon reject is out
 Researchers should have major doubt

Believing in theories fresh and good
 Should keep us in the perfect mood

Applications

We need to empirically evaluate how good compensation systems are and when they really work, for what kinds of firms and with what kinds of other institutions of corporate governance.

This understanding should then be used to educate compensation consultants, members in boards of directors and company executives and most of all our dear students. We should encourage our students to understand not just analytical means to deduce a perfect executive compensation solution for an unreal world in another galaxy, but also to make a more holistic, critical and professional perception of the role of executive compensation as one institution of corporate governance, and thus to develop better executive compensation practices.

For consultants, this would mean solutions that would avoid a “one size fits all” philosophy. In addition to developing a strong background in economics, finance or accounting, we need to instill a broader perspective to aid our students in understanding the motivation structure of executives. Not an easy task, but nevertheless plausible.

Where did we begin this story? From the fully alienated discussion on stock options and executive compensation. Thus, **the currently miss-specified agency theory and bad adoption of it have led the public discussion astray**, focusing solely on fairness and a reasonable but competitive level of compensation instead of a strategy and its implementation or firm success.

Unfortunately, the outcome of executive compensation from the performance perspective is rather sad, and has hardly had any positive effect on performance. But this could also be the outcome of miss-specified and misleading theories as well as bad adoption of these theories. In fact, it would have been a miracle if

compensation systems constructed accordingly would lead to any positive outcomes. The public outcry is well deserved!

Any changes to control this juggernaut?

We should dream about a change in the public discussion, i.e. how we talk about executive compensation. Instead of talking about a reasonable level of compensation, we should talk about how executive compensation has become a **competitive advantage for Finnish companies**.

Further, instead of discussing the elements of compensation systems, which of these should be allowed or restricted, we should talk about how compensation systems assist in **strategy implementation** as a crucial element of a corporate governance bundle and management control package.

There is probably still some hope for the future, even though there is a major seed of truth in agency theory.

This remains to be seen, Markus!

From misery to victory

Miss-specified theory

Mistake to apply

Missing public outcry

Building new theories

Helping boards with incentives

Aligning them with strategies

Giving them for consultation

Creating better compensation

Including stronger motivation

Meeting public opinion

Markus, this is our mission!

Institutional Perspectives on Management Accounting Change

Marko Järvenpää

School of Business and Economics, University of Jyväskylä

Please, count me in
I'm counting on
Accounting
Until I'm counted out

It's not personal
Business as usual
Just institutional
Perspectives on Management Accounting Change

Our Journey in Academic Life

A Tribute to Markus

Teemu Malmi

School of Business, Aalto University

Dear Markus,

In order to celebrate your 50th birthday, I wrote a few Haikus about our journey in academic life. They are in chronological order, to an extent possible. I hope they are quicker to read than an average accounting article. Regarding the magnitude of food for thought, or enjoyment, I leave it for you to judge.

Young Markus turned
a blind eye to plagiarism
Allowing for friendship

Exodus to IT
What on earth got you there
Home sweet home

Cadillac and gym
Mountains in Phoenix so beautiful
Friend, learning accounting?

Blue sky, lush forest
Waking to Sound of Kookaburra
Choice rational?

Days at conference
Evenings few beers with mates
Home it's called work

Why study accounting
Who benefits, when and how
Obvious, isn't it?

There is an argument
On the other hand, says he
True scholar at work

Turning upside down
With his funny Turku dialect
Entertainer by virtue

University administration
Is that why we came here for?
Why are the best on duty?

Jogging and laughing
Avoid those to die young my friend
Share a run with me?

Congratulations and cheers,
Teemu

A Short History (and Critique) of Management Accounting Research Over the Past 40 Years (from a North American Perspective)

*This paper was written in honor of Markus Granlund
on the occasion of his 50th birthday.*

Kenneth A. Merchant

University of Southern California

Introduction

I have been a professor and active researcher in the management accounting field for 39 years. When doing my research over those years, like the proverbial frog in the pot of water that is gradually getting hotter, I really didn't notice much change. I just got involved in one project after another. But when sitting back and reflecting about what is different now vs. 40 years ago, it is easy to discern that dramatic changes have taken place.

Methods and topics

Certainly the predominance of particular research methods has changed. Back in the 1960s and earlier, field research was the dominant form of research. Many research-oriented academics stayed in touch with practice, some through consulting or even temporary work assignments, and others through active involvement in professional associations. They then reflected on what they observed. Bob Anthony (Harvard) was a good example of this kind of academic. Bob worked for a time as Under Secretary of Defense (Comptroller) in the U.S. Defense Department. He did not publish any papers with mathematical notation, but he published theoretical work on a wide variety of topics, including management accounting, management control systems, and accounting in not-for-profit organizations. He wrote books; 27 of them! His 1965 book *Planning and Control Systems: A Framework for Analysis* is still regarded as a seminal work in this field.

When I entered the academy (1978), empirical research in management accounting was in its infancy. The seminal article by Ball and Brown, published in

1968, led to major changes in methods of doing financial accounting research on archival data sets. Similar effects on management accounting research lagged a bit. Among the early research that influenced my dissertation focused on budgeting were Bruns and Waterhouse (1975) and Swieringa and Moncur (1975). These works would not stand up to the academic reviewers of the 21st century, but back then much of what researchers were doing was trying to figure out what variables were important and then how to measure them.

Survey research was popular in management accounting in the 1980s and 1990s. It provided a good way to build databases descriptive of real world practices that were large enough to detect the statistical significance of findings. But that method gradually fell out of favor, due mostly to concerns about the validity of measures and common method biases. The survey method has had a slight resurgence in recent years, but it has not regained the prominence it had 30 years ago.

I also observed firsthand some research topic dead ends. In the exploratory budgeting research, for example, budgetary participation always appeared in the factor analyses and principal components analyses as among the variables that “explained the most variance” in budgeting practices. However, the many, many studies that followed trying to figure out the antecedents and consequences of budgetary participation did not yield many insights. That variable is embedded deeply in firms’ practices, but it is not an explicit management decision variable, and it is related in complex ways to many other variables. The two-way interactions (i.e., participation x something affecting an outcome variable) were not stable. Many three-way interactions, created by adding another moderating variable, were found to be statistically significant but also unstable across settings. The findings were impossible to understand, and they did not aggregate. Eventually the focus on budgetary participation died out.

In recent years, to get published in one of the major North American accounting academic journals, at least, the papers have to look very traditional. It is almost necessary to start with a theory, have an empirical method that stands up to close scrutiny, and have statistically significant findings that support the theory. However, it is difficult to obtain data in many areas in which we would like to do research. Data regarding costs and personnel evaluations, for example, are sensitive, and many companies do not want to share them. In addition, in many organizations the ranks of the finance organizations, have been thinned, so it is more difficult to get access to the key people in the organization.

These data challenges have had major impacts on the types of management accounting research being done. Empirically-oriented management accounting researchers have understandably focused their research in areas where they can get data. Just as a prominent example, new required disclosures about the compensation packages of the top-five executives in firms whose shares are publicly traded have led to the creation of new databases (e.g., ISS’s Incentive Lab) which, in turn,

has led to tremendous growth in research focused on top management compensation.

I would argue that there has actually been too much growth in this executive compensation area. We have learned a lot about how compensation packages are designed for these few people at the top of their organizations. But, because we do not have much access to the decision makers, such as board compensation (remuneration) committees, we have not learned much about the “why” or “how” questions; that is, why the compensation packages were designed as they were or how the design processes unfolded. And in the meantime, of course, with all of this research talent focused on this one topic, many other worthwhile research issues are being ignored. These issues even include the design of compensation packages for people lower in the organization, which are quite different.

The other major trend in management accounting research is the move to experimental research. My casual observation is that in recent years perhaps as many as two-thirds of the students attending management accounting doctoral consortia in the United States are focusing their research on the experimental method. Experiments are certainly a valid research method. They allow for tight controls that help ensure that the findings are caused by the few manipulations being made by the researcher. However, in another sense, the trend toward experiments is a retreat from reality. Will those experimental findings hold in the real world? In many cases, the answer is probably no. Paying subjects \$12, rather than the guaranteed \$8.00, for their good performance in an experiment task of an hour or so, does not provide the same risk and motivation faced by someone in the real world whose ability to pay their monthly rent is in doubt. I would trust the experimental findings more if someone could find similar results in some real world settings. But few attempts are made to replicate the experimental findings in the real world.

Experiments aside, probably the #1 skill for an empirically-oriented management accounting researcher to have in today’s world is in getting access to data that no one else has. Having access to proprietary data is like a goldmine; it can be mined at the researcher’s own pace, with little concern about getting “scooped.” Most management accounting research topics have proven to be timeless, unlike those in some other accounting-related fields, such as information technology. But seemingly few management accounting researchers have the contacts and skills needed to develop good sources of real world data.

Contributions made

Where has our research over the past 40 years gotten us? I think it has yielded quite a few “micro” findings. We know, for example, that

- Some costs are “sticky”;

- All performance measures that are “informative” should be used in evaluations, unless their use costs too much;
- Incentive systems are used for multiple purposes, including motivation, attraction and retention;
- Budgeting systems are used for multiple purposes, including planning, resource allocation, and personnel evaluation;
- Most budget targets are set to be relatively highly achievable;
- Relative performance evaluation has some significant advantages if it can be used (but most firms cannot find a suitable peer group for comparisons);
- and so on.

All of these findings are derived from an understanding of how actual practice works. We academics have figured out how to measure the relevant variables and to show the relationships between and among them. In doing so, we have added empirical findings to the scientific knowledge base. But smart practitioners probably already knew, either explicitly or implicitly, what we have documented.

What have we academics contributed that is really new? How have we contributed to the advancement of leading edge practice? Some might argue that contracting theory, which was recently deemed worthy of a Nobel Prize, and agency theory can make this claim. I am skeptical. I have never heard a practitioner marvel at the value of insights of works written by information economics academics. Agency theory added some new jargon, such as agent and principal, decision rights, adverse selection, and moral hazard, to our vocabulary, and it focused some attention on some important variables, such as information asymmetry and relative risk aversion. But again, I don't think this line of research has influenced practice much.

My point is that with perhaps with only rare exceptions, management accounting practice is ahead of academic theory. This conclusion should not be surprising. There are many more practitioners than there are academics; the smartest practitioners are probably at least as smart as the smartest academics; the stakes are higher for the practitioners; the practitioners are more in touch with the situations in all their complexity about which decisions have to be made; and they can devote more resources to the solution of their problems. If there are innovations to be made, the practitioners are in a better position to make them.

Academics' and practitioners' objectives are also different. Academics are interested in making broad, general statements, such as “the correlation between variable x and variable y is .23, and that is statistically different from zero with a probability of less than .001.” If there is no statistical significance, then the evidence is written off as merely “anecdotal,” and/or the rigor of the research method is called into question. On the other hand, practitioners want to know what works best in companies facing situations quite similar to theirs, and there might be only three such companies in the world. It is easy to see why the practitioners are not

particularly concerned with statistical significance, if they are concerned with it at all.

A usefulness hierarchy of research contributions

So what can we learn from this quick look back at history? What should we management accounting academic researchers be doing? I propose to provide an answer to this question by presenting a hierarchy of types of research ordered in terms of usefulness. What makes research useful? The academic journals' definitions of usefulness revolves exclusively around contributions to theory. If the findings are deemed to be valid, if they contribute to theory, and if the topic of the paper fits the journal's mission, then the only remaining debate is regarding whether the contributions to theory are of a sufficient magnitude to warrant publication in the journal. But management accounting is an applied discipline. It should be helping practitioners to solve their problems. Journals seemingly do not care about that.

I will propose a five-tiered hierarchy of research usefulness as it applies to management accounting research which, I propose, should be considered more by academic journal editors. I will start at the bottom, by describing the least useful contribution we can make with our management accounting research.

5. Replications

Perhaps the least useful type of research that can still be considered to make a research contribution is a pure replication of prior findings. Replications do provide a contribution because if the prior findings are supported, we can now be more sure that they are valid. However, we really do not learn anything new. Since it is generally recognized that pure replications do not much of a contribution, few academic journals will publish them.

4. Quantifications of the Obvious

Slightly better on the usefulness hierarchy are studies that quantify the obvious. They are studying relationships that are widely believed to exist, but those relationships have not been demonstrated empirically. A theory, often derived from not much more than common sense, is presented and, not surprisingly if the paper was published, the data support the findings. Often these studies conclude simply that a given theory (e.g., prospect theory, cognitive dissonance theory, institutional theory) describes the phenomena well. These types of papers are common, and almost all of the papers of this type published in the major North American journals prove their point with impressive statistical significance.

I do not rank these studies as very useful because we do not actually learn anything from these papers; they do not change our prior beliefs. We might have more confidence that our beliefs were correct, but if we were already confident, then

almost nothing is changed. A good example is the now long line of research focused on earnings management. Many papers published in the last 30 years have demonstrated that managers manage earnings in many, many ways. But we knew that even before the first of these papers, using increasingly sophisticated statistical analyses, was published.

3. Theory Refinements

Most of the best of our academic research provides some refinement of theory. One common approach is to test an existing theory in a different setting. If some of the findings are surprising, then the researcher can propose modifications to the theory, perhaps by adding a new mediating or moderating variable. Because the findings are not mere quantifications of what we already knew, we learn from these studies. They are useful.

2. New Theory

Much more rare are studies that contribute new theory to the literature. The best of these studies find, document and explain leading-edge practice. These new ideas are introduced to the research literature, when they can be refined over time by other researchers. They can also be presented to practitioners whose firms are not on the cutting edge of practice and to students who will learn from the descriptions presented in textbooks.

Over the past 39 (or so) years, how many examples of these types of useful contributions can be cited? Not very many. I think there are only two, or maybe three, major breakthroughs in management accounting theory in this period. One is the development and refinement of activity-based costing theory. Academic researchers pointed out the inadequacy of the methods being used to assign indirect costs to cost objects, including products, services, and customers. Probably misled by financial accounting rules, most companies used overly simplistic methods of assigning the indirect costs because financial accounting rules allow almost any rational system of assignment without concern for the accuracy of the cost data at the individual product (or service) level. Further, financial accounting rules are not at all concerned about assignments of costs such as R&D and selling and general expenses, which are below the gross margin line. Bob Kaplan and his colleagues showed the flaws in the systems that virtually all companies were using and the fix, which they called “activity-based costing.” When they observed that companies were having trouble developing and maintaining the ABC systems, which could quickly get quite complex, they developed a simpler alternative, called time-driven ABC. This line of research unquestionably has had a major impact on practice.

I think the second area of management accounting research that can claim a significant impact on practice is that focused on stylized combinations of performance measures, the most famous of which is the Balanced Scorecard. Again these

developments were mostly driven by Bob Kaplan, with a different set of colleagues. While he was interacting intensively with practitioners, he discovered a company doing some innovative things. His research process was first to first document and explain the innovation, and then to improve it and spread the practice. And finally, Kaplan and his collaborators communicated extensively and effectively both to practitioners and academics. These two innovations are now used in some form in most companies, and the topics are core elements of all management accounting textbooks and courses.

Perhaps a third important theoretical development is the field of study known as Beyond Budgeting. This field of study evolved from the practices of a few innovative firms, perhaps most notably Handlesbanken in Sweden. The study of Beyond Budgeting is still at an early stage of inquiry, and it might yet prove to be applicable to just a few corporations in the world, those that wish to implement this form of radical decentralization and its accompanying set of techniques. But it, or some portion of the bundle of techniques known collectively as Beyond Budgeting, might yet be explained as a technique that should have broad applicability. That is still an open research question.

1. Advancement of the State-of-the-art

Finally, ideally academics should be able to advance the state-of-the-art on their own, without learning the ideas from practitioners. These advancements would include the creation of new theory at the same time they solve real world problems. Such contributions happen in many fields, as many new technologies and drugs are developed by university professors. Some business interest areas can point to similar successes. In finance, for example, the development of the capital asset pricing model and the Black-Scholes option pricing model have had significant impacts on finance practice.

But management accounting has none of these types of successes to point to. I made this point in a talk given at an American Accounting Association annual meeting some years ago. One older professor came up to see me at the end of talk. He objected to my conclusion. So I challenged him to give me some examples of practice breakthroughs originating in the academy. The only example he could think of was the reciprocal cost allocation method. This method uses systems of simultaneous equations to give full recognition of the contributions of services provided to and from interdependent departments in an organization. It is true that this method is an improvement over the step-down cost allocation method used in many organizations. It is also probable that this method was developed by an academic, although from a quick literature search I was unable to determine just whom that might have been. I was unable to find any writings in the past 30 years that provided any attribution to the developer. Importantly, however, this development has proven over the years not to be very important. This method is rarely used in

practice, apparently because it is too difficult to develop the systems of simultaneous equations.

Conclusion

So where do all these ruminations leave us? Certainly we management accountants should not abandon all hope of making a significant, useful advancement of the state-of-the-art. Maybe some academics will have some useful creative leaps. More realistically, however, our best chances for making useful contributions to both the academic and practice worlds will come from our staying intimately familiar with practice, particularly leading-edge practice. Most of us should be to trying to find leading edge practice, understand it, explain it, test its applicability, improve it if possible, and then spread the word, to the research community, to practitioners not on the leading edge, and to our students.

As a final thought, I want to acknowledge that Markus Granlund has done in his career what I think many more management accounting researchers should be doing. He has engaged actively with practitioners as both a consultant and researcher. He has studied unsolved problems. He has not shied away from intensive, small sample studies of practice. He has refined existing theories in multiple fields. And he has written critically about the world of academia. Well done, Markus. Happy birthday on this age milestone that you have achieved. And best wishes for many more happy and productive years!

References

- Anthony, R.N. (1965) *Planning and Control Systems: A Framework for Analysis*. Boston: Division of Research, Harvard Business School.
- Ball, R. – Brown, P. (1968) An empirical examination of accounting income numbers. *Journal of Accounting Research*, 6 (2), 159–178.
- Bruns, Jr., W.J. – Waterhouse, J.H. (1975) Budgetary control and organization structure. *Journal of Accounting Research*, Vol. 13 (2), 177–203.
- Swieringa, R. – Moncur, R.H. (1975) *Some effects of participative budgeting on managerial behavior*. New York: National Association of Accountants.

Nordic Research on Management Accounting Change – Ten Years On

Sven Modell

Alliance Manchester Business School, University of Manchester

Introduction

The issue of management accounting change has attracted significant attention in the accounting research literature over the past three decades. Empirical research on this topic now constitutes a very substantial literature informed by a broad range of theories and research approaches (see Burns & Vaivio, 2001; Busco et al., 2007a; Modell, 2007). A little over a decade ago, Markus and I reviewed the contributions to this literature emerging from the Nordic countries and discussed the issue of whether a distinct, Nordic research tradition could be identified (Granlund & Modell, 2005). As we celebrate Markus's 50th birthday, I cannot think of a better opportunity to update this review and explore how Nordic research on management accounting change has continued to evolve over the past decade.

In our original review, Markus and I were interested in examining the theories and research approaches used to investigate management accounting change and the substantive contributions emerging from various strands of research on this topic. We defined the notion of management accounting change broadly and included studies examining the diffusion of novel management accounting techniques as well as studies exploring the broader organisational processes involved in implementing such techniques and changing management accounting practices. We also extended the scope of the analysis across a broad range of societal sectors and industries. Similar, but more narrowly focused, attempts to identify a Nordic tradition in management accounting research and practice have subsequently been made by other accounting scholars (Johnsen & Vakkuri, 2006; Näsi & Rohde, 2007).

In the present chapter, I will extend this line of inquiry to assess whether there is some continuity in the kinds of research themes pursued and in the theories and research methods employed in Nordic research on management accounting change. I also examine whether new research trends are emerging and how these trends compare with broader, international developments in research on management accounting change. I start by presenting the analytical framework and procedures which guide the review. I then apply this framework in analysing the studies

under review and discuss the patterns in the theories and research methods employed, the main types of change observed and the substantive contributions emerging from different strands of research. Thereafter, I reflect on these patterns and discuss the issue of whether a distinct, Nordic tradition in research on management accounting change is still discernible before offering some brief concluding remarks.

Analytical framework and procedures

Given the ambition to extend Granlund and Modell's (2005) analysis over time, I apply an analytical framework which is largely identical to theirs. The chief concern of Granlund and Modell (2005) was to examine the main research themes of interest to researchers and the implications of the adoption of different theories and research methods for our understanding of management accounting change. In their analysis of the choice of research themes and theories, they can be said to have taken an interest in the domain theories as well as the method theories employed (cf. Lukka, 2005; Lukka & Vinnari, 2014). The substantive research themes correspond to the use of domain theories, or the distinct sets of knowledge which are specific to the domain of accounting. By contrast, method theories are the sets of more general knowledge, which are borrowed from other disciplinary areas, such as economics, psychology and sociology, to shed light on particular accounting issues. In the present analysis, I discuss both types of theories and examine the relationship between the choice of theories and the nature of management accounting change. Similar to Granlund and Modell (2005), I also distinguish between a range of methodological aspect, such as the data sources used, whether the studies have a retrospective or real-time orientation, the depth in which the process of change is being examined and the breadth of data collection.

In terms of the nature of change, Granlund and Modell (2005) built on Burns and Scapens (2000) and distinguished between three distinct dimensions of management accounting change; the extent to which change processes are characterised by formal or informal change, whether change is of an evolutionary or revolutionary nature and whether the outcomes of change are of a progressive or regressive nature. Formal change refers to conscious, directed and easily observable change initiatives, which are often initiated by senior management, whilst informal change denotes the more subtle, tacit and spontaneous change processes which can emerge in organisations. Evolutionary change displays a high degree of continuity and unfolds in an incremental manner without seriously disrupting existing rules and routines, whilst revolutionary change is more discontinuous and entails fundamental transformations of the social fabric of organisations. Finally, progressive change refers to outcomes which are of a mainly benign nature and which largely

fulfils the objectives which guide change initiatives, whilst regressive change has more unintended and often detrimental effects on organisational practices. Similar to Burns and Scapens (2000), Granlund and Modell (2005) emphasised that the three dichotomies should be seen as end-points of a continuum and that the same change process can involve a blend of formal/informal, evolutionary/revolutionary as well as progressive/regressive change as it unfolds over time.

The analytical procedures are also similar to those employed by Granlund and Modell (2005). The literature review is confined to empirical research papers published in a number of well-regarded academic journals between 2006 and 2016.¹ To crystallize the Nordic dimension of the review, the papers had to be written by at least one author of Nordic origin and/or working at an academic institution in one of the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) *and* to be based on data predominantly collected in one or more of those countries, to qualify for inclusion.² Consistent with Granlund and Modell (2005), I included studies examining the diffusion of novel management accounting techniques as well as studies exploring the broader organisational processes involved in implementing such techniques and changing management accounting practices. Overall, the literature search generated 55 papers which were deemed relevant for inclusion in the review. This is a significant increase (67 per cent) compared to the preceding ten-year period (1996-2005) during which 33 papers were identified (see Granlund & Modell, 2005). The analysis of the full set of papers is summarised in the Appendix.

My review unfolds a relatively diverse literature targeting a broad range of research topics. Several papers have explored changes in relation to issues such as budgeting, costing and performance measurement and management, which have long been of central concern to management accounting scholars. But there is also a growing body of research exploring emerging accounting practices and research topics such as “beyond budgeting”, enterprise resource planning, inter-organisational accounting and control, risk management and the changing professional roles of management accountants. The papers are relatively evenly distributed over time, which suggests that the topic of management accounting change continues to generate a steady stream of empirical research in the Nordic countries. However, in terms of geographical distribution, the papers are quite heavily skewed towards Finland and Sweden. Empirical research on management accounting change in

¹ The journals are the same as those reviewed by Granlund and Modell (2005) and include Accounting, Auditing and Accountability Journal, Accounting, Organizations and Society, Critical Perspectives on Accounting, European Accounting Review, Financial Accountability and Management and Management Accounting Research.

² These criteria are similar to those used by Lukka and Kasanen (1996) to identify “local” as opposed to “global” research traditions in accounting.

these countries seems to have continued to flourish, whilst similar research in Denmark and Norway is being conducted by a relatively small number of accounting scholars. Over the past decade, a new generation of researchers has also emerged and made important contributions to Nordic research on management accounting change. Some established researchers, such as Johnny Lind, Kari Lukka, Sven Modell and Jan Mouritsen, have continued to be reasonably prolific. However, several new scholars, who were not represented in Granlund and Modell's (2005) review, have also started to make a notable imprint on the literature on management accounting change. Among the most widely published researchers, with three or more papers to their name, are Martin Carlsson-Wall, Hans Englund, Jonas Gerdin, Timo Hyvönen, Janne Järvinen, Katarina Kaarbøe (previously Östergren), Gustaf Kastberg, Kalle Kraus, Jukka Pellinen, Sven Siverbo, Torkel Strömsten and Sof Thrane. Several of these scholars have formed distinct research groups, producing a sustained amount of research outputs, which perhaps reflects the growing tendency for accounting researchers to collaborate rather than working independently (see Tucker et al., 2016). Compared to Granlund and Modell's (2005) review, there are also a growing, but relatively small, number of papers which are co-authored by at least one non-Nordic researcher (Modell et al., 2007; Wiesel et al., 2011; Jordan et al., 2013; Carlsson-Wall et al., 2016a).

Literature review

In the following section, I review the development of research on management accounting change on a country-by-country basis to ascertain whether there are country-specific research patterns. I also examine whether there is a degree of continuity in national research traditions or whether new research themes, theories and research approaches are emerging. This serves as a basis for discussing the issue of whether it is possible to identify a distinct, Nordic research tradition on management accounting change in the penultimate section.

Denmark

Similar to research evolving over the preceding decade, Danish research on management accounting change has continued to be dominated by a small group of scholars based at Copenhagen Business School. An important research theme has been the evolution of inter-organisational accounting practices and how such practices become implicated in coordinating complex networks of organisations (Mouritsen & Thrane, 2006; Thrane & Hald, 2006; Thrane, 2007). Studies have also been conducted into accounting and innovation management (Mouritsen et

al., 2009) and strategic management accounting (Skærbæk & Tryggestad, 2010). By way of method theory, this research is dominated by actor-network theory, which has long had a firmly established position at the academic institution where these researchers are based, but which has also emerged as one of the primary theoretical approaches for examining management accounting change outside the Nordic countries (see Justesen & Mouritsen, 2011; Lukka & Vinnari, 2014). Following the tenets of actor-network theory, Danish accounting researchers have produced multifaceted, process-orientated accounts of how management accounting becomes implicated in serendipitous processes of change and have shown how accounting practices play an important performative role as a non-human actor. However, with the exception of Skærbæk and Tryggestad (2010), the main emphasis has been on the provision of detailed, real-time accounts of change rather than more historically informed expositions of how accounting is implicated in organisational change processes over extended periods of time. Several of the studies also have a comparative focus (Mouritsen & Thrane, 2006; Mouritsen et al., 2009) or examine the unfolding relationships between formally independent organisations within larger networks (Thrane & Hald, 2006; Thrane, 2007). This detracts somewhat from the depth of the process analyses whilst detailed attention is being paid to the specific episodes through which accounting gets involved in the shaping of organisational realities.

The types of changes observed in Danish research on management accounting change often display an intricate mix of properties as a result of accounting being implicated in complex organisational processes, which often take unexpected trajectories and generate a diversity of outcomes. As is often the case in research inspired by actor-network theory, much of this research emphasises the inherent instability of organisational life. Even though accounting can imbue organisations and network relations with a temporary degree of stability, this is often a fragile and contestable state which requires continuous and significant efforts on the part of organisational actors to be maintained. For instance, Thrane (2007) illustrates how accounting failed to instil a greater degree of stability and rather caused the network relations to continuously oscillate between diverse states. Similarly, Skærbæk and Tryggestad (2010) show how the use of various accounting devices to frame evolving strategies generated significant, unintended consequences, or overflows, and how various actors had to work hard to contain such overflows. The examination of how such processes unfold typically means that researchers shed significant light on several dimensions of change. Formal change initiatives, launched by senior management, often morph into informal changes, which are difficult for managers to control and often have a range of unintended consequences. The occurrence of unintended consequences with benign as well as det-

rimental outcomes also means that researchers often draw attention to both progressive and regressive effects within the same change process. However, with the exception of Mouritsen et al. (2009), most of the observed change processes are of a relatively evolutionary nature. Revolutionary change in management accounting practices, entailing fundamental and enduring transformations of organisational rules and routines, seems to be a relatively rare phenomenon although research inspired by actor-network theory often draws attention to radical change initiatives and the emergence of innovative practices (Justesen & Mouritsen, 2011). Yet, in their comparative analysis of different types of change processes, Mouritsen et al. (2009) show that accounting can be a source of both evolutionary change, implying relatively limited transformation of organisational practices, as well as revolutionary change.

Finland

Finnish research on management accounting change represents the second largest number of papers from any individual country, with 21 papers being published between 2006 and 2016. The majority of these papers are based on empirical studies in the public or not-for-profit sectors and mainly explore the influence of large-scale policy and management reforms on budgeting (Hyvönen & Järvinen, 2006; Mutiganda, 2013), costing (Järvinen, 2006; Lehtonen, 2007; Kantola & Järvinen, 2012; Mättö & Sippola, 2016), performance measurement (Rautiainen, 2010; Rautiainen & Järvenpää, 2012) and the use of enterprise resource planning systems (Hyvönen et al., 2008, 2009). Only a third of the Finnish studies are set in private sector firms and have explored topics such as the changing nature of budgeting (Henttu-Aho & Järvinen, 2013), costing (Kallunki & Silvola, 2008; Suomala et al., 2014), performance measurement (Vaivio, 2006), management accounting and information systems (Lukka, 2007), the roles of management accountants (Järvenpää, 2007) and the use of accounting in relation to new product development (Taipaleenmäki, 2014). In terms of the choice of research methods, the studies under review are dominated by in-depth, longitudinal studies, using a variety of qualitative data collection techniques in one or two organisations. Only a small number of cross-sectional studies, based on surveys (Kallunki & Silvola, 2008) or a larger number of case studies (Hyvönen et al., 2012; Henttu-Aho & Järvinen, 2013; Taipaleenmäki, 2014), can be found. Finnish research on management accounting change has thus continued to offer deep empirical insights into the intricate organisational processes associated with this phenomenon. Another sign of continuity in this body of research, which was strongly emphasised in Granlund and Modell's (2005) review, is the enduring use of various forms of interventionist research ap-

proaches where researchers actively participate in devising novel accounting techniques and evaluate the outcomes. Although only two published papers explicitly based on such research projects could be found (Suomala et al., 2014; Mättö & Sippola, 2016), this is more than in any of the other Nordic countries during the time period under investigation. Also, the fact that these studies only represent a fraction of all the papers from Finland does not necessarily mean that interventionist research is in decline in this country, since the barriers to publishing such research in highly ranked accounting journals can be significant (see also Lukka & Suomala, 2014; Rautiainen et al., 2017).

The most striking feature of Finnish research on management accounting change is the strongly pronounced shift towards the use of institutional theory as a dominant method theory during the time period under examination. Whilst Granlund and Modell (2005) found Finnish research to be informed by a relatively broad range of social theories, a notable process of homogenisation seems to have set in over time. Research based on various functionalist approaches, of which there was previously a fair representation, is now in a clear minority (Lehtonen, 2007; Kallunki & Silvola, 2008; Taipaleenmäki, 2014). Moreover, approaches such as governmentality theory (Vaivio, 2006), organisational culture theory (Järvenpää, 2007), actor-network theory (Hyvönen et al., 2008) and occupational identity theory (Järvinen, 2009), have attracted some interest but have not accumulated into more coherent bodies of work. By contrast, institutional theory has been used as the main or only method theory in 13 out of the 21 papers published by Finnish accounting scholars between 2006 and 2016. There are several possible explanations for this shift towards institutional theory as a dominant method theory. One explanation is the empirical focus on public and not-for-profit organisations. Institutional theory is currently one of the most widely used method theories in accounting research in the public sector (van Helden, 2005; Jacobs, 2012) and has gained popularity due to its emphasis on the complex political and institutional processes that typically unfold as an integral part of public policy and management reforms (Modell, 2009a). Another, complementary explanation is the emergence of a new group of Finnish accounting researchers, with a strong predilection for institutional theory, which largely overlaps with the focus on the public and not-for-profit sectors as an empirical field of investigation. Out of the 13 papers using institutional theory, all but two (Lukka, 2007; Henttu-Aho & Järvinen, 2013) are based on empirical data from these societal sectors and ten of the eleven remaining papers have Timo Hyvönen, Janne Järvinen, Jean-Claude Mutiganda and/or Antti Rautiainen as sole or joint author(s). It is also worth noting that, during the time period under examination, institutional theory has entrenched its position as one of the main method theories in research on management accounting change beyond

the Nordic countries (Moll et al., 2006; Ribeiro & Scapens, 2006). Hence, its increasing dominance is not a specifically Finnish, or even Nordic, phenomenon, but should rather be seen as a sign of international convergence.

The dominance of institutional theory and the focus on the public and not-for-profit sectors in Finnish research on management accounting change have far-reaching implications for the types of changes observed. The vast majority of this research explores how organisations respond to major public policy and management reforms, whilst often drawing attention to how such change initiatives are moderated by extant institutions and foster a complex mix of intended and unintended outcomes. A common finding is that the institutional reform context often leads novel management accounting techniques to remain loosely coupled to operating-level decision-making and control (e.g., Hyvönen & Järvinen, 2006; Rautiainen, 2010; Mättö & Sippola, 2016), although variations in organisational responses to institutional pressures are documented in some studies (e.g., Järvinen, 2006; Mutiganda, 2013). However, such observations are often confined to formal organisational change processes without being combined with empirical excursion into the more informal domain to advance deeper insights into how change processes evolve and generate progressive and regressive outcomes. A notable exception to this pattern is Lukka's (2007) study, which offers detailed insights into how the rules embedded in management accounting systems remain loosely coupled to organisational routines as a result of an intricate interplay between the formal and informal domain and how this interplay generates a complex amalgam of progressive and regressive outcomes. Moreover, it is only relatively recently that Finnish accounting researchers have started to engage with more contemporary strands of institutional theory, such as research on institutional logics (Hyvönen et al., 2009; Kantola & Järvinen, 2012; Rautiainen & Järvenpää, 2012; Järvinen, 2016) and institutional entrepreneurship (Hyvönen et al., 2012), which nuance the claim that institutionalised accounting practices tend to remain loosely coupled to operating-level decisions and control practices. However, even where this is the case, the main analytical focus has continued to be on formal change processes and how such processes take on a highly evolutionary character as a result of the complex interplay between extant and emerging institutional structures. Studies documenting revolutionary change processes are relatively rare and mostly based on other method theories than institutional theory (e.g., Vaivio, 2006; Järvenpää, 2007; Lehtonen, 2007; Järvinen, 2009).

Norway

Norwegian research on management accounting change is represented by a smaller number of papers, which focus on the role of budgets and performance measurement in public sector reforms (Östergren, 2006; Pettersen & Solstad, 2007) and the development of new accounting and control practices in sectors, such as the petroleum and telecommunications industries, which are still subject to strong government regulation but undergoing significant change (Östergren & Stensaker, 2011; Bourmistrov & Kaarbøe, 2013; Jordan et al., 2013). Similar to most other Nordic research on management accounting change, these studies are predominantly qualitative and based on longitudinal or comparative case studies which examine the process of change in varying degrees of detail. This represents a clear break with earlier Norwegian research on management accounting change which, unlike the other Nordic countries, tended to have a stronger quantitative emphasis. Granlund and Modell (2005) ascribed this predilection for quantitative research methods to the strongly positivist, North American influences, which have historically shaped Norwegian accounting research. However, over time, these influences seem to have diminished and have been replaced by a research tradition which is similar to that prevailing in the other Nordic countries. This movement away from positivist research approaches is also reflected by the wider range of social theories, including institutional theory, resource dependence theory and actor-network theory, informing the papers under review, although there are also studies which do not mobilise any clearly discernible method theory.

Another notable development in Norwegian research on management accounting change is the interest in new research themes, such as “beyond budgeting” (Östergren & Stensaker, 2011; Bourmistrov & Kaarbøe, 2013) and risk management (Jordan et al., 2013), which have attracted increasing attention in international management accounting research over the past decade. Of particular interest in this regard is the use of “beyond budgeting” approaches, which were arguably pioneered by some Nordic firms, such as Svenska Handelsbanken (see Wallander, 1999), and which have since diffused to other parts of the world and have attracted increasing attention from consultants and accounting scholars (see Becker et al., 2016). Whilst the adoption of “beyond budgeting” as a formal control concept is typically associated with the abandonment of traditional budgets and reduced incentives for budgetary gaming, Norwegian research on this topic shows that it can have intended as well as unintended consequences. Both Östergren and Stensaker (2011) and Bourmistrov and Kaarbøe (2013) underline the revolutionary nature of “beyond budgeting” as an accounting innovation that fundamentally reshapes organisational relationships and triggers major change in control practices. However, the effects of such change initiatives have been shown to be multifaceted and not

conforming neatly to the normative ideals typically associated with “beyond budgeting” as a general approach to management control. In an early study of the use of “beyond budgeting” in a large oil and gas company (“Oilco”), Östergren and Stensaker (2011) observed that the initial effects of this initiative included several progressive outcomes, such as the adoption of a more pro-active, decentralised and dynamic approach to control, but also generated regressive tendencies, such as a shift in power in favour of top management and a risk of new forms of budgetary games evolving. However, in a later, comparative study between Oilco and a telecommunications company, Bourmistrov and Kaarbøe (2013) illustrate how the progressive effects of “beyond budgeting”, primarily manifest in the pro-active pursuit of stretch targets, came to dominate managerial mind-sets in both organisations. This change in the outcomes of “beyond budgeting” can, of course, be due to the passage of time and the fact that some radical change initiatives require longer periods of digestion before their consequences are more fully observable. However, Bourmistrov and Kaarbøe’s (2013) findings may also be due to their narrower analytical focus, since they mainly examined the effects of “beyond budgeting” on target-setting and performance evaluation, and the authors recognise that the implementation of this innovation is an inherently indeterminate phenomenon whose consequences are never possible to fully predict. Similar observations were made by Jordan et al. (2013), who studied the mediating role of risk maps in project management and concluded that this role entailed both progressive outcomes, such as improved alignment of project control, and regressive effects, such as a reductionist tendency to narrow down the concept of risk management.

Sweden

Swedish research on management accounting change accounts for the largest number of papers from any individual country, with 24 papers being published between 2006 and 2016. Most of these papers have examined traditional accounting topics, such as costing and performance measurement and management, but there are also a number of studies exploring novel research themes such as the role of accounting in process improvement (Abrahamsson et al., 2011), innovation management (Christner & Strömsten, 2015), initial public offerings (Kraus & Strömsten, 2012) and risk management (Wahlström, 2009). Furthermore, Swedish accounting researchers have made notable contributions to research on the evolution of inter-organisational accounting and control practices (Carlsson-Wall et al., 2011; Kraus, 2012; Kastberg, 2014, 2016; Kraus & Strömsten, 2016). In terms of the choice of method theories, there is considerable continuity, with a large number of papers adopting institutional theory (Modell, 2006, 2012; Adolfsson & Wikström, 2007; Modell et al., 2007; Johansson & Siverbo, 2009; Englund et al., 2013; Carlsson-

Wall et al., 2016a) or closely related approaches, such as diffusion theory (Modell, 2009b), garbage can theory (Wiesel et al., 2011) and organisational identity theory (Abrahamsson et al., 2011), as an analytical lens. However, there is also a notable decline in the number of studies adopting a functionalist perspective, characterised by limited attention to the political and social processes involved in management accounting change. Whilst Granlund and Modell (2005) identified a relatively large number of studies based on functionalist approaches, such as contingency theory and transaction cost economics, such approaches have virtually ceased to inform Swedish research on management accounting change. In recent years, Swedish accounting researchers have also broadened their theoretical horizons and a growing number of studies have started to use actor-network theory (Kastberg, 2014; Siverbo, 2014; Kastberg & Siverbo, 2016) and various discursive approaches (Carlsson-Wall et al., 2016b; Kraus & Strömsten, 2016) to shed light on management accounting change processes.

In terms of research methods, the vast majority of Swedish research on management accounting change takes the form of relatively deep, process-orientated studies, which often rely on multiple data sources and a combination of real time and retrospective analyses. Only a small minority of the Swedish studies under review adopt a cross-sectional research design, using comparative case studies (Wahlström, 2009; Kraus & Lind, 2010) or surveys (Johansson & Siverbo, 2009) as methods of data collection. The use of longitudinal research methods has enabled researchers to delve into the multifaceted nature of management accounting change as it unfolds over time. However, the more precise nature of the observed change processes also differs somewhat depending on the research contexts under examination and the choice of method theories. Most Swedish research on management accounting change has concentrated on the formal dimensions of change and has mainly documented how accounting is implicated in complex, evolutionary change processes with both progressive and regressive outcomes. Similar to the pattern emerging from Finnish research on management accounting change, the tendency to concentrate on the formal and evolutionary dimensions of change is particularly strong in the papers informed by institutional theory. The possible reasons for this are also likely to be similar. As in the case of Finnish research, most Swedish studies drawing on institutional theory and related perspectives have been situated in various parts of the public sector, such as central government (Modell, 2009b, 2012; Modell et al., 2007; Wiesel et al. 2011), local government (Adolfsson & Wikström, 2007; Johansson & Siverbo, 2009) and higher education (Modell, 2006), and have generally been undertaken against the backdrop of large-scale policy and management reforms. This draws attention to the formal organisational responses to such reforms, which institutional theory tends to highlight, whilst emphasising the evolutionary paths of change that emerge as formal change

initiatives are moderated by strongly institutionalised structures and practices. However, with a few exceptions (Adolfsson & Wikström, 2007; Abrahamsson et al., 2011; Englund et al., 2013), relatively little attention has been paid to the informal domain where organisational members engage in more mundane efforts to make sense of accounting and cope with institutional pressures for change.

More equal attention to both formal and informal change processes, as well as the intricate co-existence of progressive and regressive outcomes of change, can be found in the papers using actor-network theory as their method theory (Kastberg, 2014; Siverbo, 2014; Kastberg & Siverbo, 2016). Similar to other studies inspired by actor-network theory, such as those dominating Danish research on management accounting change, these papers draw on rich data sets collected over relatively extensive periods of time and include detailed analyses of unfolding network relationships between organisations or between multiple actors within individual organisations. They also shed light on how management accounting practices are implicated in complex change processes which continuously generate and, indeed, oscillate between stabilising and dynamising forces. For instance, Siverbo (2014) shows how the implementation of benchmarking gradually produced a degree of social consensus among a broader range of human actors, but how benchmarking itself, as a non-human actor, can disrupt the stability emerging from such consensus. However, this body of research also provides interesting insights into how the choice of method theories can have a relatively major impact on how change processes are portrayed. In an actor-network-inspired paper, Kastberg (2014) drew attention to the intricate interplay formal and informal change processes whilst, in a later paper based on the same data set (Kastberg, 2016), the author mobilised a rather different theoretical perspective (theories of trust) which primarily focussed on the formal aspects of change. A similar example can be found in Modell's (2009b, 2012) case study of performance management in a Swedish central government agency. The first paper that emerged from this study drew on diffusion theory and showed how two separate change initiatives, inspired by the Balanced Scorecard and Total Quality Management, gradually came together in an organisation-specific control system and how this system improved the alignment with emerging government objectives (see Modell, 2009b). However, in a subsequent paper, where the author combined institutional and critical theories, the emphasis shifted from a focus on such progressive outcomes to the regressive effects that emerged as this goal alignment led to the suppression of disenfranchised stakeholder interests (see Modell, 2012). Taken together, these examples show how the application of diverse method theories can enrich our understanding of the same process of management accounting change. However, they also underline how theory-dependent the depiction of this multifaceted phenomenon is. Modell's (2012) paper also represents a very rare example of Nordic research on management accounting change that is explicitly inspired by critical theory.

Is there (still) a Nordic tradition in research on management accounting change?

The literature review presented above shows that the issue of management accounting change has continued to generate considerable interest among accounting scholars in the Nordic countries. To what extent is it then possible to identify a distinct, Nordic research tradition in this body of work? And is there a degree of continuity or change in this regard? These questions can be addressed along several lines.

The first dimension to consider concerns the research themes, or domain theories, of interest. Although a substantial amount of the research under review has continued to focus on traditional management accounting topics, such as budgeting, costing and performance measurement and management, there is also a sizeable stream of studies exploring novel themes, such as “beyond budgeting”, enterprise resource planning, inter-organisational accounting and control, risk management and the changing professional roles of management accountants. This interest in exploring new research themes related to management accounting change was evident already in Granlund and Modell’s (2005) review and testifies to the continued ambition of Nordic accounting researchers to extend their work to new objects of calculation (cf. Jönsson & Mouritsen, 2005). However, there are also examples of particular research themes, notably those of intangible assets and intellectual capital, disappearing as an object receiving sustained empirical attention. Whilst research on this topic featured relatively prominently in Granlund and Modell’s (2005) review, no such studies were identified in the present literature review. Taken together, this suggests that research on management accounting change follows a somewhat faddish pattern as a result of focusing on innovations, which are often promoted by influential academics and management consultants but tend to have relatively short life cycles. However, this is not a uniquely Nordic phenomenon (see Ittner & Larcker, 2001), nor does it necessarily detract from the ability of accounting scholars to advance insights into organisational change processes of more general and durable relevance. Rather, as I have argued elsewhere (Modell, 2009b, 2014), the diffusion of management accounting innovations has been an important source of rejuvenation for management accounting research over the past decades and, provided that the examination of such innovations is thoroughly situated in their organisational and societal contexts, such research can generate valuable insights into how accounting and control practices evolve over time. Moreover, even though it perhaps difficult to identify a distinct, Nordic tradition in terms of the research themes being explored, there is some evidence of Nordic accounting researchers making pioneering contributions to international research on management accounting change. The most notable example of this during the

time period covered by the present review is research on “beyond budgeting” (Östergren & Stensaker, 2011; Bourmistrov & Kaarbøe, 2013; Henttu-Aho & Järvinen, 2013), where Nordic researchers have been among the first to offer detailed empirical insights into its effects on organisational control practices. To a lesser extent, the same may be said about the growing empirical attention to inter-organisational accounting and control practices (see also Håkansson & Lind, 2007).

The difficulties in identifying a distinct, Nordic tradition with respect to the domain theories under consideration are perhaps not surprising given the growing international convergence in management accounting practices. Although Nordic management accounting practices have always evolved under strong influence from outside the Nordic countries (Näsi & Rohde, 2007), the past two decades have arguably witnessed an increasing homogenisation of such practices around the world (Granlund & Lukka, 1998; Busco et al., 2007b). Interestingly, similar tendencies towards homogenisation are also discernible regarding the choice of method theories in Nordic research on management accounting change. Over the past decade, this research has become increasingly dominated by institutional theory and, to a lesser extent, actor-network theory. Of the 55 papers under review, no less than 31 (56 per cent) rely on one these theories as their main or sole method theory. Although these theories have long had a strong standing in Nordic research on management accounting change, this is a considerable increase compared to the preceding ten-year period (1996-2005).³ As noted in the foregoing, the increasing reliance on actor-network and institutional theories mirrors broader, international developments in research on management accounting change and it is thus difficult to attribute their popularity exclusively to a particular, Nordic research tradition. However, it is obvious that their increasing dominance has occurred at the expense of other method theories, which were previously more widely represented in the Nordic countries. For instance, during the time period under consideration, there has been a notable decline in research relying on various functionalist approaches inspired by contingency theory and economic theories. This is particularly the case in Norway and Sweden, where such research has historically had a stronger position (see Granlund & Modell, 2005). An even more pronounced change is the virtual disappearance of research informed by theories of organisational learning. Whilst Granlund and Modell (2005) saw the prevalence of such studies, which often emerged from interventionist research projects, as one of the most distinctive features of Nordic research on management accounting change, they do not loom large in the present review. All in all, it is thus increasingly difficult to talk about a distinct, Nordic tradition in research on management accounting change, even though Nordic accounting researchers have continued to make important theoretical contributions to the evolving, international research agenda on this topic.

³ The proportion of papers relying on actor-network and institutional theories in Granlund and Modell’s (2005) review was 30 per cent.

The picture emerging from the above discussion suggests that Nordic accounting researchers are now well-integrated in a broader, international research community, where the issue of management accounting change has constituted a major area of research. This observation is further underlined by the fact that a growing, but still relatively small, number of papers are co-authored by Nordic and one or more non-Nordic researcher(s). This trend is likely become more pronounced over the coming years as Nordic accounting scholars extend their international collaboration and, perhaps, take up permanent or visiting academic positions outside the Nordic countries. However, the academic community in which Nordic research on management accounting change is embedded is a distinctly non-positivist one, which is particularly strong in Europe but much more weakly represented in North America (Lukka, 2010). As noted above, functionalist research approaches are in decline and this has reinforced the already dominant position of qualitative research methods in Nordic research on management accounting change. Only a handful of quantitative, survey-based studies have been identified (Kallunki & Silvola, 2008; Johansson & Siverbo, 2009) and even where such methods are used, the research has primarily been informed by sociological theories rather than economics- or psychology-based approaches as is typical of North American management accounting research. The evolution of Nordic research on management accounting change over the past decade has thus contributed to cement the long-standing paradigmatic divide between the positivist and non-positivist traditions in international management accounting research. There are few signs of this state of affairs changing in the foreseeable future, although some Nordic accounting researchers have expressed a degree of sympathy with attempts to bridge the paradigmatic divide (see Modell, 2010; Vaivio & Siren, 2010).

It is possible that the strongly non-positivist tradition, primarily drawing on a range of sociological theories rather than economics- or psychology-based approaches, can be linked to the broader organisational and societal context in which Nordic management accounting practices are embedded. According to Johnsen and Vakkuri (2006), the Nordic countries feature a highly consensual and egalitarian social model and this, they suggest, has favoured a view of management accounting and control practices as a means of establishing dialogue and striking compromises between multiple stakeholder interests rather than serving more narrowly defined economic objectives. This has, in turn, created an intellectual environment that is conducive to studying accounting from a broader range of social theory perspectives, rather than confining research to concerns with how to align organisational behaviour with the economics-based imperatives of profit maximisation and shareholder value creation. In the present literature review, this tendency is perhaps accentuated by the heavy emphasis on public sector and not-for-profit organisations, where the need to seek compromises between competing

stakeholder interests is presumably greater than in the private sector. Nevertheless, it is interesting to ponder the question of whether this situation is changing in the light of the growing international convergence of management accounting practices and wider changes in organisations and society following in the wake of globalisation. Although Nordic research on management accounting change has so far proved resilient to any pressures for conformity with the arguably dominant, positivist research tradition that prevails in North America (cf. Lukka, 2010), more attention is required to whether Nordic management accounting practices are becoming more homogeneous as a result of globalisation or whether context-specific, hybrid practices emerge as globalising pressures interact with extant, local practices (see e.g., Cruz et al., 2011; Cooper and Ezzamel, 2013). In the longer term, it is also necessary to be vigilant against any attempts to streamline research practices, such that the intellectual vibrancy that follows from the pluralism that has been the hallmark of Nordic and, indeed, European research on management accounting change is not undermined (see also Lukka & Mouritsen, 2002). As I have argued in this chapter, the issue of how such change processes are theorised is not only a reflection of their underlying, multifaceted nature, but is also heavily dependent on the choice of method theories. Hence, a narrowing of the theoretical approaches used to study management accounting change will inevitably limit our understanding of this phenomenon.

In view of this call for continued pluralism, the growing dominance of actor-network and institutional theories in Nordic research on management accounting change is perhaps a cause for concern. Even though these theoretical approaches come in many variants and have not yet suppressed the use of other social theories, there is evidence of some forms of sociologically informed research being very poorly represented in the Nordic countries. The most notable lacuna is the virtual absence of research informed by critical theory. Only one paper, explicitly mobilising such a perspective as a complement to institutional theory, was identified in the literature review (Modell, 2012). It is also noteworthy that this paper was written by a researcher (myself) who, at the time, had left the Nordic countries for a permanent position at an academic institution in the United Kingdom. This piece of research can thus be said to be rather atypical of Nordic research on management accounting change, although the empirical material informing the paper was drawn from a field study in a Swedish central government agency. It is interesting to reflect on what might explain this absence of a critical research agenda, featuring more pronounced concerns with human emancipation and radical social change, in the Nordic countries. According to Mouritsen et al., (2002), this may have something to do with the economic and social model that prevails in this part of the world. This model has arguably fostered a widespread view of social progress as an incremental and largely consensual endeavour, which entails a significant degree of compromise rather than conflicts rooted in pronounced class differences.

Hence, in so far as Nordic accounting researchers have advanced social critique, this has tended to be of a more pragmatic than radical kind and this has detracted from their interest in conventional Marxist theory and related strands of critical thought (Mouritsen et al., 2002). However, there is a risk of this consensual view silencing more vigorous debate and concealing pressing political and social concerns by normalising particular understandings of the role of accounting in organisations and society. A situation in which actor-network and institutional theories continue to dominate research on management accounting change may exacerbate these tendencies, since neither of these approaches have been very concerned with radicalising accounting scholarship (Modell, 2014).

Concluding remarks

In this chapter, I have reviewed the development of Nordic research on management accounting change between 2006 and 2016. I have drawn attention to how this body of work entails tendencies towards continuity as well as change compared to corresponding research published over the preceding decades. Whilst there has been a considerable increase in the amount of research published in well-regarded accounting journals, I have argued that it is increasingly difficult to identify a distinct, Nordic research tradition in the papers under review. Research traditions which were previously distinctive in the Nordic countries, such as the use of interventionist research methods and studies of the role of accounting in relation to organisational learning, are now much less salient. Instead, Nordic research on management accounting change shows growing signs of conformity with a broader, predominantly European research tradition and is increasingly dominated by two particular method theories, namely actor-network theory and institutional theory. In some respects, Nordic accounting researchers can be said to have been leading this development by continuing to publish prolifically in well-regarded research journals and undertaking pioneering studies into emerging research themes. There is also a considerable degree of continuity in terms of the extensive use of qualitative research methods providing rich, longitudinal accounts of management accounting change processes. However, I have also drawn attention to what is conspicuously missing in Nordic research on management accounting change. In particular, I have discussed the absence of critical research, entailing an explicit emancipatory intent, and what might explain this lacuna. This topic was not touched upon by Granlund and Modell (2005) and it is perhaps apt to conclude this chapter with some personal reflections as to why it has now emerged as a more central concern of mine. As suggested above, it may be related to my move to the University of Manchester in 2007 and my increasing interactions with British accounting

scholars steeped in a more critical research tradition. Or perhaps it has something to do with getting older? Happy birthday, Markus!

References

- Abrahamsson, G. – Englund, H. – Gerdin, J. (2011) Organisational identity and management accounting change. *Accounting, Auditing and Accountability Journal*, Vol. 24 (3), 345–376.
- Adolfsson, P. – Wikström, E. (2007) After quantification: quality dialogue and performance. *Financial Accountability and Management*, Vol 23 (1), 73–89.
- Aidemark, L-G. – Funck, E.K. (2009) Measurement and healthcare management. *Financial Accountability and Management*, Vol. 25 (3), 253–276.
- Becker, S. – Messner, M. – Schäffer, U. (2016) Institutional work between dissemination and fidelity: insights from the case of Beyond Budgeting, working paper, HEC Paris.
- Bourmistrov, A. – Kaarbøe, K. (2013) From comfort to stretch zones: a field study of two multinational companies applying “beyond budgeting” ideas. *Management Accounting Research*, Vol. 24 (3), 196–211.
- Burns, J. – Scapens, R.W. (2000). Conceptualising management accounting change: an institutional framework. *Management Accounting Research*, Vol. 11 (1), 3–25.
- Burns, J. – Vaivio, J. (2001). Management accounting change. *Management Accounting Research*, Vol. 12 (4), 389–402.
- Busco, C. – Quattrone, P. – Riccaboni, A. (2007a) Management accounting: issues in interpreting its nature and change. *Management Accounting Research*, Vol. 18 (2), 125–149.
- Busco, C. – Giovannoni, E. – Riccaboni, A. (2007b) Globalisation and the international convergence of management accounting. In *Issues in Management Accounting (3rd ed)*, ed. by T. Hopper – D. Northcott – R.W. Scapens. London: Pearson.
- Carlsson-Wall, M. – Kraus, K. – Lind, J. (2011) The interdependence of intra- and inter-organisational controls and work practices – the case of domestic care of the elderly. *Management Accounting Research*, Vol. 22 (4), 313–329.
- Carlsson-Wall, M. – Kraus, K. – Messner, M. (2016a) Performance measurement systems and the enactment of different institutional logics: insights from a football organization. *Management Accounting Research*, Vol. 32, 45–61.

- Carlsson-Wall, M. – Kraus, K. – Lund, M. – Sjögren, E. (2016b) 'Accounting talk' through metaphorical representations: change agents and organisational change in home-based elderly care. *European Accounting Review*, Vol. 25 (2), 215–243.
- Christner, C. H. – Strömsten, T. (2015) Scientists, venture capitalists and the stock exchange: the mediating role of accounting in product development. *Management Accounting Research*, Vol. 28, pp. 50–67.
- Cooper, D.J. – Ezzamel, M. (2013) Globalization discourses and performance measurement systems in a multinational firm. *Accounting, Organizations and Society*, Vol. 38 (4), 288–313.
- Cruz, I. – Scapens, R.W. – Major, M. (2011) The localisation of a global management control system. *Accounting, Organizations and Society*, Vol. 36 (7), 412–427.
- Englund, H. – Gerdin, J. (2015) Developing enabling performance measurement systems: on the interplay between numbers and operational knowledge. *European Accounting Review*, Vol. 24 (2), 277–303.
- Englund, H. – Gerdin, J. – Abrahamsson, G. (2013) Accounting ambiguity and structural change. *Accounting, Auditing and Accountability Journal*, Vol. 26 (5), 423–448.
- Granlund, M. – Lukka, K. (1998) It's a small world of management accounting practices. *Journal of Management Accounting Research*, Vol. 10, 153–179.
- Granlund, M. – Modell, S. (2005) Nordic Contributions to the Management Accounting Change Literature. In *Accounting in Scandinavia – The Northern Lights* S. Jönsson – J. Mouritsen. Malmö: Liber and Copenhagen Business School Press.
- Håkansson, H. – Lind, J. (2007) Accounting in an interorganizational setting. In *Handbook of Management Accounting Research*, Vol. 2, ed. by C.S. Chapman – A.G. Hopwood – M.D. Shields. Oxford: Elsevier.
- Henttu-Aho, T. – Järvinen, J. (2013) A field study of the emerging practice of beyond budgeting in industrial companies: an institutional perspective. *European Accounting Review*, Vol. 22 (4), 765–785.
- Hyvönen, T. – Järvinen, J. (2006) Contract-based budgeting in health care: a study of the institutional processes of accounting change. *European Accounting Review*, Vol. 15 (1), 3–36.

- Hyvönen, T. – Järvinen, J. – Oulasvirta, L. – Pellinen, J. (2012) Contracting out municipal accounting: the role of institutional entrepreneurship. *Accounting, Auditing and Accountability Journal*, Vol. 25 (6), 944–963.
- Hyvönen, T. – Järvinen, J. – Pellinen, J. (2008) A virtual integration: the management control system in a multinational enterprise. *Management Accounting Research*, Vol. 19 (1), 45–61.
- Hyvönen, T. – Järvinen, J. – Pellinen, J. – Rahko, T. (2009) Institutional logics, ICT and stability of management accounting. *European Accounting Review*, Vol. 18 (2), 241–275.
- Ittner, C.D. – Larcker, D.F. (2001) Assessing empirical research in managerial accounting: a value-based management perspective. *Journal of Accounting and Economics*, Vol. 32 (4), 349–410.
- Jacobs, K. (2012). Making sense of social practice: theoretical pluralism in public sector accounting research. *Financial Accountability and Management*, Vol. 28 (1), 1–25.
- Järvenpää, M. (2007) Making business partners: a case study on how management accounting culture was changed. *European Accounting Review*, Vol. 16 (1), 99–142.
- Järvinen, J. (2006) Institutional pressures for adopting new cost accounting systems in Finnish hospitals: two longitudinal case studies. *Financial Accountability and Management*, Vol. 22 (1), 21–46.
- Järvinen, J. (2009) Shifting NPM agendas and management accountants' occupational identities. *Accounting, Auditing and Accountability Journal*, Vol. 22 (8), 1187–1210.
- Järvinen, J. (2016) Role of management accounting in applying new institutional logics. A comparative case study in the non-profit sector. *Accounting, Auditing and Accountability Journal*, Vol. 29 (5), 861–886.
- Johansson, T. – Siverbo, S. (2009) Explaining the utilization of relative performance evaluation in local government: a multi-theoretical study using data from Sweden. *Financial Accountability and Management*, Vol. 25 (2), 197–224.
- Johnsen, A. – Vakkuri, J. (2006) Is there a Nordic perspective on public sector performance measurement? *Financial Accountability and Management*, Vol. 22 (3), 291–308.

- Jönsson, S. – Mouritsen, J. (2005) Accounting for new objects in small countries. In *Accounting in Scandinavia – The Northern Lights*, ed. by S. Jönsson – J. Mouritsen. Malmö: Liber and Copenhagen Business School Press.
- Jordan, S. – Jørgensen, L. – Mitterhofer, H. (2013) Performing risk and the project: risk maps as meditating instruments. *Management Accounting Research*, Vol. 24 (2), 156–174.
- Justesen, L. – Mouritsen, J. (2011). Effects of actor-network theory in accounting research. *Accounting, Auditing and Accountability Journal*, Vol. 24 (2), 161–193.
- Kallunki, J.-P. – Silvola, H. (2008) The effect of organisational life cycle stage on the use of activity-based costing. *Management Accounting Research*, Vol. 19 (2), 62–79.
- Kantola, H. – Järvinen, J. (2012) Analysing the institutional logic of late DRG adopters. *Financial Accountability and Management*, Vol. 28 (3), 269–285.
- Kastberg, G. (2014) Framing shared services: accounting, controls and overflows. *Critical Perspectives on Accounting*, Vol. 25 (8), 743–756.
- Kastberg, G. (2016) Trust and control in network relations: a study of a public sector setting. *Financial Accountability and Management*, Vol. 32 (1), 33–56.
- Kastberg, G. – Siverbo, S. (2016) The role of management accounting and control in making professional organizations horizontal. *Accounting, Auditing and Accountability Journal*, Vol. 29 (3), 428–451.
- Kraus, K. (2012) Heterogeneous accountingisation: accounting and inter-organisational cooperation in home care services. *Accounting, Auditing and Accountability Journal*, Vol. 25 (7), 1080–1112.
- Kraus, K. – Lind, J. (2010) The impact of the corporate balanced scorecard on corporate control – a research note. *Management Accounting Research*, Vol. 21 (4), 265–277.
- Kraus, K. – Strömsten, T. (2012) Going public: The role of accounting and shareholder value in making sense of an IPO. *Management Accounting Research*, Vol. 23 (3), 186–201.
- Kraus, K. – Strömsten, T. (2016) Internal/inter-firm control dynamics and power – a case study of the Ericsson-Vodafone relationship. *Management Accounting Research*, Vol. 33, 61–72.

- Lehtonen, T. (2007) DRG-based prospective pricing and case-mix accounting – exploring the mechanisms of successful implementation. *Management Accounting Research*, Vol. 18 (3), 367–395.
- Lukka, K. (2005) Approaches to case research in management accounting: the nature of empirical intervention and theory linkage. In *Accounting in Scandinavia – The Northern Lights*, ed by S. Jönsson – J. Mouritsen. Malmö: Liber and Copenhagen Business School Press.
- Lukka, K. (2007) Management accounting change and stability: loosely coupled rules and routines in action. *Management Accounting Research*, Vol. 18 (1), 76–101.
- Lukka, K. (2010) The roles and effects of paradigms in accounting research. *Management Accounting Research*, Vol. 21 (2), 110–115.
- Lukka, K. – Kasanen, E. (1996) Is accounting a global or local discipline? Evidence from major accounting journals. *Accounting, Organizations and Society*, Vol. 21 (7–8), 755–773.
- Lukka, K. – Mouritsen, J. (2002) Homogeneity or heterogeneity of research in management accounting? *European Accounting Review*, Vol. 11 (4), 805–811.
- Lukka, K. – Suomala, P. (2014) Relevant interventionist research: balancing three intellectual virtues. *Accounting and Business Research*, Vol. 44 (2), 204–220.
- Lukka, K. – Vinnari, E. (2014) Domain theory and method theory in management accounting research. *Accounting, Auditing and Accountability Journal*, Vol. 27 (8), 1308–38.
- Mättö, T. – Sippola, K. (2016) Cost management in the public sector: legitimation behaviour and relevant decision-making. *Financial Accountability and Management*, Vol. 32 (2), 179–201.
- Modell, S. (2006) Institutional and negotiated order perspectives on cost allocations: the case of the Swedish university sector. *European Accounting Review*, Vol 15 (2), 219–251.
- Modell, S. (2007) Managing Accounting Change. In *Issues in Management Accounting (3rd ed)*, ed. by T. Hopper – D. Northcott – R.W. Scapens. London: Pearson.
- Modell, S. (2009a) Institutional research on performance measurement and management in the public sector accounting literature: a review and assessment. *Financial Accountability and Management*, Vol. 25 (3), 277–303.

- Modell, S. (2009b) Bundling management control innovations: a field study of organisational experimenting with Total Quality Management and the Balanced Scorecard. *Accounting, Auditing and Accountability Journal*, Vol. 22 (1), 59–90.
- Modell, S. (2010) Bridging the paradigm divide in management accounting research: the role of mixed methods approaches. *Management Accounting Research*, Vol. 21 (2), 124–129.
- Modell, S. (2012) Strategy, political regulation and management control in the public sector: institutional and critical perspectives. *Management Accounting Research*, Vol. 23 (3), 278–295.
- Modell, S. (2014) The societal relevance of management accounting: an introduction to the special issue. *Accounting and Business Research*, Vol. 44 (2), 83–103.
- Modell, S. – Jacobs, K. – Wiesel, F (2007) A process (re)turn? Path dependencies, institutions and performance management in Swedish central government. *Management Accounting Research*, Vol. 18 (4), 453–475.
- Moll, J. – Burns, J., – Major, M. (2006). Institutional theory. In: *Methodological Issues in Accounting Research: Theories and Methods*, ed. by Z. Hoque, 183–206. London: Spiramus Press Ltd.
- Mouritsen, J. – Hansen, A. – Hansen, C. O. (2009). Short and long translations: management accounting calculations and innovation management. *Accounting, Organizations and Society*, Vol. 34 (6–7), 738–754.
- Mouritsen, J., – Thorsgaard Larsen, H. – Hansen, A. (2002). “Be critical!” Critique and naivete - Californian and French connections in critical Scandinavian accounting research. *Critical Perspectives on Accounting*, Vol. 13 (4), 497–513.
- Mouritsen, J – Thrane, S. (2006) Accounting, network complementarities and the development of inter-organisational relations, *Accounting, Organizations and Society*, Vol. 31 (3), 241–275.
- Mutiganda, J.C. (2013). Budgetary governance and accountability in public sector organisations: an institutional and critical realism approach. *Critical Perspectives on Accounting*, 24 (7–8), 518–531.
- Mutiganda, J-C. – Hassel, L.G. – Fagerström, A. (2013) Accounting for competition, ‘circuits of power’ and negotiated order between not-for-profit and public sector organisations. *Financial Accountability and Management*, Vol. 29 (4), 378–396.

- Näsi, S. – Rohde, C. (2007) Development of cost and management accounting ideas in the Nordic countries. In *Handbook of Management Accounting Research, Vol. 2*, ed. by C.S. Chapman – A.G. Hopwood – M.D. Shields, 1091–1118. Oxford: Elsevier.
- Östergren, K. (2006) The institutional construction of consumerism: a study of implementing quality indicators. *Financial Accountability and Management*, Vol. 22 (3), 179–205.
- Östergren, K. – Stensaker, I. (2011) Management control without budgets: a field study of “beyond budgeting” in practice. *European Accounting Review*, Vol. 20 (2), 149–181.
- Petterson, I-J. – Solstad, E. (2007) The use of accounting information in a reforming area: a study of higher education institutions. *Financial Accountability and Management*, Vol. 23 (2), pp. 134–154.
- Rautiainen, A. (2010) Contending legitimations: performance measurement coupling and decoupling in two Finnish cities. *Accounting, Auditing and Accountability Journal*, Vol. 23 (3), 373–391.
- Rautiainen, A. – Järvenpää, M. (2012) Institutional logics and responses to performance measurement systems. *Financial Accountability and Management*, Vol. 28 (2), 164–188.
- Rautiainen, A. – Sippola, K. – Mättö, T. (2017) Perspectives on relevance: the relevance test in the constructive research approach. *Management Accounting Research*, Vol. 34 (1), 19–29.
- Ribeiro, J. – Scapens, R.W. (2006). Institutional theories in management accounting change: contributions, issues and paths for development. *Qualitative Research in Accounting and Management*, Vol. 3 (2), 94–111.
- Siverbo, S. (2014) The implementation and use of benchmarking in local government: a case study of the translation of a management accounting innovations. *Financial Accountability and Management*, Vol. 30 (2), 121–149.
- Skærbæk, P. – Tryggestad, K. (2010) The role of accounting devices in performing corporate strategy. *Accounting, Organizations and Society*, Vol. 35 (2), 108–124.
- Suomala, P. – Lyly-Yrjänäinen, J. – Lukka, K. (2014) Battlefield around interventions: a reflective analysis of conducting interventionist research on management accounting. *Management Accounting Research*, Vol. 25 (4), 304–314.

- Taipaleenmäki, J. (2014) Absence and variant modes of presence of management accounting in new product development – theoretical refinement and some empirical evidence. *European Accounting Review*, Vol. 23 (2), 291–334.
- Thrane, S. (2007) The complexity of management accounting change: bifurcation and oscillation in schizophrenic inter-organisational systems. *Management Accounting Research*, Vol. 18 (2), 248–272.
- Thrane, S. – Hald, K.S. (2006) The emergence of boundaries and accounting in supply fields: the dynamics of integration and fragmentation. *Management Accounting Research*, Vol. 17 (3), 288–314.
- Tucker, B. – Parker, L.D. – Merchant, K.A. (2016) With a little help from our friends: an empirical analysis of co-authoring in accounting research. *British Accounting Review*, Vol. 48 (2), 185–205.
- Vaivio, J. (2006) The accounting of “The Meeting”: examining accounting within a “fluid” local space. *Accounting, Organizations and Society*, Vol. 31 (6), 735–762.
- Vaivio, J. – Siren, A. (2010) Insights into method triangulation and “paradigms” in interpretive management accounting research. *Management Accounting Research*, Vol. 21 (2), 130–141.
- van Helden, G.J. (2005) Researching public sector transformation: the role of management accounting. *Financial Accountability and Management*, Vol. 21 (1), 99–133.
- Wahlström, G. (2009) Risk management versus operational action: Basel II in Swedish banks. *Management Accounting Research*, Vol. 20 (1), 53–68.
- Wallander, J. (1999) Budgeting – an unnecessary evil. *Scandinavian Journal of Management*, Vol. 15 (4), 405–421.
- Wiesel, F. – Modell, S. – Moll, J. (2011) Customer orientation and management control in the public sector: a garbage can analysis. *European Accounting Review*, Vol. 20 (3), 551–581.

Appendix. Summary of literature review.

Study	Theories		Dimensions of change observed				Methods				Major conclusions
	Domain theory	Method theory	Formal vs. informal	Evolutionary vs. revolutionary	Progressive vs. regressive	Main data sources	Time dimension	Depth of process analysis	Breadth of analysis		
<i>Denmark</i>											
Mouritsen & Thrane (2006)	Inter-organizational accounting	Actor-network theory	Both	Evolutionary	Both	Interviews, observations and documents.	Real time.	Moderate	Three networks of organisations.	Accounting mediates, shapes and constructs inter-organizational relations.	
Thrane & Hald (2006)	Inter-organizational accounting.	Rational and symbolic perspectives. Actor-network theory.	Formal	Evolutionary	Both	Interviews.	Real time.	Moderate	One supply network.	Accounting as well as integrating supply networking.	
Thrane (2007)	Inter-organizational accounting.	Actor-network theory.	Both	Evolutionary	Both	Interviews and observations	Real time.	Moderate	One network of organisations.	Accounting implicated in network bifurcation and lack of stability.	
Mouritsen et al. (2009)	Accounting and innovation management.	Actor-network theory.	Both	Both	Progressive	Interviews	Real time.	Moderate	Three case studies.	Accounting implicated in short and long transitions.	

Skarbæk & Tryggestad (2010)	Strategic management accounting.	Actor-network theory.	Both	Evolutionary	Both	Interviews and documents.	Real time and retrospective.	High	Single case study.	Accounting plays a performative role in shaping corporate strategy.
Finland										
Hyvönen & Järvinen (2006)	Budgeting	Institutional theory	Formal	Evolutionary	Regressive	Interviews and documents.	Real time and retrospective	High	Single case study.	Change in budgetary reforms moderated by extant institutions.
Järvinen (2006)	Costing	Institutional theory	Formal	Evolutionary	Both	Interviews, documents and observations	Real time and retrospective.	Moderate	Two case studies.	Differences in the adoption of costing systems due to different institutional pressures.
Vaiio (2006)	Performance measurement	Governmentality theory	Both	Revolutionary	Both	Interviews and documents.	Real time.	High	Single case study.	New performance measures rationalising meetings.
Järvenpää (2007)	The role of management accountants	Organisational culture theory	Both	Revolutionary	Progressive	Interviews and documents	Real time and retrospective	High	Single case study.	Change in management accounting practices leading to profound change in the roles of management accountants.

Lehtonen (2007)	Costing	No specific method theory	Formal	Revolutionary	Progressive	Interviews, observations and documents.	Real time and retrospective.	High	Single case study.	Successful implementation of new costing system due to several, interacting organisational factors.
Lukka (2007)	Management accounting and information systems.	Institutional theory.	Both	Evolutionary	Both	Interviews and documents.	Real time and retrospective	Moderate	Single case study.	The use of management accounting leading to loose couplings between rules and routines.
Hyvönen et al. (2008)	Enterprise resource planning.	Actor-network theory.	Both	Evolutionary	Regressive	Interviews and documents.	Real time and retrospective	High	Single case study.	Implementation of enterprise resource planning system reshaping but failing to stabilise notions of profitability.
Kallunki & Silvola (2008)	Costing.	Organisational life-cycle theory.	Formal	Evolutionary	Progressive	Survey	Real time	Low	Multiple industries.	The use of activity-based costing varies with organisational life-cycle stages.
Hyvönen et al. (2009)	Enterprise resource planning	Institutional theory	Formal	Evolutionary	Regressive	Interviews and documents.	Real time	Moderate	Single, embedded case study.	Implementation of enterprise resource planning

Järvinen (2009)	The role of management accountants	Occupational identity theory	Formal	Both	Both	Interviews	Real time and retrospective	Low	Sector-wide study.	Responses to the standardisation of costing dependent on accountants' occupational identities.	leading to little change in control practices.
Rautainen (2010)	Performance measurement	Institutional theory	Formal	Evolutionary	Both	Interviews and documents	Real time and retrospective	Moderate	Two case studies.	Decoupling of performance measurement rules and routines in response to conflicting institutional pressures.	Decoupling of performance measurement rules and routines in response to conflicting institutional pressures.
Hyvönen et al. (2012)	Accounting and outsourcing	Institutional theory	Formal	Both	Both	Interviews and documents.	Retrospective	Moderate	Six case studies	Institutional entrepreneurship instrumental in initiating outsourcing of accounting, but leading to varying outcomes.	Institutional entrepreneurship instrumental in initiating outsourcing of accounting, but leading to varying outcomes.
Kantola & Järvinen (2012)	Costing.	Institutional theory	Formal	Evolutionary	Regressive	Interviews and observations.	Real time and retrospective	Moderate	Sector-wide analysis.	Adoption of diagnosis-related groups accounting determined	Adoption of diagnosis-related groups accounting determined

Rautiainen & Järvenpää (2012)	Performance measurement	Institutional theory.	Formal	Evolutionary	Both	Interviews	Retrospective	Moderate	Two case studies.	Changes in performance measurement linked to competing institutional logics.	by different institutional logics.
Henttu-Aho & Järvinen (2013)	Beyond budgeting	Institutional theory	Formal	Evolutionary	Both	Interviews	Retrospective and real time.	Low	Five case studies.	Beyond budgeting initiatives producing both change and stability.	Beyond budgeting initiatives producing both change and stability.
Mutiganda (2013)	Budgeting	Institutional theory and critical realism.	Formal	Evolutionary	Both	Interviews, documents and observations.	Real time and retrospective.	Moderate	Two case studies.	Budgetary reforms becoming weakly and unevenly institutionalised.	Budgetary reforms becoming weakly and unevenly institutionalised.
Mutiganda et al. (2013)	Inter-organizational accounting.	Institutional theory, negotiated order theory and theories of power.	Formal	Revolutionary	Both	Interviews, documents and observations.	Real time and retrospective	Moderate	Single case study.	Accounting forming a source of power and shaping instrumental ways of thinking.	Accounting forming a source of power and shaping instrumental ways of thinking.
Suomala et al. (2014)	Costing	No specific method theory.	Both	Evolutionary	Progressive	Researcher interventions..	Real time.	High	Single case study.	Methodological reflections on the tensions involved in an interventionist research project.	Methodological reflections on the tensions involved in an interventionist research project.

Taipaleenmäki (2014)	Accounting and new product development	No specific method theory.	Formal	Evolutionary	Both	Interviews and documents	Real time and retrospective	Low	Five case studies.	Relative absence of accounting linked to various technical, economic and social factors.
Järvinen (2016)	General management accounting focus	Institutional theory	Formal	Evolutionary	Both	Observations, interviews and documents.	Real time.	Moderate	Two case studies.	Management accounting practices evolving in response to diverse institutional logics.
Mäntö & Sippola (2016)	Costing	Institutional theory	Formal	Evolutionary	Both	Researcher interventions, survey and interviews	Real time and retrospective	High	Single case study	Lack of use of new costing system due to inflated expectations.
<i>Norway</i>										
Östergren (2006)	Performance measurement	Institutional theory.	Both	Evolutionary	Both	Interviews and documents.	Retrospective	High	Institutional field-level study.	Quality indicators evolving through interplay between field-level actors.
Pettersen & Solstad (2007)	Budgeting	No specific method theory.	Formal	Evolutionary	Regressive	Interviews and survey.	Real time.	Low	Two case studies	Accounting reforms cementing loose couplings between budgeting and operations.

Östergren & Sten-saker (2011)	Beyond budgeting	Agency theory and resource dependence theory.	Formal	Revolutionary	Both	Interviews and documents.	Real time and retrospective	Moderate	Single case study.	Removal of traditional budgets reshaping control practices but also having unintended consequences.
Bourmis-trov & Kaarbøe (2013)	Beyond budgeting	No specific method theory.	Formal	Revolutionary	Progressive	Interviews and documents.	Retrospective	Moderate	Two case studies.	Removal of traditional budgets facilitating the implementation of stretch targets.
Jordan et al. (2013)	Risk management	Actor-network theory	Formal	Evolutionary	Both	Interviews, observations and documents.	Real time	Moderate	Network of three organisations.	Risk maps mediate control of risk management project.
Sweden										
Modell (2006)	Costing.	Institutional and negotiated order theories.	Formal	Evolutionary	Both	Interviews and documents.	Real time and retrospective.	Moderate	Three embedded cases within institutional field.	Cost allocation rules evolving differently depending on the interests at stake.
Adolfsson & Wikström (2007)	Performance management	Institutional theory.	Informal.	Evolutionary	Both	Interviews and observations.	Real time and retrospective.	Moderate	Embedded case studies within one organisation.	Balanced scorecard translated into qualitative quality controls.

Modell et al. (2007)	Performance management.	Institutional theory.	Formal.	Evolutionary	Both	Interviews and documents.	Real time and retrospective.	High.	Multi-level study and single case study.	The evolution of performance management forming a path-dependent pattern.
Aidemark and Funck (2009)	Performance management.	No specific method theory.	Both	Revolutionary	Progressive	Interviews and observations.	Real time	High	Single case study.	Implementation of balanced scorecard fostering change in culture.
Johansson & Siverbo (2009)	Performance measurement.	Institutional, economic and political theories.	Formal	Evolutionary	Both	Survey	Real time	Low	Sector-wide analysis.	Decoupling of relative performance evaluation weakened by economic and administrative factors.
Modell (2009b)	Performance management.	Diffusion theory.	Formal	Evolutionary	Progressive	Interviews and documents.	Real time and retrospective.	High	Single case study.	Performance management innovations bundled into context-specific control practices.
Wahlström (2009)	Risk management	No specific method theory	Formal	Evolutionary	Both	Interviews	Retrospective	Low	Cross-sectional field study in four firms.	External regulation reshaping control practices.

Kraus & Lind (2010)	Performance measurement.	No specific method theory.	Formal	Evolutionary	Both	Interviews.	Real time.	Low	Cross-sectional field study across 15 companies.	Financial performance concerns dominating corporate balanced scorecards.
Abrahamsson et al., (2011)	Accounting and process improvement.	Organisational identity theory	Both	Evolutionary	Both	Interviews, observations and documents.	Real time	High	Single case study.	Accounting involved in a complex, reciprocal interplay with processes of identity formation.
Carlsson-Wall et al. (2011)	Inter-organizational accounting	No specific method theory.	Informal	Evolutionary	Both	Interviews and documents.	Real time and retrospective.	High	One inter-organizational relationship.	Informal inter-organisation controls bypassing formal hierarchies and reshaping intra-organisational controls.
Wiesel et al. (2011)	Resource allocation.	Garbage can theory.	Formal	Evolutionary	Regressive	Interviews, observations and documents.	Real time	High	Single case study.	The politics of customer orientation hampered change in resource allocation practices.
Kraus (2012)	Inter-organizational accounting	No specific method theory.	Formal	Both	Both	Interviews	Retrospective	Moderate	One inter-organizational relationship	Accounting has different impacts

											on inter- and intra-organizational relationships.
Kraus & Strömsten (2012)	Accounting and initial public offerings	Sense-making/sense-giving theory	Formal	Revolutionary	Both	Interviews	Retrospective	Moderate	Comparative analysis across four firms.	Initial public offerings increasing short-termism of accounting controls.	
Modell (2012)	Performance management	Institutional and critical theories.	Formal	Evolutionary	Both	Interviews and documents.	Real time and retrospective.	High	Single case study.	Management accounting practices shaping strategy formation, but also having unintended consequences.	
Englund et al. (2013)	Performance management	Institutional theory	Both	Evolutionary	Both	Interviews, observations and documents.	Real time	High	Single case study.	Ambiguity of accounting conditioning embedded agency.	
Kastberg (2014)	Inter-organizational accounting	Actor-network theory	Both	Evolutionary	Both	Interviews and observations	Real time	High	One inter-organizational network work.	Accounting implicated in a continuous framing process whilst causing overflows.	
Siverbo (2014)	Performance	Actor-network theory	Both	Evolutionary	Regressive	Interviews	Retrospective	Moderate	Network of five organisations	Benchmarking implementation problems inked	

Kasberg & Siverbo (2016)	Accounting and process orientation.	Actor-network theory	Both	Evolutionary	Both	Interviews, observations and documents.	Real time	High	Two case studies	Accounting playing limited role in process orientation but creating overflows.
Kraus & Strömsten (2016)	Inter-organizational accounting	Theories of power and discourse theory.	Formal	Revolutionary	Both	Interviews and documents.	Real time and retrospective.	High	One inter-firm relationship.	Evolving power relationships shaping inter- as well as intra-organizational controls.

What Happens if We Substitute Causality with Preference?

Jan Mouritsen

Copenhagen Business School

Sometimes as a researcher, for example during conference meetings, interactions at conferences or even friendly emails sent to you, you understand that others think about your work in terms that are different from the points that you thought you were producing yourself. When these experiences are good you are happy that people can mobilize your work further than you expected but you may also become surprised because they also propel your work into a setting where it may develop new meanings. Some of these meanings may not all be part of what the researcher has said by her- or himself.

One of such things that can be said of Markus Granlund's, and some of his colleagues', consequent and continuous interest in conditions for accounting or effects of accounting. This is probably partly due to his dual interest in understanding the world and in impacting ('improving') the world. The first ambition requires complexity; the second ambition may be hostile to too much complexity. One answer here may be that the complex argument about the meaning of accounting may be a pragmatic resource for a simpler causal argument. This is a view by which the researcher attempts to attach knowledge about accounting to different situations. The complexity can be reduced if the situations are modelled at a higher level so that a more general model can be developed suggesting simpler conditions under which a complex situation can be situated. For example, one of Markus' interests has been in the role of management accountants as business partners (Granlund and Lukka, 1998). So, some studies show how business partnering is possible and good, others show that it is difficult. So it may be possible to generalize the conditions so as to categories such as (hypothetically) something like the following 2 by 2 matrix.

Table 1 A possible generalization of complex case studies on accountants' roles in organisations

	Accounting knowledge centralized in accounting department	Financial literacy widely spread across the organization
Accounting role to support diagnostic tasks	A preference for accounting to insist on core and logically correct reporting	A preference for accounting to supply truthful and timely information
Accounting role is to support knowledge sharing	A preference for accounting as a business partnering role	A preference for accounting to produce and propose multiple inputs for others to draw on.

Table 1 is not justified by any detailed analysis, but it may be useful to contemplate some of the dilemmas between local meaning and more general causality. It shows that the location of financial literacy and the role of the accounting in organizational decision making may explain the role of the accounting department. I.e. there are two possible moderators – two possible causes – for the role of the accounting department in organizations. Consequently, it is possible to say that Y – the business partner role – is an effect of X1 – the role of accounting to be about learning – and X2 – the financial literacy of managers to be little. These are the two causes. This is a causal explanation. The two causes – X1 and X2 – fill out the explanation of Y, or

(1) X1, X2 -> Y

However, the qualitative meanings-oriented research suggested by the original cases studies may demonstrate other elements in the development of the accounting function. It may focus on the processes of informing where accounting information may turn out not to be important at all (Munro, 1995; Preston, 1986); it may focus on the politics of the CFO to persuade other managers about the relevance of shareholder value (Ezzamel, Willmott and Worthington, 2008); it may focus on the role of accounting in relation to making decisions (Brunsson, 1993). There may be many, many other elements in explaining why the accounting function takes on or is forced to become something. So, the local may be different.

There is a translation between the detailed examples and the simple 2 by 2 model. But there is a trick that may lead us out of the mere question of simplicity versus complexity, between etic and emic explanations. The trick is already in the table. While the 2 by 2 indicates causes as properties of two variables – X1 and X2 – in the table the concept of cause does not appear. Instead there is a concept of

preference (or meaning). This is a concept not often heard in causal research but often present in meanings-oriented case based research. A preference is a subjective or social concept. People have preferences, people have values and people make sense of relevance. This is quite often part of complexity.

Yet, as suggested in the table, preference is not necessarily unrelated to causality. It may even dominate causality. As a language game, it is not difficult to transform a causal explanation into one about preference. So, saying that X leads to Y can easily be rephrased into Y have preference for X without loss of meaning. So, the example of table 1, business orientation has a presence for accounting being oriented towards learning and financial literacy not being highly distributed in the organization. Then business orientation is preferred. However, this does not say that the two variables alone push business orientation along because there could be other preferences. Business orientation would also prefer if the CEO had been on course learning about how modern accounting functions; it would also prefer a highly entrepreneurial CFO; it may also prefer complex ERP technology; it may also prefer that the CFO is a nice guy that other managers wish to talk with; it may also prefer a complex production process; it may prefer that the firm has none or only very few scandals with inconsistency in reporting processes, just as it would prefer that there is no inter-professional competition with other organizational functions such as production or HR to inform managers about the performance of the organization. There may be no limit to preference; it can come in endless forms and the list of preferences cannot be ended.

The implication of the transformation of causality into presences is also a movement from the etic to the emic and from the general to the specific. The movement shows that while a causal explanation often attempts at identifying effective causes, the notion of preference implicates possibilities some of which in certain situations may be overshadowed by other concerns. The movement from causality into preference makes it possible to be concerned with multiplicity at the same time as it may be possible to communicate a certain kind of story. Assuming that table 1 holds, the explanation would be that accounting's role and organizational literacy would fill out the explanation of business orientation; looking at preference finds many other possible ways of making business orientation relevant. Business orientation not only has preference for the mechanisms proposed by the generalization. There may be other preferences.

When there are many preferences, it is increasingly difficult to create a simple causal model. The one proposed in table 1 that business orientation is governed by accounting's role and by the degree of financial literacy suggests that only two preferences count. It has been constructed as a model which contemplates only these two factors. In this sense it generalizes all preferences by omitting many of them them suggesting them somehow to be singular rather than general. Table 1, as a model, allows a reader to see – it sees the world that has been made present to

the reader by modeling activities. It is a mechanism for seeing the world whose complexity is removed. This may be enough for causal accounts. However, there is a difference between seeing and looking. To look for the world is a much more tedious and contemplative task. It raises the question whether the model is really a good one; how it might be used; how it might help communicate a situation which is more complex than model itself. This is the emic analysis of the etic proposition.

Markus' dual interest in understanding and intervening into the world and improving it makes the distinction between causality and preference relevant. When understanding complex phenomena and complexity as such, emic work with a focus on social meanings help provide knowledge and the general insight that complexity always involves reflection on unintended effects and strange and surprising conditions. However, when creating resources for changing and communicating the need for change, it may be more relevant to summarize in models that appear to me more casual and then enable a more explicit justification of the intervention. But this insight also means that during the process, there will be a cascade of 2 by 2s each of which will address a new issue or obstacle observed during the process of intervention. This is the constant modelling of new sets of preferences each of which have possible courses associated with them. A causal model is, in this sense, not an end. It is a proposition that when people attempt to implement it, will require new conditions – or preferences – to be taken into account.

This is my reading – my understanding – that Markus motivates me to engage in. I am not sure that Markus has articulated it like this, but I do know that this is one effect for me of my interaction with his insights.

References

- Brunsson, N. (1993) Ideas and actions: Justification and hypocrisy as alternatives to control. *Accounting, Organizations and Society*, Vol. 18 (6), 489–506.
- Ezzamel, M. – Willmott, H – Worthington, F. (2008) Manufacturing shareholder value: The role of accounting in organizational transformation. *Accounting, Organizations and Society*, Vol. 33 (2–3), 107–140.
- Granlund, M. – Lukka, K. (1998) Towards increasing business orientation: Finnish management accountants in a changing cultural context. *Management Accounting Research*, Vol. 9 (2), 185–211.
- Munro, R. (1995) Managing by Ambiguity: An Archaeology of the Social in the Absence of Management Accounting. *Critical Perspectives on Accounting*, Vol. 6 (5), 433–482.
- Preston, A. (1986) Interactions and arrangements in the process of informing. *Accounting, Organizations and Society*, Vol. 11 (6), 521–540.

Academic Leadership — Getting Emotional

Niina Nummela

Turku School of Economics, University of Turku

On the University of Turku's blog in January 2017, Dean Markus Granlund wrote on what good management and leadership in universities is. He concluded the article with his most important message to university leaders: be yourself. What, however, if the environment prevents you from behaving in the way you would like to? What if you need to put all your efforts into managing your own feelings to fulfil the expectations and requirements of your job? What if you are asked to do things that are very much against your own thinking? When your role demands conflict with your own values, and you need to display emotions which do not match your true feelings, you might experience emotional labour that can have serious consequences on both the personal and organisational levels (Grandey 2000). Let's take a slightly unconventional view, and look at academic leadership from the perspective of emotions.

What are emotions?

Emotions have been investigated across disciplines for decades, and perhaps because of this multi-disciplinarity, scholars have found it difficult to agree on a single, overarching definition of the concept (e.g. Mulligan & Scherer 2012). Here, emotions are understood as mental states of (action) readiness that arise from the cognitive appraisals of events and the social interaction of thoughts. Emotions have a phenomenological nature: they are accompanied by physiological processes and are often expressed physically (Bagozzi, Gobinath & Nyer 1999). They are reactions to stimuli and lead to behaviour (Nummenmaa 2010). Emotions can be classified as positive (e.g. happiness, pride, relief, love), negative (e.g. anger, fright, anxiety, guilt, shame, sadness, envy, jealousy, disgust) and mixed (e.g. hope, compassion, gratitude) (Lazarus 1993). All types of emotions can have either positive and negative consequences depending on various contingency factors.

Although similar, basic emotions can be considered to be universal (e.g. Laros & Steenkamp 2005), the norms for experiencing and displaying emotions vary among different cultures (Eid & Diener 2001). The universality of emotions has been challenged, especially by social scientists who argue that emotions are socially constructed processes and that culturally different models of self in relation

to others make it possible to observe cultural differences in relation to emotions (Boiger & Mesquita 2012). Therefore, emotions and all forms of emotion regulation can be understood only, and should be studied, in connection with their cultural context (Mesquita & Albert 2007; Mesquita & Delvaux 2013).

Emotions can vary due not only to their cultural embeddedness but also to the history of interactions and future projections of where they might lead (Boiger & Mesquita 2012). Employees in diverse cultural contexts adjust their emotions to the needs and expectations of others at work, just as they do at home; therefore, it is essential that companies operating internationally take this into account when introducing universal rules across their organisation (Mesquita & Delvaux 2013).

Emotions in organisations

Emotions have been of scholarly interest for decades in a number of disciplines, especially in psychology but also in medical science, the social sciences and linguistics. Interest in emotion research emerged late among management scholars, mostly during the past 15 years (Ashkanasy & Humphrey 2011). Emotions in the workplace have often been studied with affective events theory (AET) (Ashkanasy & Daus 2002), which links together workplaces, work-related events, emotions and employee behaviour. AET can be applied to organisations on five levels of analysis: within-person, between persons, interpersonal interactions, group and organisation-wide (Ashkanasy 2003). Studies on how to manage emotions at work have concentrated on improving emotional intelligence and controlling the level of emotional labour. Unfortunately, much of the research is inconsistent and scattered, mostly due to inadequate definitions of core concepts and researchers' failure to recognise the role of context in emotions (Gooty et al. 2009).

Scholars, however, do agree on a few issues. For example, emotions are considered to be contagious. Observing others' emotional reactions might cause the observer to experience similar emotions (Nummenmaa 2010). Thus, whether we like it or not, both positive and negative emotions spread efficiently in organisations. Managers' task then is to steer emotions so that they support positive identity-building in the organisation (Raitis et al., forthcoming).

At the same time, we know that employees also tend to model themselves and their emotions based on top managers (Ashkanasy & Daus 2002); consequently, managers set the mood and atmosphere of the organisation. In other words, managers are the key actors in helping employees cope with work-related stress. Some types of stress have positive impacts, and others negative (Lazarus 1993), but it is fair to say that the academic world has undergone such turmoil during the past decade that negative emotions are dominant, and the unfavourable consequences of stress are visible.

Universities as a platform for emotions

Although politicians sometimes argue differently, universities are not similar to other types of organisations. Work in universities centres on the creation and dissemination of new knowledge—activities not common in other types of knowledge-intensive organisations (cf. Alvesson 2001). Additionally, faculty members are strongly driven by intrinsic motives. Academics typically see universities as independent organisations that have commonly accepted aims and in which actions are based on trust (Välikangas 2012). This classical ideal has been challenged by the introduction of management practices, which are perceived to conflict with the fundamental values of universities, such as collegiality, academic freedom and scholarship (Bolden et al. 2014). Also, the cultural memory of universities has been ignored (Nyman 2017). This has led to increasing role ambiguity and conflict among university employees, had impacts on faculty job satisfaction (Schulz 2013) and increased emotional labour (Ogbonna & Harris 2004).

The experienced tension between different aspects of academic life gives rise to stress and dysfunction (Bolden et al. 2014) and is the source of a number of emotions. All members of academic communities need to regulate their emotions, especially negative ones, to maintain the balance needed for personal well-being (Kokkonen 2010). However, such forced emotion regulation (behaviour to increase, maintain or decrease emotion) (Gross 1999) might lead to negative consequences, such as emotion exhaustion (Hochschild 1983). A key mechanism linking emotion regulation to workplace outcomes is emotional dissonance, which results from a mismatch between publicly displayed and subjectively experienced emotions (Cote et al. 2008). In this respect, one group in the academic community under considerable emotional pressure is deans and other academic leaders, such as department heads.

In universities, academic leadership is tightly interwoven with formal institutional roles, although leadership also exists elsewhere in the organisation (Bolden et al. 2014). From this point of view, the key academic leader is the dean, whose task is especially challenging in a turbulent environment. Gallos (2002) described deans as classic middle managers with enormous responsibilities, insufficient resources and little positional power and authority. Unfortunately, this description continues to fit very well the current situation of shrinking governmental funding and strong authority invested in universities' top management. The dean is the messenger between top management and the faculty, often communicating bad news. At the same time, the dean must motivate the faculty and staff to achieve superior performance. Emotional dissonance in practice.

Being an academic leader requires not only managing activities but also dealing with people. This aspect of the work is crucial in organisations which have almost no other assets than human capital. However, those working in universities are not

easy to lead. They are clever, intelligent and creative—but sometimes also arrogant, complacent and easily offended. The Dean of Turku School of Economics Markus Granlund referred to exercising leadership in a university as ‘*herding cats*’ in his opening speech at the Top Management Forum in March 2017. The former Rector of the University of Tampere Jorma Sipilä used an even stronger metaphor describing his prior work as ‘*one hand on a champagne glass, the other one in deep shit*’ (Sipilä 2007, 188). Mission impossible, some would say. Some university professors, though, voluntarily accept the task, perhaps not fully understanding the related emotional pressures.

Emotion management in a university

It has been argued that universities survive in the current turbulent environment only through the renewal of processes and practices. This requires novel, dynamic leadership, in which academic leaders are proactive, well-networked change agents who support multidisciplinary activities (Stähle & Åberg 2012). Leaders need to be prepared to react to sudden, unexpected events and to prioritise what is and is not worth action (Sipilä 2007). It also helps for leaders to understand that, to protect their own interests, it is not necessary that they are always involved in everything. A future academic leader is good at balancing, whether it is a question of autonomy vs. collegiality, individuality vs. collaboration or stability vs. change.

I further argue that a future academic leader needs to be emotionally intelligent. Here, emotional intelligence refers to the ability to monitor and discriminate among the feelings and emotions of oneself and others and to use this information to guide one’s thinking and actions (Salovey & Mayer 1990). Emotionally intelligent leaders are aware of their own emotions, are able to regulate them and have internal motivation, empathy and social skills (Greenockle 2010, Goleman 1995). These leaders use flexible empathy and sympathy to guarantee smooth social interactions (cf. Nummenmaa 2010).

Indeed, studies demonstrate that emotional intelligence is linked to effective leadership in higher education. For example, Parrish (2015) found that leaders with strong emotional intelligence are sensitive and responsive to others’ emotional needs and actions, and their empathy inspires and guides others to better manage themselves. In other words, efficient academic leaders are good at emotion regulation and controlling emotional dissonance, resulting in a positive role model for others. Such behaviour leads to increased emotional identification among employees, which, in turn, is associated with positive feelings about one’s membership, including pride, enthusiasm, and a sense of affiliation or belongingness with oth-

ers. Negative emotions, though, might lead to dis-identification or decreasing levels of identification (Raitis et al., forthcoming). Well-performing academic leaders seem to be able to benefit from the contagiousness of positive emotions.

Earlier research indicates that some individuals are better at reading and managing emotions than others (George 2000). None of us, though, is perfect. How then can academic leaders improve their emotional competence? The starting point is better self-awareness: when you understand yourself, you also better understand others' emotions and manage your own emotions (Offerman et al. 2004). These competences are especially important in team environments, such as research groups, where the importance of social skills is decisive. Given the calls for multidisciplinary research projects, the need for these capabilities can be expected to increase in the future.

Discussion

Reflecting on his previous work, Sipilä, the former rector of the University of Tampere, concluded:

“Management [in a university] is easy. Just promote 200 issues. And resist five. As long as you do it all proficiently.” (Sipilä 2007, 182)

Well then, what issues should be promoted in the future? Which should be resisted? A good start could be to support the core tasks of the university: research, education and impact. For example, Turku School of Economics has formulated its mission as follows:

“Our mission is to produce internationally high-quality intellectual contributions based on both theoretical and applied research, drawing on discipline-based and interdisciplinary scholarship. We aim to educate responsible future leaders for national and international businesses and the Finnish public sector.”

Clearly, these, along with the wellbeing of employees, are issues worth promoting. At the same time, academic leaders now and in the future need to fight against the different forms of stupidity that distract us from the mission of the university (Alvesson & Spicer 2016). These battles, though, might be frustrating and arouse negative emotions among faculty and staff. Therefore, we cannot expect leaders' need for emotional regulation to decrease—thus, being oneself is still not always possible.

Additionally, the turbulence in the academic world increases the need for employees to trust their academic leaders. The so-called post-truth era has created a

novel context for academic leadership as people trust not facts but their personal emotions, which they can feel to be real (de Jong 2017). Therefore, the interaction between academic leaders and faculty members cannot be based only on facts but also needs to include a component that is emotionally attractive. Ignoring negative emotions is not a wise strategy; it will only worsen the situation (Pearson 2017).

In addition to taking care of the wellbeing of the faculty and staff, future academic leaders need to take care of themselves. The best strategy naturally is to ensure experiences of positive emotions, so leaders should encourage enjoying personal achievements. It is easy to state that negative emotions should be avoided but difficult to do so. However, this advice should be taken seriously. In the worst case, long-term forced emotional regulation can lead to emotional hangover, a state in which past emotional experiences affect future behaviour (Tambini et al. 2017). Thus, being aware of and expressing one's emotions is not a weakness; it is a ventilator which should be used regularly. And being a bit selfish is not always a bad thing.

References

- Alvesson, M. (2001) Knowledge work: Ambiguity, image and identity. *Human Relations*, Vol. 54 (7), 863–886.
- Alvesson, M. – Spicer, A. (2016) *The stupidity paradox*. London: Profile Books.
- Ashkanasy, N. M. – Daus, C. S. (2002) Emotions in the workplace: The new challenge for managers. *Academy of Management Executive*, Vol. 18 (1), 76–86.
- Ashkanasy, N. M. (2003) Emotions in organizations: A multilevel perspective. In: *Multi-level issues in organizational behaviour and strategy* (Research in multi-level issues, Vol. 2), ed. by F. Dansereau – F. J. Yammarino, 9–54. Emerald Group Publishing.
- Ashkanasy, N. M. – Humprey, R. H. (2011) Current emotion research in organizational behaviour. *Emotion Review*, Vol. 3 (2), 214–224.
- Bagozzi, R. P. – Gopinath, M. – Nyer, P. U. (1999). The role of emotions in marketing. *Journal of the Academy of Marketing Science*, Vol. 27 (2), 184–206.
- Boiger, M. – Mesquita, B. (2012) The construction of emotion in interactions, relationships, and cultures. *Emotion Review*, Vol. 4 (3), 221–229.
- Bolden, R. – Gosling, J. – O'Brien, A. (2014) Citizens of the academic community? A societal perspective on leadership in UK higher education. *Studies in Higher Education*, Vol. 39 (5), 754–770.
- Cote, S. – Moon, S. – Miners, C. T. H. (2008) Emotion regulation in the workplace. In: *Research Companion to Emotion in Organizations*, ed. by N. M. Ashkanasy – C. L. Cooper, 284–300. Cheltenham: Edward Elgar.
- de Jong, T. (2017) Presentation at Top Management Forum, Turku School of Economics. Turku, Finland, March 15, 2017.
- Eid, M. – Diener, E. (2001) Norms for expressing emotions in different cultures: Inter- and intranational differences. *Journal of Personality and Social Psychology*, Vol. 81 (5), 869–885.
- Gallos, J. V. (2002) The dean's squeeze: The myths and realities of academic leadership in the middle. *Academy of Management Learning and Education*, Vol. 1 (2), 174–184.
- George, J. M. (2000) Emotions and leadership: The role of emotional intelligence. *Human Relations*, Vol. 53 (8), 1027–1055.

- Goleman, D. (1995) *Emotional intelligence: Why it can matter more than IQ*. New York: Bantam Books.
- Gooty, J. – Gavin, M. – Ashkanasy, N. (2009) Emotions research in OB: The challenges that lie ahead. *Journal of Organisational Behavior*, Vol. 30 (6), 833–838.
- Grandey, A. A. (2000) Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, Vol. 5 (1), 95–110.
- Greenockle, K. M. (2010) The new face in leadership: Emotional intelligence. *Quest*, Vol. 62 (3), 260–267.
- Gross, J. J. (1999) Emotions and emotion regulation. In: *Handbook of personality: Theory and research*, ed. by L. A. Pervin – O. P. John, 525–552. New York: Guilford Press.
- Hochschild, A. R. (1983) *The managed heart*. Berkeley, CA: University of California Press.
- Kokkonen, M. (2010) *Ihastuttavat, vihasuttavat tunteet. Opi tunteiden sääntelyn taito*. Jyväskylä: PS-Kustannus.
- Laros, F. J. – Steenkamp, J. B. (2005) Emotions in consumer behaviour: A hierarchical approach. *Journal of Business Research*, Vol. 58 (10), 1437–1445.
- Lazarus, R. (1993) From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, Vol. 44 (1), 1–21.
- Mesquita, B. – Albert, D. (2007) The cultural regulation of emotions. In: *The handbook of emotion regulation*, ed. by J. J. Gross, 486–503. New York: Guilford Press.
- Mesquita, B. – Delvaux, E. (2013) A cultural perspective on emotion labor. In: *Emotional labor in the 21st century: Diverse perspectives on emotion regulation at work*, ed. by A. A. Grandey – J. M. Diefendorff – D. E. Rupp, 251–272. New York: Psychology Press/Routledge.
- Mulligan, K. – Scherer, K. (2012) Toward a working definition of emotion. *Emotion Review*, Vol. 4 (4), 435–457.
- Nummenmaa, L. (2010) *Tunteiden psykologia*. Helsinki: Tammi.
- Nyman, J. (2017) Muistiton yliopisto.
Available at: <<http://blogi.professoriliitto.fi/jopi-nyman/>>, retrieved March 15, 2017.

- Offerman, L. R. – Bailey, J. R. – Vasilopoulos, N. L. – Seal, C. – Sass, M. (2004) The relative contribution of emotional competence and cognitive ability to individual and team performance. *Human Performance*, Vol. 17 (2), 219–243.
- Ogbonna, E. – Harris, L. C. (2004) Work intensification and emotional labour among UK university lecturers: An exploratory study. *Organization Studies*, Vol. 25 (7), 1185–1203
- Parrish, D. R. (2015) The relevance of emotional intelligence for leadership in a higher education context. *Studies in Higher Education*, Vol. 40 (5), 821–837.
- Pearson, C. M. (2017) The smart way to respond to negative emotions at work. *MIT Sloan Management Review*, March 13, 2017. Summary available at: <<http://sloanreview.mit.edu/article/the-smart-way-to-respond-to-negative-emotions-at-work/>>, retrieved March 16, 2017.
- Raitis, J. – Hassett, M. – Harikkala-Laihinen, R. – Nummela, N. (forthcoming, 2017) Finding positivity during major organisational change – In search of triggers of employees’ positive perceptions and feelings. In: *Emotions and identity* (Research on emotion in organizations, Vol. 13), ed. by W. J. Zerbe – C. E. J. Härtel – N. Ashkanasy – L. Petitta. Emerald Group Publishing.
- Salovey, P. – Mayer, J. D. (1990) Emotional intelligence. *Imagination, Cognition, and Personality*, Vol. 9 (3), 185–211.
- Schulz, J. (2013) The impact of role conflict, role ambiguity and organizational climate on the job satisfaction of academic staff in research-intensive universities in the UK. *Higher Education Research & Development*, Vol. 32 (3), 464–478.
- Sipilä, J. (2007) *Valta yliopistossa*. Tampere: Vastapaino.
- Stähle, P. – Åberg, L. (2012) Voiko yliopiston uudistumista johtaa? In: *Innostava yliopisto: Kohti uudistavaa yliopistojohtamista*, ed. by P. Stähle – A. Ainamo, 26–255. Helsinki: Gaudeamus.
- Tambini, A. – Rimmele, U. – Phelps, E. A. – Davachi, L. (2017) Emotional brain states carry over and enhance future memory formation. *Nature Neuroscience*, Vol. 20 (2), 271–278.
- Välikangas, L. (2012) Kohti yliopistojohtamisen innovaatiota. In: *Innostava yliopisto: Kohti uudistavaa yliopistojohtamista*, ed. by P. Stähle – A. Ainamo, 78–96. Helsinki: Gaudeamus.

Logistics Costs and Key Business Indicators of Finnish Companies

Lauri Ojala, Juuso Töyli, Harri Lorentz, Tomi Solakivi, Sini Laari, Jarmo Malmsten, Tuomas Kiiski, Ninni Lehtinen, Elina Ojala and Tuulia Kuusinen¹

Turku School of Economics, University of Turku

Introduction

On the nature of logistics activities, performance and costs

Logistics in a firm – or in an organisation - comprises a large number of activities and processes that deal with the management of material, information and monetary flows through it, typically in a broader supply chain/network context.

Starting from the “upstream” end of supply chains, these tend to include various supply management, purchasing and inbound logistics tasks, followed by decisions and process to manage the materials once under the control of the firm.

Effective and efficient logistics, or supply chain management, is also essential in matching the supply of a firm’s production in terms of variety, quantity, quality, location, timing and costs with the type and scope of demand at the marketplace, often labelled as the outbound logistics or “downstream” flow.

In addition, logistics caters for firms’ reverse material flows (such as returned sales items or other materials used in the delivery process). Solutions to enable firms to realise resource-efficient circular processes (such as recycling and minimising the environmental footprint) are becoming increasingly important.

As such, logistics or supply chain operations are typically process-driven, and their measurement relies often on activity-based Key Performance Indicators, or KPIs. This is the more the case the larger the manufacturing or trading firm – or any other type of organisation - with materials or process flows to manage.

Thus, the structure of logistics costs tend to be aligned more with Activity-Based Costing and other process-based principles rather than “traditional” accounting ones. As a result, the standard income statement or balance sheet of a

¹ The first seven co-authors are staff with a Doctorate within the subject of Operations & Supply Chain Management (O&SCM) at the Turku School of Economics. The three latter co-authors are students majoring in O&SCM employed as research assistants in the team preparing the Finland State of Logistics 2016 study (Note that Ms. Ojala is no family relation to Prof. Ojala).

firm – and the underlying accounting data collection - is ill-suited for pragmatic logistics needs at firm level.

Why measure logistics performance and costs?

Logistics expenditure in EU 30 (EU28 + Norway and Switzerland) was estimated at € 960 billion in 2014 including in-house logistics activities and services bought from the market. About 44 % of this comprised cost for transport, 24 % for cost of capital tied in inventory, 23 % for warehouse management, followed by 5 % for order processing and 4 % for logistics administration. (Kille et al. 2015). Kille and Schwemmer (2014) estimated that logistics expenditure in Finland in 2012 was approximately € 22.3 billion, whereas Solakivi et al. (2016) came to an estimate of € 23.4 billion inside Finland using similar definitions and limitations.

Apart from its sizeable macroeconomic effect, well-functioning logistics has a significant impact on firms' competitiveness, as evidenced in the 2012 Edition of "Finland State of Logistics" (FSoL): Finnish wholesale and retail firms estimated that over 1/3 of their competitiveness depends on logistics; this share was over 1/2 for the large trading firms. Corresponding shares among manufacturing firms were over 1/5 for all, and over 1/3 for larger firms, respectively. (Solakivi et al. 2012).

Logistics industry or logistics expenditure does not constitute any macro level statistical unit in the National Accounts either. Logistics is done both by in-house resources and through bought services, and in a statistical sense, it is virtually impossible to distinguish these two in a meaningful way. Furthermore, standard industry classifications for the transport sector includes both passenger and freight transport, which complicates comparisons too.

Finland's trade logistics performance in a worldwide context

Figure 1 illustrates World Bank's Logistics Performance Index LPI 2016, which measures logistics performance in international trade. In short, this means how "easy" or "difficult" countries are regarded by international logistics professionals and freight forwarders to organise trade to and from an individual country.

The LPI was first published in 2007 initiated by Prof. Lauri Ojala and his team (notably by PhD Student Tapio Naula, co-author also in the LPI 2016 report). The worldwide data collection for the LPI 2007 was done at TSE.

Since its inception in 2007 and through the subsequent LPI reports published in 2010, 2012, 2014 and 2016, the LPI has become a standard reference on trade logistics performance worldwide. It is also used as a component in World Economic Forum's "Enabling Trade Index", latest of which was published in 2016. It

also constitutes part of “EU Transport Scoreboard”, which was first launched in 2014 and updated in 2016.

Finland was ranked 15th in LPI 2016. The ranking improved somewhat from year 2014, when the rank was 24, but Finland was also ranked 3rd in 2012 (World Bank 2014; 2016). The assessments of Finland’s performance in different components of the LPI in Figure 1 are largely in line with the evaluations by Finnish respondents in Finland State of Logistics 2016 survey. (Solakivi et al. 2016).

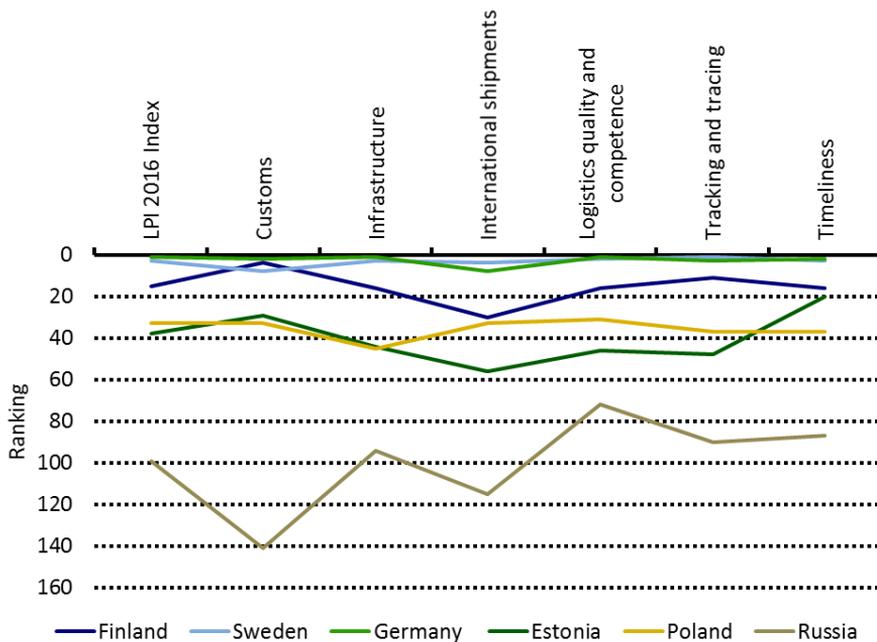


Figure 1 The overall ranking and its components of Finland and some peer countries in Logistics Performance Index 2016. Y-axis indicates rankings among 160 countries (World Bank 2016)

In terms of trade logistics performance, Finland is among the top 10 % countries of the world. This is excellent result indicates the high quality and reliability of logistics services available for Finnish exports and imports, but also domestically.

Policy impact of logistics performance and cost measurements

The collection and analysis of firm-level data on logistics performance and costs has proven invaluable also in a policy-making context. Given the linkage between firms’, and by extension, countries’ competitiveness and logistics efficiency, almost every developed and developing country has woken up to the impact what

well-functioning business environment for logistics and related administrative services mean to countries prosperity.

The World Bank's LPI has had a substantial impact to put Trade and Transport Facilitation (TTF) issues on the policy agenda of numerous countries as well as international organisations, such as all the Development Banks (World Bank, ADB, AfDB, EBRD, EIB), the EU, several UN bodies, the OECD and others, such as the World Economic Forum, as mentioned in Chapter 1.3.

The methodological development of TTF analysis and its practical applications (See e.g. Arnold et al. 2010) and on self-reported surveys done by the TSE team in particular, have had wide-reaching implications in various parts of the world. This includes the application of FSoL-inspired surveys in e.g. the Baltic States (notably in Estonia), Greece, Malaysia, Namibia, Vietnam and Western Balkans.

Over the past decade, the TTF expertise of TSE team members has also been sought after in a number of country-specific or regional analyses including, for example, Albania, Belarus, Greece, Mexico, Turkmenistan, Western Balkans and Zambia. In addition, several National Logistics Observatories have been set up in 2016 in e.g. Chile, Argentina and Mexico, where TSE expertise has been relied upon (see e.g. Guerrero et al. 2015).

In short, the policy impact of the TSE team's work has been substantial in terms of its business impact within the logistics industry and beyond, and reaching out to senior levels of Government across a wide geographical coverage. Almost all of this work is outside the strictly academic publication context, but belong to University's outreach activities in a truly multiple sense of the term.

“Finland state of logistics” (FSoL) reports

The state and view on future development in Finnish logistics has regularly been examined for over 20 years. The Finnish Ministry of Transport and Communications (MoTC) conducted their first Finland State of Logistics in 1992. Ever since 2006, the responsibility of conducting the survey has been on Logistics research team at Turku School of Economics. This was done in cooperation with the MoTC until the 2012 edition, and with the Finnish Transport Agency in 2014 and 2016 editions.

The method of conducting the survey has remained the same, which allows for comparability across several periods from year 2005. Finnish trading and manufacturing companies are the target group of the FSoL, as well as logistics companies. The number of respondents has been over 2,700 at best. By using turnover as a measurement unit, the surveys have covered most of the target group.

Like in previous reports, the main industries observed in FSoL 2016 include Finnish i) manufacturing firms (including construction); ii) firms in wholesale and

retail trade; and iii) firms providing logistics services. The data was collected with online surveys between April and May 2016.

The target population in FSoL 2016 was 22,946 respondents. 1,146 answers were accepted, giving a response rate of 5.0 % including micro firms. However, the response rate among medium-sized and large firms was remarkably high.

Table 1 Respondent companies of FSoL 2016 by industry type and company size

	Manufacturing and construction	Trade	Logistics service provider	Consultancy	Teaching and research	Total
2016	381	137	524	65	39	1146
2014	504	398	617	64	148	1731
2012	875	773	684	121	279	2732
2010	570	435	545	102	161	1813
2009	996	794	915			2705
2006	985	788	482			2255

As such, the FSoL data comprises the most comprehensive national logistics survey dataset in the world both in absolute and in particular in relative terms. The unique coverage and depth of the data has also enabled the O&SCM research team – in various constellations – to publish over 15 refereed journal articles and numerous conference papers. The data has also contributed to at least four PhD Dissertations at the TSE since 2013. (See Appendix 1.)

Development of firms' performance based on the survey results

Finland State of Logistics reports have studied the performance of firms in different ways already for 25 years. Since 2005, logistics costs and key indicators of the activities have been followed mainly by using comparable methods, which enables the creation of time series and comparison of developments in time, for example in relation to development of costs. The FSoL surveys also include questions concerning respondents' views on the development of the firm's economic and logistical performance. The development of manufacturing and trade companies' as well as logistics companies' performance outlined below.

Logistics costs in manufacturing and trade

Comparable data on logistics costs using the same method have been collected in the FSoL surveys since year 2005. Figure 2 illustrates logistics costs in Finnish manufacturing and trading firms in 2005-2015 based on FSoL survey data, which is weighted by firm and industry turnover.

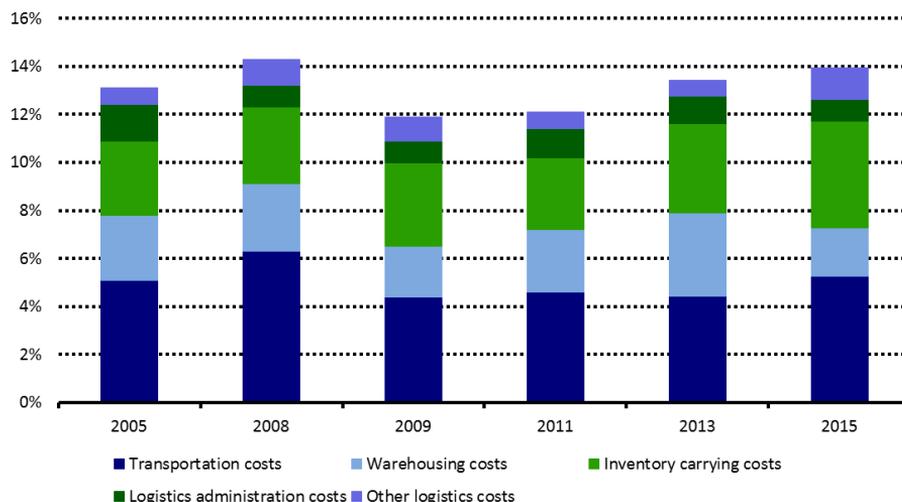


Figure 2 Logistics costs in manufacturing and trade as a percentage share of the turnover weighted by firm and industry turnover in 2005-2015

Logistics costs have risen slightly when compared with the costs in 2013. Logistics costs in manufacturing and trade were on average 14.0 % of the turnover in 2015, while in 2013, their share was 13.4 % of the firm turnover on average.

Compared to the year 2013, the logistics costs that have increased the most are transportation costs, which on average accounted for 5.3 % of the turnover in 2015, whereas in 2013, their share was 4.4 %. Inventory carrying costs have also risen in comparison to 2013 and were 4.5 % of the surveyed companies' turnover in 2015 (3.7 % in 2013). A similar development can be observed also internationally. For example, in the United States, firms' inventories have been growing since 2009 (CSCMP & AT Kearney 2016).

On the other hand, warehousing costs have decreased from 3.5 % in 2013 to 2.0 % in 2015. Thus, the overall inventory costs have slightly decreased. The cost rise is mainly explained by increased transport costs.

Key indicators in manufacturing and trade

In addition to logistics costs, Finland State of Logistics reports have followed key indicators of companies' business activities. Such indicators include delivery time, share of perfect customer deliveries and payment times since 2005. Following sub-chapters deal with, for example, payment times of firms and cash-to-cash cycle time as well as indicators related to timeliness of shipments by different background variables.

Payment times and cash-to-cash cycles

Based on the survey results, indicators related to firms' cash-to-cash cycle time have further lengthened for both manufacturing and trade companies (Figure 3 and Figure 4). Firms store the products longer, receive payments from clients later and similarly, pay suppliers later than before. The long-term development of Finnish companies' payment times has been studied by Lorentz et.al. (2016), for example.

In manufacturing industry, the average cash-to-cash cycle time has become slightly shorter compared to the year 2014, whereas for trade firms, the cash-to-cash cycle time has further grown. Manufacturing firms hold the goods in the inventory on average for 60 days, while in 2014 the average inventory days of supply was 59 days. Similarly, manufacturing companies receive payments from clients in 31 days and pay their suppliers in 28 days on average. Thus, the average cash-to-cash cycle time is about 62 days.

Similarly, trade industry firms' inventory holding time is on average 51 days, which is 9 days less than in 2014. It seems that payment time to suppliers is longer (27 days) than payment time from customers (21 days), which may be explained by the fact that many trade industry companies receive payments from their customers immediately.

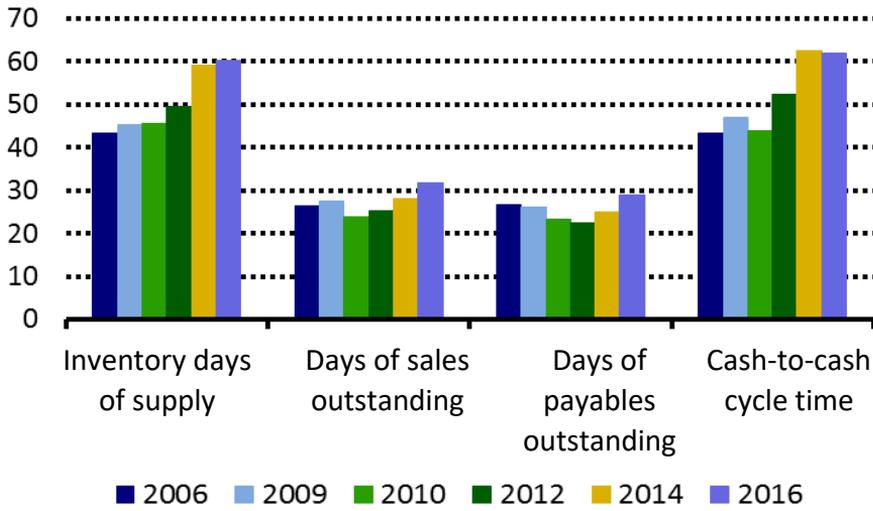


Figure 3 Development of payment times and cash-to-cash cycle time in manufacturing in 2006-2016

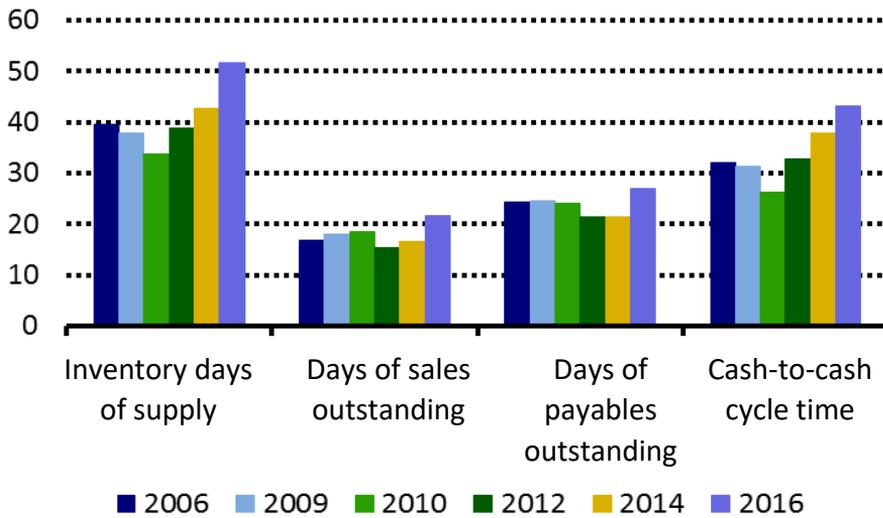


Figure 4 Development of payment times and cash-to-cash cycle time in wholesale and retail trading firms in 2006-2016

However, average cash-to-cash cycle times are only a part of the whole picture. It should be kept in mind that there is great variation between industries as well as inside the same industry on how cash-to-cash cycle time and its components are formed.

Delivery timeliness

To measure the performance of firms' operations, respondents were asked to evaluate, for example, delivery timeliness for company's own shipments and for their suppliers'. Figure 5 presents manufacturing companies' assessments of their own as well as of their suppliers' delivery timeliness grouped by company size. When compared internationally, the delivery timeliness of Finnish manufacturing firms seems to be of rather high level and variation between different-sized companies is low.

Large manufacturing companies achieve delivery timeliness of over 92 %, medium-sized companies around 92 % and small companies slightly above 91 %. Surprisingly, the results indicate that micro enterprises are performing best in delivery timeliness, their on-time shipments reaching a share of over 93 %.

In trade, the delivery timeliness seems to be slightly better than in manufacturing (Figure 6). One reason for this is that in trade, the delivery timeliness does not depend on manufacturing process, which is the case in manufacturing industry. In addition, customer relationships are different. Thus, it is not meaningful to compare timeliness of shipments directly between these two industries.

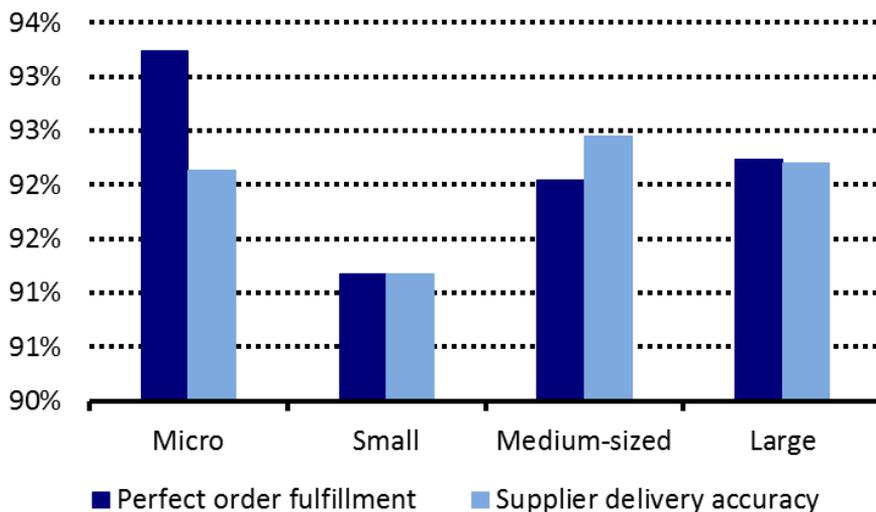


Figure 5 Manufacturing firms' assessments of their own and their suppliers' delivery timeliness as a percentage share of on-time deliveries of all shipments in 2015

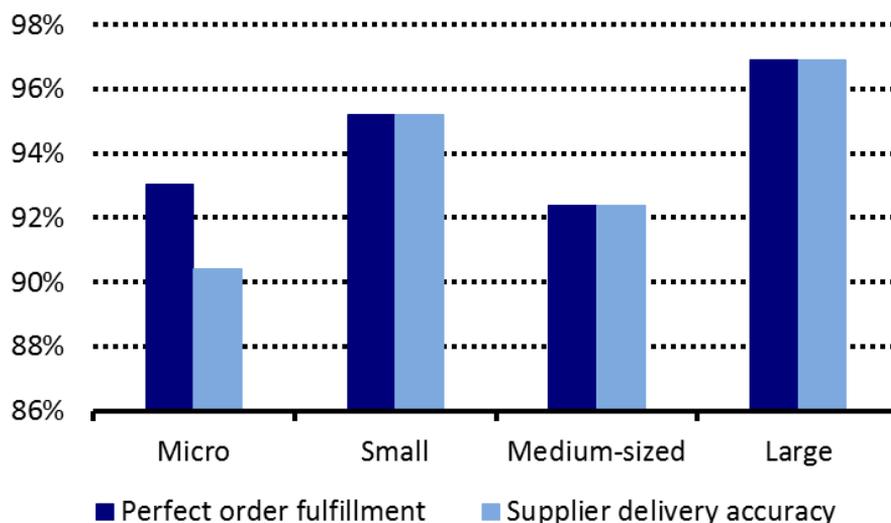


Figure 6 Trade firms' assessments of their own and their suppliers' delivery timeliness as a percentage share of on-time deliveries of all shipments in 2015

It can be stated that in general, the average delivery timeliness of Finnish firms is quite good. However, differences between industries can be observed, which are elaborated further in the FSoL 2016 report (Solakivi et al. 2016).

Conclusion

In summary, the key findings on logistics KPIs and costs in the FSoL 2016 survey indicated that the operational efficiency of Finnish firms in logistics is quite high. Logistics costs in relation to firms' turnover are somewhat high, but clear-cut cross-country comparisons are not possible due to differences, for example, in data collection methods, definitions, sample and target groups and industrial structures. (Rantasila and Ojala 2012 and 2015, Solakivi et al. 2016)

In an international comparison on trade logistics performance provided by The World Bank's Logistics Performance Index, Finland has stabilised its position in the top 10 % of the 160 + countries surveyed, which is a very good result (World Bank 2016).

Apart from substantial firm and industry level impacts, the collection and analysis of firm-level data on logistics performance and costs has significant policy-making impacts, too. Given the linkage between firms', and by extension, countries' competitiveness and logistics efficiency, almost every developed and developing country has begun to realise better how important well-functioning business

environment for logistics and related administrative services are for their prosperity.

Here, the World Bank's LPI has had a substantial impact to put Trade and Transport Facilitation (TTF) issues firmly on the policy agenda of numerous countries as well as international organisations. The methodological development of TTF analysis and its practical applications as well as surveys done by the TSE team have also had wide-reaching implications across the world. These include FSoL-inspired logistics surveys in, for example, the Baltic States (notably in Estonia), Greece, Western Balkans and Namibia, and country-specific or regional analyses conducted in countries as diverse as Albania, Belarus, Greece, Mexico, Turkmenistan, Ukraine, Western Balkans and Zambia, for example.

As mentioned before, the policy impact of the TSE teams' work has been substantial both when it comes to its level (typically at Governmental level and involving numerous International Organisations) and its geographic coverage (a large number of countries virtually in every Continent). Almost all of this work has been practiced outside strictly academic contexts. Instead, this could be attributed as University's outreach activities at its best.

The rather unique combination of both substantial academic, practitioner and policy-making contributions by the TSE Operations & Supply Chain Management team is also a testimony of the strength of good teamwork, which has been achieved by sharing knowledge both internally and externally, and by sharing the burden and rewards within the team.

In conclusion, one could also see a parallel between (Management) Accounting and Logistics as disciplines within Business Administration or in Business Schools. Managed well, both are a necessary condition for firms to thrive, but neither constitutes a sufficient condition for success on its own, as exemplified below.

No firm is established merely for the joy of "counting beans" – unless one is talking about an accounting firm, perhaps. In an equal measure, no one in his or her right mind starts a firm to ship and store goods just for the fun of it. But both disciplines and the set of skills they represent are needed for almost any type of business to prosper.

With this small contribution of ours, we would like to thank you, Markus, for the excellent work you have done both within your discipline as an established and internationally distinguished Professor, and in particular as the Dean of the Turku School of Economics over the past years during a period, which has been quite challenging at times.

Finally, on behalf of our entire research team, please, accept our sincere congratulations for your 50th Anniversary, Markus!

Abbreviations and definitions

FSoL	Finland State of Logistics studies (in Finnish: Logistiikkaselvitys)
KPI	Key Performance Indicator
LPI	World Bank's Logistics Performance Index
Medium-sized enterprise	Defined here as a company with a turnover between 10-50 million euros per year
Large enterprise	Defined here as a company with a turnover over 50 million euros per year
Micro enterprise	Defined here as a company with a turnover below 2 million euros per year
O&SCM	Operations & Supply Chain Management; the subject at Turku School of Economics (formerly called Logistics)
Small enterprise	Defined here as a company with a turnover between 2-10 million euros per year
TSE	Turku School of Economics
TTF	Trade and Transport Facilitation

References

- Arnold, J. – Arvis, J.-F. – Mustra, M.A. – Horton, B. – Carruthers, R. – Ojala, L. (2010) *Trade and Transport Facilitation Assessment: A Practical Toolkit for Country Implementation*, World Bank. <<http://documents.worldbank.org/curated/en/967151468325281350/Trade-and-transport-facilitation-assessment-a-practical-toolkit-for-country-implementation>>, retrieved 17.4.2017.
- CSCMP – AT Kearney (2016) *CSCMP's Annual State of Logistics Report, Logistics in Transition: New Drivers at the Wheel*. Oak Bridge, Ill.
- Guerrero, P. – Heeren, W. – McKinnon, A. – Ojala, L. – Perkins, S. (2015) Logistics Strategy and Performance Measurement - Mexico's National Observatory for Transport and Logistics. *OECD International Transport Forum*. <<http://www.itf-oecd.org/logistics-strategy-and-performance-measurement-mexico%E2%80%99s-national-observatory-transport-and-logistics>>, retrieved 17.4.2017.
- Kille, C. – Schwemmer, M. (2014) Top 100 in European Transport and Logistics Services 2013–2014. Fraunhofer IIS.
- Kille, C. – Schwemmer, M. – Reichenauer, C. (2015) Top 100 in European Transport and Logistics Services 2015/2016, Fraunhofer IIS. <<http://www.scs.fraunhofer.de/content/dam/scs/de/dokumente/studien/Top%20100%20EU%202015%20Executive%20Summary.pdf>>, retrieved 7.4.2017.
- Lorentz, H. – Solakivi, T. – Töyli, J. – Ojala, L. (2016) Trade credit dynamics during the phases of the business cycle – A value chain perspective. *Supply Chain Management: An International Journal*, Vol. 21 (3), 363–380.
- Rantasila, K. – Ojala, L. (2012) Measurement of National-Level Logistics Costs and Performance. *OECD/ITF Joint Transport Research Centre Discussion Papers*, 4/2012, Paris.
- Rantasila, K. – Ojala, L. (2015) National-level logistics costs: An overview of extant research. *International Journal of Logistics Research and Applications*, Vol. 18 (4), 313–324.
- Solakivi, T. – Ojala, L. – Lorentz, H. – Laari, S. – Töyli, J. (2012) Finland State of Logistics 2012. *Publications of the Ministry of Transport and Communications* 25/2012, available both in English and Finnish at: <<https://blogit.utu.fi/logistiikkaselvitys/>>.

Solakivi, T. – Ojala, L. – Laari, S. – Lorentz, H. – Töyli, J. – Malmsten, J. – Lehtinen, N. (2016) *Logistiikkaselvitys 2016* (“Finland State of Logistics 2016”). Available in English (published in 2017 in an edited fashion) and Finnish at: <<https://blogit.utu.fi/logistiikkaselvitys/>>.

World Bank (2014) <<http://lpi.worldbank.org/international>>, retrieved 7.4.2017.

World Bank (2016) Global Rankings 2016.
<<http://lpi.worldbank.org/international>>, retrieved 7.4.2017.

Appendix 1: Selected scientific contributions based on “Finland State of Logistics” data

Also 3+ submissions and 3+ Conference papers in the “pipeline” (Apr. 2017)

- Solakivi, T. – Ojala, L. (2017, forthcoming) Determinants of carrier selection: updating the survey methodology into the 21st century, *Transportation Research Procedia*.
- Laari, S. – Töyli, J. – Ojala, L. (2017) Supply chain perspective on competitive strategies and green supply chain management strategies. *Journal of Cleaner Production*, Vol. 141 (10), 1303–1315.
- Solakivi, T. – Laari, S. – Töyli, J. – Ojala, L. (2016, forthcoming) Firm performance and environmental collaboration in manufacturing. *International Journal of Business and Systems Research*.
- Laari, S. – Solakivi, T. – Töyli, J. – Ojala, L. (2016) Performance outcomes of environmental collaboration: evidence from Finnish logistics service providers. *Baltic Journal of Management*, Vol. 11 (4), 430–451.
- Lorentz, H. – Solakivi, T. – Töyli, J. – Ojala, L. (2016) Trade credit dynamics during the phases of the business cycle – A value chain perspective. *Supply Chain Management: An International Journal*, Vol. 21 (3), 363–380.
- Laari, S. – Töyli, J. – Solakivi, T. – Ojala, L. (2016) Firm performance and customer-driven green supply chain management. *Journal of Cleaner Production*, Vol. 112 (3), 1960–1970.
- Lorentz, H. – Töyli, J. – Solakivi, T. – Ojala, L. (2016) The effect of a geographically dispersed supply base on downside risk: Developing and testing the N-shaped theory. *International Business Review*, Vol. 25 (4), 872–882.
- Solakivi, T. – Töyli, J. – Ojala, L. (2015) Supply chain collaboration and firm performance in manufacturing. *International Journal of Integrated Supply Management*, Vol. 9 (4), 343–366.
- Lorentz, H. – Töyli, J. – Solakivi, T. – Ojala, L. (2015) The effect of low cost country sourcing on supply chain administration cost. *International Journal of Logistics Research and Applications*, Vol. 18 (1), 1–15.
- Solakivi, T. – Töyli, J. – Ojala, L. (2013) Logistics outsourcing, its motives, and the level of logistics costs in manufacturing and trading companies operating in Finland. *Production Planning & Control*, Vol. 24 (4–5), 388–398.

- Lorentz, H. – Töyli, J. – Solakivi, T. – Ojala, L. (2013) Priorities and determinants for supply chain management skills development in manufacturing firms. *Supply Chain Management: An International Journal*, Vol. 18 (4), 358–375.
- Engblom, J. – Solakivi, T. – Töyli, J. – Ojala, L. (2012) Multiple-method analysis of logistics costs. *International Journal of Production Economics*, Vol. 137 (1), 29–35.
- Lorentz, H. – Töyli, J. – Solakivi, T. – Hälinen, H.-M., Ojala, L. (2012) Effects of geographic dispersion on intra-firm supply chain performance. *Supply Chain Management: An International Journal*, Vol. 17 (6), 611–626.
- Lorentz, H. – Solakivi, T. – Töyli, J. – Ojala, L. (2011) Supply chain development priorities of manufacturing firms: empirical findings from a Finnish national survey. *International Journal of Logistics Research and Applications*, Vol. 14 (5), 351–365.
- Solakivi, T. – Töyli, J. – Engblom, J. – Ojala, L. (2011) Logistics Outsourcing and Company Performance of SME:s evidence from 223 firms operating in Finland. *Strategic Outsourcing An International Journal*, Vol. 4 (2), 131–151.
- Töyli, J. – Häkkinen, L. – Ojala, L. – Naula, T. (2008) Logistics and financial performance: an analysis of 424 Finnish small and medium-sized enterprises. *International Journal of Physical Distribution and Logistics Management*. Vol. 38 (1), 57–80.

Dissertations at TSE relying in whole or in part on FSOL data

- Laari, S. (2016) Green supply chain management practices and firm performance: evidence from Finland
- Solakivi, T. (2014) The connection between supply chain practices and performance – evidence from multiple surveys and financial reporting data
- Heinonen, J. (2013) Kunnan yritysilmapiirin vaikutus yritystoiminnan kehittymiseen
- Rantasila, K. (2013) Measuring logistics costs: Designing a generic model for assessing macro logistics costs in a global context with empirical evidence from the manufacturing and trading industries

Turku School of Economics in a New Position

Paavo Okko

Professor Emeritus, Turku School of Economics, University of Turku

Professor Markus Granlund has acted as the Dean of the Turku School of Economics during these years when the School has been finding its position among faculties of the University of Turku. Since the earliest history of the School and the University, the position of the School of Economics has sometimes been under consideration. It has been asked whether the School should be a separate unit or would it be better that it is a part of the University. There are many internal and external factors and arguments affecting this issue. Until the merger in 2010, a strong opinion for the independence of the School was dominating – at least within the School. The current consensus seems to be that the existing status among university faculties is an appropriate one – perhaps the only rational one in the current environment of the Finnish university policy. Markus Granlund has a good background for his important work because he knows the history of the School and has also a good international experience to conduct the School towards the future. I am presenting my best congratulations to the Dean by recollecting some ideas from the history of the School and reflecting some of the current challenges, too.

The University of Turku was established in 1920. Already one year earlier, an idea of establishing a university level business school was raised, but in the early years of the independent Republic of Finland the idea was not realized. Even if the University was a quite small and narrowly based institution in the 1930`s, the Rector of the University argued that a faculty or a school for business studies would be needed to enhance business knowledge above the level of practical business skills. He did not get much support for his idea among professors of the University. Still in the 1940`s, the general attitude within the University was against this idea. A common view was that it is better for a university for civilisation and culture not to have a business school, in other words, business was not viewed as the business of a proper science-oriented university. The Turku School of Economics (and Business Administration) was founded in 1950 as an independent private school, to a large extent at the initiative of local businesses. Within the School, it was taken for granted that it is better to be an independent unit to have a clear image and a good brand of a capable business school. The most prominent business school of the country, the Helsinki School of Economics, was an independent private institution, too. Business faculties established later at some Finnish universities were not capable to earn the same kind of brand value at the market of business studies

and education as independent schools. The same structure remained even if also private business schools became state owned institutions under the state budget system in the 1970`s. In Turku this took place in 1977.

During the economic crisis of the 1990`s, under the pressure of public sector consolidation, a new initiative for merger of the Turku School of Economic and the University of Turku came up. The argumentation for the merger was based on cost savings and economies of scale in research and teaching. The School was strongly against the proposal of the Ministry of Education and it succeeded by the help of its internal and external stakeholders to cease the process. No major university mergers were organized in the 1990`s in the country. The university policy of the government was reformulated in many ways afterwards. Restructuring was considered necessary especially because of the large number of independent small universities. The requirement of a university merger in Turku was taken to the agenda some years later. In 2006, the Ministry of Education appointed a committee to prepare a proposal for a common structure for the University of Turku and the Turku School of Economics. The committee proposed a university consortium, not a proper merger. The explicit motivation for the consortium was to enhance research excellence, and the Ministry allocated funds for this structural development project. But the outcome of the process was anyhow a university merger involving the two in 2010.

The Finnish university legislation was reformed in 2004 in a way that the mission of universities included also the so-called third task/mission. The first mission or task is “independent academic research” and the second one “academic and artistic education”. According to the current law (since 2010), universities are supposed to carry out their mission in a certain way: “In carrying out their mission, the universities shall promote lifelong learning, interact with the surrounding society and promote the social impact of university research findings and artistic activities.” This aspect of the current university mission is an important element in the Finnish university reform. For the School of Economics, while this kind of mission is not a new one, it has changed the activities of the School in many ways. From the point of view of traditional universities, the new policies created new challenges. The social impact is now an explicit target, on which also a part of governmental funding is based. After the merger with the University of Turku, the School is now strongly involved in helping the University to contribute in the area of the third task/mission, i.e. making social impact. Universities are nowadays supposed to be at least to some extent entrepreneurial by their nature, too. This denotes a clear turn around in thinking compared to the early history of the University and the School. The Finnish university reform of this time took the opposite view, and now the Turku School of Economics is one of the seven faculties of the University of Turku. Also within the School it became gradually easier to realize how under the new circumstances its future development can be better safeguarded by being

a part of the University, especially if the School can maintain its own sub-brand within the University.

The new thinking before the merger ended up to a view that there is a win-win strategy option available, especially when the structural development funding by the government is taken into consideration. A merger requires always much from organisations and people under the process, and it is clear that all outcomes of a merger are not just positive. But we will never know what would have happened had the School tried to keep its independence even if the government policy offered only very scarce living space for a small university unit like the School was. Anyway, now we know that the new university structure has offered also possibilities to the School. The University included in its new strategy a policy programme called University for Entrepreneurship. It means a good platform for university wide co-operation for research and teaching in a way, which is expecting notable contributions from the business studies sector. It also signals the fact that the School offered to the University some new opportunities, which would not have been possible to seize without the School of Economics. One interesting sign of the current thinking was a recent comment by the Rector of the University. He asked whether it is possible that a university for civilisation can also be a university for entrepreneurship. His well-argued answer was positive. Nowadays economic values are more and more created by scientific – or by cultural – inputs. Entrepreneurship is not the opposite of the academe. A philosopher and statesman J.V. Snellman argued already in the 1800's that it is not the case that industries are paying costs of cultural life. On the contrary, he noted, industries are fruits of culture and civilisation. In the era of artificial intelligence this must be even better true than over one hundred years ago.

Even if entrepreneurship is a strategic factor in the current agenda of the university and thereby indicates the need for the involvement of business studies, the School covers much more than that. The final test of its success as a part of the University will be how it can develop academic research and education in all the relevant fields of the School. It must not only be a subcontractor of the University. Business studies are quite far from most of the scientific specialization of the University faculties, but all parties can anyhow benefit from co-operation. Just like Markus Granlund wrote in his blog, there is a need to point out that business studies and economics are social sciences, which have normal scholarly quality requirements and responsibilities of science. The environment of science is global and competitive also in the case of business studies and economics. Business practitioners or academics of other sciences have sometimes too narrow view about the role of business studies. They are not only for applied research and practical teaching of business skills. The increased interaction with the other faculties of the university after the merger has enhanced possibilities to develop the scientific basis

of the School. One concrete positive case has been the formation of the new Department of Economics, having after the merger good recourses in the Finnish scale and belonging to the best ones in the country.

The Finnish university reform is now transforming universities in a very fundamental way. Until now we have not yet seen all outcomes of the process. At the moment, there seem to be strong requirements that universities must serve the country and the society quite directly by producing useful knowledge and skills. Perhaps sometimes in the future this is considered to be a too myopic approach to the agenda of universities. Universities have existed for hundreds of years. They have faced many kinds of external pressures, but they have sustained because of their strong internal dynamics. We should remember this if a need for clearly measured output and outside-determined effectiveness of universities will further grow in significance as it now seems. The Turku School of Economics can fulfill these requirements because its basic nature has been always to serve the country by developing business and economic knowledge. But how this will be managed is better to leave for the assessment of the academic community itself. That is in line with the spirit of the new University Act, too.

Professor Markus Granlund – My Invaluable Guide on a Challenging Journey

Marika Parvinen

MTV Ltd

I had the great pleasure to be a student of Professor Granlund for almost 15 years. Our collaboration started back in 2000 when I began my master's degree in what was then known as the Turku School of Economics. The fact that as one of his students, I can use the term collaboration when describing our working relationship defines Granlund's special character. His professionalism and expertise are undoubtedly top class and these characteristics are not only applicable to his field of science. He is also very approachable, has a wonderful sense of humour and a level of emotional intelligence that makes collaborating with him a pleasure.

My earliest memories of Professor Granlund go back to an event where new undergraduates were being advised on their choices for their major subjects. There were many subjects to choose from: management & organization, accounting, business law and economics. It reflects well on Professor Granlund's credibility and influence that I still remember how he convinced us that accounting, and especially management accounting was "the smart choice". And so it has been. Thank you for the tip Markus.

From my time as an undergraduate, I remember how Professor Granlund's classes were incredibly popular and full. The courses he taught were a favourite not only with accountancy students but with many students of other subjects. We were disappointed when we couldn't vote him Teacher of the Year every year.

Professor Granlund's teaching methods had some unusual qualities which inspired us. He taught with passion and gusto. For him it was not good enough just to talk through the standard course materials. He was charismatic and used plenty of practical examples. This made the theoretical aspects of the subject more interesting and gave us the opportunity to engage in discussion. Professor Granlund also made us aware of, and interested in academic criticism. He hardly ever spoke about a given matter as an ultimate fact. Instead, he approached subjects from multiple points of view and wasn't afraid to add his own opinion. Often, in the end, he would even challenge his own point of view. This sort of dedication to one's profession can't always be the easiest way to exist or teach, but I believe that in balance Professor Granlund has achieved one of his own goals; he has increased the numbers of critically-minded, business-oriented accountancy professionals in the world.

It has also been a great joy of mine to witness Professor Granlund's success outside the academic world. In my private sector career I have organised events aimed at Chief Financial Officers and Managing Directors. At one of these events, Professor Granlund agreed to open the conversation on management control topics. Because of his extensive experience, and as someone who has conducted many case studies in the field, he was able to chat naturally and be at ease with the business representatives. Afterwards he was praised by the seminar attendees. It was due to Professor Granlund's suitably conceptual talk that the conversation in the seminar rose to a level that we probably wouldn't have otherwise achieved.

For someone like me who comes from a practical rather than business scientific background, my doctoral dissertation was a very real challenge. Professor Granlund had many methods to support the study process, of which I still remember a few. When at first I struggled to adopt a more academic approach to my work, his attitude as well as his methods helped me along. Generally, when he saw his students stumbling on either scientific or practical aspects, he was there to offer advice to spur things along.

One of the methods he introduced me to was called a "two pager". Although at times it felt like torment, it was using this method that Professor Granlund guided my anxious self to concentrate my research questions, the methodology, my findings and conclusions into just two pages. In retrospect, I can see how this arduous method was in fact genius. Using this method ensured that I didn't bury myself under a vast amount of information, but the main threads of the study were clear and concise. Professor Granlund's extensive and in-depth knowledge of accountancy and these practical tips formed a comprehensive support layer that was a great comfort to a doctoral student.

As a non-academic, when I was writing my doctoral dissertation I came across a great deal of information that was new to me. There was a whole new language and terminology, new ways of thinking, behaviours and approaches. After completing my doctoral study, I have described the experience like taking a flight to the moon. It is on this flight that Professor Granlund's support was invaluable and without him I couldn't have completed it. There were times when he allowed me to float off course and I would have to find my own way back to my flight path. Even when I realised that I had veered off course I didn't need to panic because I knew his help was available. It was during these deviations from my route that I developed a more profound knowledge of my subject. It was as if Professor Granlund had an invisible life support line to my space suit so that I didn't drift away. Anybody taking a trip to the moon would be lucky to have a top professional like Markus as their guide.

The New Universities Act: From an Academic Community to an Entrepreneurial University

Pekka Pihlanto

Professor Emeritus, Turku School of Economics, University of Turku

Foreword

Finland's universities are owned by the state

The universities of Finland are owned by the state. Their total has slightly declined in recent years, as a result of university mergers – currently totalling 15. For instance, Turku School of Economics was merged within the University of Turku in the beginning of 2010.

Universities are regulated in the Universities Act (Yliopistolaki 558/2009) and also the government decree issued with regard to universities, as well as in certain other statutes. In addition, the Ministry of Education and Culture supervises universities quite closely with the help of budget control.

The Finnish Parliament annually approves the basic financing of the universities as an institutional entity. Funding is distributed among the universities primarily in accordance with the national financial model, on the basis of their teaching and research related performance. In addition, the universities obtain strategy-based funding, which is agreed between the Ministry and each university.

The purpose of the national financial model is to reinforce the quality, impact and productivity of the universities' operations. The financial criteria attempt to promote the attainment of current higher education institutions-based policy targets.

The basic funding is allocated to the universities as one entity. The universities decide on the targeting of financing in accordance with each university's own internal strategies.

Government authority has already long encouraged universities to acquire external funding. Indeed, approximately one third of overall financing derives from other sources than the state budget, such as from other public financial providers and private sources. A significant proportion of other financing is research funding subject to national competition.

In internal administration and the planning of degree programmes, the universities have relatively substantial autonomy, but legislation and state funding establish obvious limits for this.

The new Universities Act – a significant change

The new Universities Act entered into force in 2010. Alongside it, the universities were brought under the control of a new type of administrative and management model. The Act seems to copy principles that are typically applied in business enterprises. This meant substantial change in both principle and practice, compared to the earlier academic, collegial system of management.

Already prior to the new Act, the Ministry of Education and Culture had led efforts to have the universities adopt management principles similar to those encountered in businesses. The same ideas had already been presented in public for a long time by opinion leaders of business life as well as by the managers of various entrepreneurial organizations.

Officials in the field of education in addition to many politicians accepted the entrepreneurial management model enthusiastically. After all, the same kinds of ideas had also been presented and implemented elsewhere in the Western world.

In the following, we examine the impacts of the Universities Act on the administration and management of the universities – in particular, taking a critical perspective to the management ideology borrowed from the world of business. We will compare the situation before and after the inception of the Universities Act, among other things, emphasizing the change in the balance of power between the rector and the university staff. We will study so-called public universities (in the Universities Act, there is also dealt with another type of universities, foundation universities).

The centralized entrepreneurial management system and external persons on the board

Rector as the university's CEO

The new Universities Act eliminated the old collegial university management system and emphasizes individual directors in accordance with the entrepreneurial model. Although there was, of course, a rector and unit directors in the old university system – faculty deans, department heads, etc. – various collegial bodies had

considerable power. This way decision-making power was centrally held by professors, other staff and students – in other words, by the scientific community, which was the core of the old university.

In the new Universities Act, the rector is in effect CEO of the university, whose authority is nevertheless limited to some extent. Similarly, the dean of the faculty and department heads are comparable to the department managers in a business enterprise.

The task of the rector is to manage the operations of the university and decide on matters affecting the university, as well as to be responsible for the economical, efficient and effective discharge of the university mission.

Further, the rector takes responsibility for legal compliance of the accounting as well as the reliability of the financial management.

The rector also looks after the preparation and presentation of the agenda for the Board as well as implementation of Board decisions, unless otherwise designated in the university regulations. The rector is additionally the HR director, as s/he decides on the hiring and dismissal of staff. The rector therefore has a rather tight rein over staff.

In the universities' old administrative model, the rector acted as the chairperson of the Board. In the new legislation, the authority of the rector is limited, in relation to the fact that the chairperson of the Board is elected from outside the university.

Further, the rector may undertake action which is far-reaching in terms of the university mission only where the Board has authorised him/her to do so or where it is impossible to wait for the decision of the Board without causing essential harm to the operation of the university. In the latter case, the Board must be informed of the action without delay.

With these limitations, the rector manages the operations of the university alone, deciding on its matters as well as being in charge of the effectiveness and efficiency of its functions. Moreover, as mentioned above, the rector is responsible for the preparation and presentation of matters for the Board and the implementation of Board decisions. This being the case, the comparison with the CEO of a company is relatively apt.

The quota principle and the tasks of the Board

The Board is elected on the quota principle familiar from previous legislation, supplemented by members external to the university. According to the quota principle, the groups composed of professors, other staff and students elect a certain number of members for the Board from within their midst. The rector, deans and other unit directors cannot belong to the Board.

The task of the Board is to determine the foremost objectives of the university operations and economy, and the strategy and management principles. It also decides on the university's operational and financial plan as well as the budget, and prepares the financial statement. The Board is also accountable for the management and use of the university assets, unless the board has devolved the power to the rector.

The Board elects the rectors and decides on the division of labour between them, and can also dismiss the rector if there is a legitimate and well-founded reason for it.

Further, the Board arranges the supervision of the accounting and asset management and adopts agreements of major importance or fundamental consequence for the university and issues opinions on important matters of principle concerning the university.

The Board also adopts the agreements concerning educational and science policy objectives made with the Ministry of Education and Culture, and adopts the university regulations and other corresponding rules pertaining to general organisation and decides on the operational structure of the university.

Moreover, the task of the Board is to hire the leading staff directly functioning under the subordination of the rector, unless the Board has devolved the task to another university organ.

The general, strategy-type and other comprehensive matters – such as objective setting, planning and organizing – thereby belong to the university Board, in the same way as with the Board of Directors of a business enterprise. As noted, the rector takes care of matters on the operational management and practical level in a manner similar to the CEO of a business enterprise.

Members and chairperson of the Board from outside the university

At least forty per cent of the Board's members as well as the chairperson of the Board must be elected from persons outside the university. The entry of an external chairperson and external members on the Board reduces on its part the power of professors and other staff, and means at the same time a clear exception to the expert authority and autonomy of the university predominant in the 'old' system.

The Universities Act therefore seems to consider that functioning on the university's governing body does not necessarily require scientific competence or any other familiarity with university operations. It is naturally possible in practice that there is an attempt to elect external members by reference to their familiarity with the university world, but the law does not require this.

However, a deeper expertise on the university is generally lacking in the case of external persons. In most cases, such persons have probably been acquired their experience of university as a student, perhaps long time ago.

The entry of external members to the Board means an impact from the external system of values on the university's decision-making process. In many cases, it expressly signifies an increase in the influence from the business life, as quite frequently in practice business managers and other persons from business life are chosen to the Board. These elections are made by the University Collegium (see next chapter).

Although the election of business world representatives to the Board increases the interaction between universities and the business life – which is undoubtedly beneficial to universities – the influence of the business life on the Board decisions may on the other hand jeopardize the strict scientific independence of the university and its researchers.

The same trend applies with regard to the obligation set for the universities to acquire external funding, as certain terms and conditions may be attached for research and possibly also its results. Even if particular terms and conditions were not imposed, researchers may face the temptation to bend towards the views of the financiers in their research work.

The influence of the external system of values may, among other things, lead to a decline in the importance assigned to basic research. This may occur, for example, in cases where the research themes chosen on scientific criteria do not appear to external eyes “useful” enough. The practical utility of basic research is, after all, frequently uncertain and is often realized – even in the best cases – over an extended period of time.

The university collegium: a legacy of the old system

A relic from the old collegial administrative system in the universities is the University Collegium (or the Collegiate Body), whose members are composed of university staff and students. It elects its chairperson and deputy chairperson from amongst its members. The rector has only the right to speak and to be present in the Collegium.

The Collegium offers a channel of influence to the university community

The task of the Collegium is to elect the external members to the university Board as well as confirm the election of Board members by professors, students and other

staff groupings. The Collegium also dismisses a Board member on the proposal of the Board.

From the perspective of the reduced autonomy of the university community, it is a positive aspect that the university's staff and students are able to affect which kind of representatives from outside interest groups are elected to the Board. Perhaps, however, they have not always considered the possible dangers of business world influence on university.

The Collegium also elects the university's auditors and confirms the financial statement and the annual report of the university and discharges the Board members and the rector from liability.

Moreover, it decides on the bringing of an action for damages against a board member, the rector and a chartered accountant, in addition to releasing a Board member from his/her duties.

The Collegium is above the Board and rector in the university organization, and it thereby offers the university community a counterforce to the exercise of power by the rector and Board.

However the significance of the Collegium as a counterforce for the rector as well as the Board decisively depends in practice on the activity of the Collegium's chairperson and its members, as well as their administrative skills.

In the old administrative model, the Board consisting merely of representatives from the staff and students elected the rector: as mentioned, the choice of rector is now made in part by external members totalling 40 per cent, which increases the rector's independence from the staff.

The Collegium is a healthy administrative solution, also in the sense that it offers the expertise represented by staff and students a channel, by which it is able to affect the administrative decisions of the university – in addition to the channel offered by the Board memberships.

The possibility of conflict

Because the Collegium has been given a certain amount of power in university decision-making, there might naturally arise conflicts, for instance, between the Collegium and both the rector and the Board. Naturally, in all kinds of organizations the possibility of conflict always exists. However, if personal relations are in order, the question of dominance and counterforce are irrelevant – as well as conflicts.

It is interesting that the functioning of the traditional university's collegial administrative structure was often regarded outside the university as conflict-oriented

or even “wrangling” between the university’s internal interest groups – and referred to this, this system was critiqued particularly when the current CEO model and the Universities Act was driven through.

In this argument, however, the central concept of the collegial administrative model was misunderstood: the joint decision-making of various interest groups which occurs within the context of mutual interactions and reconciliation, is not in general “wrangling”. If the system rests on a healthy foundation and is managed correctly, potential conflicts end in consensus.

An entrepreneurial university emphasizes measurement

In addition to the CEO model, it is characteristic of the entrepreneurial university concept that the effectiveness of operations is an essential aim and criterion of success, and it is followed-up intensively. In business enterprises, success is measured with money, i.e. by various profit indicators.

The problems of measurement in the university

The criteria for the success of a university cannot, of course, be profit measured in money, because money represents only an input factor for the universities. The yield of a university is, instead of money, something qualitative and intellectual. It can be concretely characterized as, for example, the number of degrees and research projects completed. In more abstract terms, the yield of universities is information, knowledge, wisdom and civilization.

Since university yields are basically qualitative, their quantitative measurement is difficult. Therefore, the application of an entrepreneurially modelled measurement mentality forms a major problem in universities. According to the entrepreneurial model, measurement must always be practised and as unambiguously as possible as well; therefore, measurement tends to concentrate on quantitative indicators. This has occurred at universities as well, in spite of the qualitative nature of the university yields.

However, the validity of the indicators appears to remain in universities a secondary issue: the measurers do not often appear to be concerned over what the indicators in actually measure – as long as they measure something.

Even if as typical yardsticks for the operations of universities are used the total numbers of degrees and publications, there has also been an attempt to introduce quality by measuring, for example, the entry of the graduated onto the labour market and by dividing up publication forums on the basis of their assumed quality. These are, however, rather approximate indicators.

It must be remembered that universities are not universities of applied sciences, which educate students for labour markets. And moreover, employment is largely a matter dependent on the individual's personality and other personal qualities. Correspondingly, the merits of a publishing forum are at the discretion of subjective evaluation.

Generally, foreign publication forums are regarded as best: after all, internationality is one of the central values both in the world of business and in the university. On the other hand, from the perspective of the community, a publication in Finnish may in many cases be more useful than one in a foreign language, but stressing internationality seems to be more important than the interests of the community. Of course science also frequently strives towards internationality, but this is a different matter than uncritical emphasis on the latter.

Foreign ranking lists and reducing expences

The media in particular follows foreign ranking lists that create a competitive juxtaposition between universities. The ranking lists are structured by reference to the needs and circumstances of foreign universities and especially favour the natural sciences as well as publishing in certain international journals. If a university is missing a medical faculty, for instance, it is clearly in a poorer position in ranking than universities that have one.

Despite these sorts of imbalances, rankings are used as such for the comparison of all universities and to position universities accordingly. In this way, partly erroneous criteria are used to criticize weakly ranked universities. This results in groundless demands for change being made to universities, even if they perform in their own area quite acceptably or well.

The consequence has been a groundless underestimating of our universities. This kind of negative publicity tends also to generate a loss of motivation on the part of the staff. Appreciation for our universities and research has indeed gone from bad to worse during the last few years and decades. There may indeed be many reasons for this, but distorted rankings are without a doubt one of them.

Both general profitability thinking and the decline in appreciation for university research have on their part reinforced the wishes on the part of the government to impose cuts on state funding.

In reducing expences, the short-term target-based utilitarian thinking specific to the entrepreneurial operational culture, combined with the annual measurements of results, are in danger of leading to a situation where such projects are particularly saved from cuts, where fast results are anticipated. In other words, funding of the basic research is being cut, because there results are obtained slowly and uncertainly.

Irrelevant indicators are detrimental

The idea behind universities has at least formerly comprised freedom of research – and the term is still mentioned in the Universities Act, but the reality might often be different.

A genuine academic freedom is very essential, as it ensures at its best the emergence of creativity. In the old university, the quality level of research was traditionally subjected to comparison and competition in, for example, filling a position. In addition, scientific work was also in the old days competitive by nature.

Many do perceive the irrelevant indicators applied in the current university system as disruptive to research and its freedom. And inevitably this is exactly what they are – particularly if and when the indicators emphasize matters that are different from the research traditions and scientific criteria.

This way the researcher may end up in a situation of conflict: should s/he examine the kind of themes that are scientifically interesting and important in the view of the researcher, or those favoured by the indicators?

This kind of dysfunctional indicators should indeed be eliminated or revised for relevancy, but experience actually suggests that under the current ideology both the Ministry and political decision-makers are not interested in seeing any faults in the current system.

The researchers of universities can thereby react to the irrelevant indicators mentioned either by carrying out research as well as possible and ignoring the “recommendations” of the indicators, or through adapting to these indicators – in spite of their harmful effects on research.

How is the new Universities Act perceived in the universities?

Since the Universities Act has now been in effect for six years, experiences have been collected with regard to its viability and impacts. Accordingly, questionnaire studies have been carried out amongst the staff, in order to discover impacts resulting from the Act.

It has been noted that the work satisfaction of staff has diminished following the inception of the new Act. According to one study, only ten per cent of the staff considered the university reform as successful. Academic freedom was also perceived as declined. A large proportion of the staff no longer feel capable of affecting university and working environment to the same extent as before.

This development seems to have been for the most part a consequence of the entrepreneurial, centralist management model introduced by the Universities Act. It emphasizes, as mentioned above, the importance of the rector and the administration in everyday operations.

The change can also be described as an increase in bureaucracy. The administration gathers many kinds of information important from its own perspective, the significance and utility of which are frequently difficult to understand on the teaching and research level. Collecting this information naturally takes time from the university's main operations, research and teaching.

Centralization of the administration has also led to a situation in which administration personnel have been transferred from the institutional level to the central administration, due to which the accessibility of services on the institutional level has deteriorated. Accordingly, many professors, for instance, have reported that they have been required to increasingly sacrifice their time to routine administrative tasks.

The changes in the universities' financial model have led to a situation where an ever larger part of professors' time is taken up with acquiring research funding. The application bureaucracy linked with this has grown and grown – which naturally reduces the time available for research work.

The competition introduced with the entrepreneurial management and operational culture has created competitive positions among individuals, research groups and organizational units. This diminishes cooperation which previously was one of the core aspects of academic work. Precisely, the performance measurement and ranking lists dealt with above have fostered a competitive mentality.

In most disciplines, team work is an essential mode of working, so there is no room to make it more difficult. Naturally competition can activate operations – and that is in fact its purpose – but its negative consequences must be acknowledged and an attempt made to eliminate them.

Is there something that can be done?

How can all these problems be resolved? It has been noted, however, that the government has no interest in “opening” the Universities Act. Exactly, the entrepreneurial policy adopted in the Act is in accordance with the generally dominant ideology found in the state administration. In addition, it mirrors the neoliberal economic thinking adopted throughout the entire Western world. This being the case, it seems useless to hope for changes, at least in the short term.

The only realistic option would appear to be that the staff of universities endeavour to minimize, according to their possibilities, the harm caused by the current administrative model in their work. There seems evidently to be motivation for this, since – as previously noted – the staff are quite extensively dissatisfied with the current administrative model. For the most part, it is only the universities' rectors and other administrative personnel who appear to be satisfied with the situation. Assistance from them is therefore not to be expected.

It is of course also possible to live under the Universities Act as well. The staff at the universities still appear to be internally strong and motivated, and therefore they are capable to adapting to the challenges and requirements imposed on them – no matter how unjust the challenges happen to be.

The success of the universities and staff satisfaction nevertheless depend a great deal on what sorts of personalities are chosen for management positions at the universities. The current administrative model permits an autocratic management style, contrary to the old collegial university model. For this reason, there is reason to be especially careful in the election of rectors as well as Board and Collegium chairpersons.

At all times, the right type of personality and administrative skills of the rector have been an important resource for the university's success and reputation. This is the case particularly in the present situation as our universities are regulated by the Universities Act.

Extrapolating the Impact of Integrated Information Systems on University Management

Hannu Salmela

Turku School of Economics, University of Turku

Abstract

In 2001, two promising and perhaps even future minded young researchers wrote a paper about the managerial impact of integrated information systems. The paper presented 11 predictions about the ways how increased automation of operations and reporting will change managerial work and decision making. In the current paper, approximately 16 years after the original paper was written, I shall revisit and test 5 predictions, by comparing them with the realities of contemporary university management. University management is selected, because both authors of the original paper have done considerable amounts of empirical data collection in this context. The key conclusions are, that all five predictions have already started to become reality in universities, but the original predictions had a slight positive bias – new technology does not only assist managers, it also brings additional challenges. This is, however, only one study carried out in one university and therefore more research is needed to validate its findings and conclusions.

Introduction

The new technology does not yet have a single established name. We shall call it information technology (Leavitt & Whisler, 1958, p.41).

In 2001, the author of the current paper wrote a co-authored paper about the managerial impact of integrated information systems together with his colleague (Granlund and Salmela, 2001). Although the paper remained as an unpublished working paper, it laid down several interesting extrapolations of the organizational and managerial impact of information technology. Extrapolations were formulated in a manner that they can be empirically tested.

Our paper in 2001 was positioned to continue the research that was initiated in an article in Harvard Business Review in 1958, where Leavitt and Whistler (1958) predicted that the new information technology would cause revolutionary changes in management. In particular, the paper made predictions that organizations will centralize decision-making and middle management decisions will either be

moved to be made by senior managers or by analysts and operative workers. For decades, research didn't observe any such changes. At the end of the 1980's, however, Applegate, Cash & Mills pointed out that Leavitt and Whisler's predictions were perhaps more accurate than what the critics had claimed (Applegate, Cash and Mills, 1988). Downsizing and flattening had become major trends and corporations were reporting restructuring projects that thinned management by 30 to 40% percent.

In the spirit of Leavitt and Whistler, our original paper in 2001 aimed at predicting further changes in management. Given the fact that many global companies had implemented ERP systems in late 1990s (Markus, Tanis and Fenema, 2000), and the Internet and Web was providing a completely new easy-to-use platform for collaboration within and between companies (Porter, 2001), it seemed reasonable to presume, that transformation in management and decision making will continue. This presumption was supported by management accounting literature of that time, where the implications of new systems were also debated (Cooper and Kaplan, 1998). Hence, starting for the paper point was that: "The question is not whether the work of managers will change or not, but how it will change". The paper then identified altogether 11 predictions of how managerial work and decision making will be affected.

In this paper, I have selected 5 most interesting ones for closer examination. As the initial predictions were made about 16 years ago, it does seem reasonable to expect that at least some of the predictions should be observable in managerial practice. University management was selected, because both authors of the original paper have embarked into a longitudinal research project, enabling them to make longitudinal empirical observations during the past 7-9 years. The first author of the original paper accepted the position of a Vice Dean of Turku School of Economics in 2008. To improve reliability and validity of observations, the second author joined the empirical data collection by accepting the position as the second Vice Dean of the school in 2010. At the same time, the Turku School of Economics was merged to large multidisciplinary university, providing some flavour of controlled experiment to this research. To gain first-hand experience in managing the entire faculty, the first author of the original paper later accepted the position of the Dean of the School of Economics in 2012. The data collection period has lasted until 2017.

While working as the Dean and Vice Dean, both authors of the original paper have had the opportunity to observe changes in managerial work from the perspective of Turku School of Economics. The school is part of a multidisciplinary University of Turku, with six other large Faculties. I acknowledge that some of the observations presented here may look different in higher organizational levels, i.e. at the level ministry, rectors and administrative managers. Some issues could also

receive different interpretations by Department Heads and Heads of Subjects, and definitely so by individual researchers and teachers.

Due to restrictions that can be labelled as “technical”, I’m reporting our experiences without being able to triangulate them with the first author of the original paper. This is not ideal, in terms of validity and reliability of reporting the observations. Nevertheless, I strongly believe that the experiences and observations reported below do reflect the true nature of managerial work at the university, and thus provide a basis for evaluating the five extrapolations.

Growth of integrated information platforms

In our original paper we predicted that the era of personal computers will gradually be over and information will increasingly be stored in integrated platforms. During the 1990's, more and more companies started experimenting with ERP systems (Enterprise Resource Planning systems), enabling business information to be shared by business units operating in different countries or even in different continents. Another important platform of that time was the World Wide Web. Increased use of the Internet meant that more and more business information was digitized and stored in corporate intranets and extranets. Web applications enabled business units to share unstructured information containing sound, visual images and video. Hence, we extrapolated this development to continue:

More and more business information, both structured and unstructured, will be stored in enterprise wide databases and data warehouses (instead of local computers) and thus made available to managers in all business units.

Based on our observations in the context of university management, this prediction can be evaluated as being correct. Although laptops are being used to create text documents, presentations, research data files, research articles, and teaching videos locally, such information is almost immediately moved to centralized systems, e.g. e-mail servers, eLearning platforms (Moodle), intranet, or web based data services, such as Dropbox or Research Gate. Likewise, structured information is increasingly stored in university level or even national databases and data warehouses. It is also true, that increasing amounts of data are now directly accessible, not only to managers themselves, but also to peers and even public media.

Our observations do, however, also point out that it appears to be somewhat difficult to ensure data quality in integrated information platforms. As the distance between sources of information and its usage in different contexts increases, data can be combined in a manner that no longer makes sense. To provide an example, performance measures at the ministry level can be somewhat biased, if resources

from one system are combined with performance indicators from another. What is a minor inaccuracy for ministry, may cause a major headache for the Dean. Trying to correct clear mistakes or misleading summaries is part of daily work for university managers. Another frustrating issue is the incorrect, outdated or missing information in different websites, let alone social media, which is more or less completely out of control. Correcting or dealing with misleading information in integrated information platforms has become a routine task for university managers at all levels.

Wider scope of business integration

In our initial paper we observed that the primary strategic reason why companies are implementing integrated information platforms is related to the possibilities to search new integrated business models and thus improve operative efficiency and/or competitiveness. The ability to use synergies between different units and to configure a tailored and highly integrated value chain is an essential part of a company's competitive strategy. It is the primary means in strategic positioning and in creating a truly distinctive value offering for customers. In the era when technology enables unlimited sharing of business information, the way business operations are integrated can no longer be seen as an operative or tactical question.

But we also warned that senior managers need to bear in mind that the law of diminishing returns also applies to the integration of business operations. The downside of integrated business models is that the enterprise loses the advantages of modularity, i.e. of having loosely coupled independent units that cooperate using simple contracts and standard interfaces. Harmonization of business processes, standardization of operative information, and integration of global systems are all tools that should be used with great care. Inflexible customer service, inability to adjust processes to local needs, increased IT costs and failures in managing complex IS project, can all be signs of excess of integration, rather than lack of it. Hence, we extrapolated that the ability to define how far to go in business integration is going to be one of the most critical and difficult strategic decisions in the near future:

Setting the right scope for projects that aim at business model integration both inside the enterprise and with business partners is one of the most difficult and significant managerial decisions created by integrated information platforms.

Recent development in the Finnish University system can be easily interpreted as an attempt by the ministry to increase the scope of integration both within and

between universities. Decision to merge several small universities into larger multidisciplinary ones in 2010 was partly seen as a way to IT enabled synergies e.g. in administration. Simultaneous implementation of financial Shared Services Centre in Vaasa, and implementation of financial modules of SAP as a single instance application for all Finnish universities, provides an explicit example of national level integration. As another example, due to the ministry led thrust to profile universities, 10 Finnish business schools agreed to embark on a project, where they develop a virtual learning environment for providing a business minor for students in all Finnish Universities. Although the potential for synergies is obvious, so are the complexities of managing thousands of students and finding ways to share costs within the consortium. Overall, starting from the budget cuts that commenced in 2015, the trend towards broader harmonization and integration has been intensified by the need to find cost savings.

Our observations in the university sector suggest that “defining the right scope” is a highly controversial issue, where opinions vary significantly between organizational levels. In the hierarchic structure of the university system in Finland, the Ministry, University Boards, and Rectors use formal authority to make the necessary harmonization of platforms and processes. Whereas calculations of costs and benefits of harmonization are difficult to formulate and rarely presented, the need to implement a new IT system is almost always given as a reason for not accepting any exceptions. Although faculties and departments are “asked for comments”, such comments are asked, because “this is our tradition”. For Deans and Vice Deans, the task of explaining over and over again problems upwards, selecting the most ugly changes to fight against (often in vain), while taking the anger of frustrated professors, researchers and teachers becomes part of routine management work. Hence, our prediction is definitely supported: “setting the right scope for integration” has become a key task, although the verb “setting” sounds ... well ... clinical. Perhaps we should consider rewording to “battling for the right scope ...”

The rise of cross-functional management teams

In the original paper we also predicted that integrated business models will lead to changes in corporate management. Management strategies based on optimising operations within functional departments, product lines, or geographical organisations simply will not be adequate. Hence, we proposed that the traditional coordinating mechanisms, e.g. strategies, budgets and corporate policies are no longer sufficient in managing integrated business models. Instead, unit managers need to discuss various possibilities directly with the other unit managers. This is best accomplished by cross-functional “executive teams”. For instance, a team of managers responsible for a product development process might decide about a

new, innovative product that will lead the company to totally new business areas. Hence, we extrapolated that:

Cross-functional teams will take increasing responsibility over operational, tactical and even part of the strategic decisions (e.g. new product development). Such teams consist of both middle managers and operative personnel and they often involve managers or specialists from other companies in the delivery chain.

Based on our observations, this is partially true in the current university context. The pressure to collaborate over organizational borders is clearly increasing. The diminishing amount of basic funding means that universities have to rely increasingly on external funding, which more often than not requires a consortium of firms, other faculties of own university, and other Finnish or international universities. This leaves a lot of room for consortium building efforts that within a short period of time combine contemporary themes into applications that address the themes selected by the research funding agencies. If accepted, such applications can suddenly become a strategic theme, profiling the research activities of the entire university and also the Faculties involved.

Permanent cross-functional teams are, however, somewhat new within the university structure. Collaborative arrangements often emerge despite lack of cross-functional managerial structures or integrated information platforms. Such structures are established and their position is strengthened after funding is received, often in an ad hoc, case-by-case basis. Formal systems of the university rely still on traditional coordination mechanisms that are typical for hierarchic organizations – strategies, budgets, and reporting systems that foster compliance to university strategy. Deans and Heads of Departments are nowadays expected to report several times a year, how the Faculty has implemented the university level strategy. Balancing the profiling themes emerging from consortium applications with the realities of formal university structures, budgets, and reporting systems creates paradoxes that, again, end up to Dean's table. Some irony can be seen in the fact, that one of the recent emergent strategic themes is labelled as Digital Futures.

More effective management reporting

In our original paper, we predicted that firms will increasingly integrate financial information with e.g. personnel, process, and customer information into a coherent management tool. Furthermore, with advanced analytical tools, managers will be able to drill down into databases by just “double-clicking” on the item that needs to be further analyzed. With such tools, new information and better forecasts can

be made available for decision-making situations where the needs to improve activities in marketing, production, distribution and R&D are evaluated. From the senior management perspective, the standardization of information was seen as allowing for better comparability between subsidiaries and profit centres, including benchmarking possibilities, which could be taken advantage of in strategic decision-making. Hence, we extrapolated that:

The new integrated technology will lead to an emphasis of real-time information, but also to enhancements in making forecasts and comparisons. Access to real-time information about performance measures will also increase the impact of reward and bonus systems.

Our observations in the university sector provide partial support for this extrapolation. It is true, that information on personnel, student progress, completed degrees, research outputs, and other key performance criteria are nowadays stored in data warehouses. The reason to collect the data is, however, to feed data into the national funding system. Universities are expected to provide data so that the ministry can allocate more money to those universities that are deemed as productive. Within universities, the same model (and data warehouse) is used as a means to divide money between different faculties. This has indeed lead to increased awareness of the funding model and its performance criteria at all levels of the university organization.

Based on our observations, not all consequences can be deemed as positive. Perhaps most notably, the system promotes managerial thinking that is based on looking at historical results, with an attempt to identify who is the most productive unit – thus deserving rewards and additional resources. Future oriented debates about what should we do differently in the future and how should we do it are left behind by battles over marginal resources between competing units. And even if we do engage in future oriented discussions, the fine-grained data needed to support such analysis is largely non-existent. This is because the data warehouses, although improving, still reflect the initial task of collecting historical performance data at a relatively high aggregation level, i.e. on the level of entire university or faculty. It may well be that this is not what the ministry intended, but this is still what emerged. For Deans it means an endless job of serving as a referee in the disputes over resources between competing units, rather than as a coach, who uses analytics to combine and lead a winning team.

Independent functional units

Does all this mean that functional units and hierarchies will no longer exist? Our answer then was, and probably still is, “no”. Pure process management is clearly not enough. Functions will still play a special role as they have important tasks in managing knowledge and resources. What may take place is that function managers no longer have the authority to change business processes within their own domain independently. Hence, we extrapolated that (9):

Functions (sales, production, finance, etc.) will remain and in some respects they may even become more independent (e.g. choice of geographical location). The role of functional management is, however, limited to managing resources, knowledge and capabilities within its own competence area.

This appears to be the case, also in the university context and it applies to both academic faculty and administrative staff. On the academic side, the basic unit is still a subject that provides research and teaching according to the norms of a discipline. Subjects are also encouraged to specialize and profile themselves, to better distinguish them from disciplines in other universities. Likewise, the university administration is still also structured around competencies – finance, travelling, personnel, student affairs, and so on. And it indeed appears that functions are becoming more independent, also in choosing their geographic location. There is a strong belief that such knowledge bases are needed, and the requirement for seamlessly integrated processes can be established with the help of integrated information systems.

The trend where knowledge and resources are centralized into “competence centres” may sound like a natural development. From the perspective of an individual unit, such development is neither natural nor always beneficial. Since the foundation of Turku School of Economics in 1950s, one of its characteristic features has been strong community and culture. The fact that two of its most loyal and committed groups, i.e. administrative staff and language and communication teachers, are moved outside of the school, is a major change. It is perhaps the most significant change in the history of the school. Again, same irony can be seen in the fact, that one of the practical concern of Deans was loss of “own” administrative personnel who can dig information and analyses from various data bases. The past few years have not been a particularly nice time to be the Dean.

Summary

Majority of changes reported above are not “caused” by technology. At the level of individual organizations, decisions on change are made by managers. Changes in Finnish universities are initiated by ministry and further defined by rectors and university boards. They could have chosen differently. One can also ask, if similar decisions had been made – even without the new technology? What actually is the role of integrated information platforms in this context?

While technological imperative doesn’t explain changes in individual organizations, it does seem to predict long term impacts much better than its counterpart, the organizational imperative. The adoption of technology by individual organizations is a trial and error process, but the end result at the level of the entire industry is not. Market economy doesn’t leave room for choice: sooner or later industries and individual companies within then will have to adopt new technologies and adapt their business models and processes accordingly. We have already witnessed major transformations in many private industries, such as travelling, finance and media.

The same applies to the public sector. Politicians, ministries and agencies may resist change e.g. to protect public sector jobs, but eventually pressures to keep public spending and government debt at a sustainable level will initiate transformation. For the universities in Finland and abroad, the trial and error process of change has only started. Sometimes changes take a long time. For instance, universities still have middle management (Deans and Department Heads), even if Leavitt and Whisler predicted over 60 years ago that their time is over. Keeping this in mind, we can say that the changes that we have observed in the university management during the past 10 years fits reasonably well with our extrapolations on how technology will transform management.

So the final remaining question is – how should we see the value of the original extrapolations now? After 16 years of calendar time, and about 16 years of Dean and Vice Dean years combined, I think we must admit that our views were quite optimistic: we emphasized primarily how integrated information platforms will facilitate management. We didn’t put much attention to anticipate negative implications for managers. And yet, the negative implications – such as problems caused by incorrect information, rigid top-down harmonization, reward systems that lock focus on past performance, drifting strategies, and centralization of critical resources – are equally logical outcomes as the positive ones. Perhaps, if we wrote the paper again, we might aim for a more balanced approach. Perhaps finalising the paper may still require some more years of empirical data collection. Nevertheless, I believe we can also be proud of our original extrapolations – five of which have now, finally, been published!

References

- Applegate, L.M. – Cash, J.I. – Mills, D.Q. (1988) Information Technology and tomorrow's manager. *Harvard Business Review*, Vol. 66, 128–132.
- Cooper, R. – Kaplan, R.S. (1998) The promise – and peril – of integrated cost systems. *Harvard Business Review*, Vol. 76, 109–119.
- Granlund, M. – Salmela, H. (2001) Extrapolating the Managerial Impact of Integrated Information Systems, an unpublished working paper.
- Leavitt, H.J. – Whisler, T.L. (1958) Management in the 1980's. *Harvard Business Review*, Vol. 36, 41–48.
- Markus, M.L. – Tanis, C. – van Fenema, P.C. (2000) Multisite ERP Implementations. *Communications of the ACM*, Vol. 43 (4), 42–46.
- Porter, M.E. (2001) Strategy and the Internet. *Harvard Business Review*, Vol. 79, 62–78.

Transparency of Sustainability Reporting: Listed State-Owned Enterprises vs. Non-State-Owned Enterprises

Dedicated to Markus Granlund on the occasion of his 50th birthday

Hannu Schadéwitz, Turku School of Economics, University of Turku

Markku Vieru, University of Lapland

Abstract

In this paper, we analyse whether there is a difference in the transparency of sustainability reporting between listed state-owned enterprises (SOEs) and listed non-state-owned enterprises (non-SOEs). Employing theoretical approaches (chiefly stakeholder and legitimization theories), we concluded that a wider set of assignments and duties for SOEs call on these companies to expand their sustainability reporting relative to non-SOEs. Transparency is quantified using the widely applied GRI index and its sub-indices. The proposition receives strong support from Finland, where the state is the most significant owner of listed companies in Europe. The result suggests that the state as a shareholder of a listed company results in an observable distinction in a company's reporting environment. Finally, we suggest several avenues for further research.

Introduction

Rationale for the study

Corporations are important organs in modern societies. As a nexus of contracts (Coase, 1937), they enhance contract efficiency and the functioning of capitalism in modern market economies in an especially fundamental way. Accounting information has a significant role to play in these contracts, with regard to which Lambert (2003) states:

“In the late 1970s, a new perspective on the role of accounting numbers emerged based on contracting theory ... Even sophisticated parties are limited in their abilities to write complicated contracts that incorporate numerous performance measures and numerous contingencies. Disciplining managers via the corporate governance process can also be a costly and time consuming process. Under such a viewpoint, a small number of good summary measures is extremely valuable because it saves on contracting costs, which, broadly defined, can be quite substantial.”

The above citation captures the idea of the usefulness of accounting figures in contracts. The potential to quantify various matters in a company varies substantially. For example, money transfers or money reserves can be counted very precisely. On the other hand, quantifying matters such as intangibles or brands can be extremely challenging. For non-state-owned enterprises (non-SOEs), company targets are usually relatively narrow, focusing on the maximisation of shareholder value. SOEs usually display greater variety in terms of company targets. Besides maximising shareholder value, there could typically be special ecological and/or social targets as well. In Finland, state ownership for certain companies is solely on a commercial basis with expectations of economic return on invested capital. Furthermore, the Finnish state is an active owner of several listed companies, where it has other targets aside from a plain return in commercial terms. These firms, with special state assignments, have a multidimensional target set to follow.

The firm’s wider target set implies there is more to be communicated to various stakeholders. Communication issues are a particular focus in dealing with special assignment SOEs. Besides typical economic issues with accounting measures, SOEs increasingly need to communicate social and environmental matters, too. In particular, SOEs face a high demand to execute and also communicate social and environmental dimensions of their operations. In practice, this aspect is also likely to reflect corporate communications and their corporate social responsibility reports (CSR reports). The state’s steering role in corporations has to balance multiple targets (Financial Annual Report, 2015, p. 13):

“As an owner, the State shall act as transparently and responsibly as possible. Its policies must enjoy confidence on the securities market in order to ensure that the State’s involvement as a major owner will not diminish the value of the listed companies included in its investment portfolio. At the same time, the business associates and competitors of the commercial companies must be able to trust that such companies enjoy no special privileges because of State shareholdings.”

The state's role regarding corporations' operations is highly multidimensional. To begin with, the state offers all companies a statutory-driven platform to operate and e.g. raise share capital and pay taxes. In Finland, the state has historically been a significant actor e.g. in heavy industry. Despite the trend to privatize SOEs in the 1980s and 1990s, they are and will be an important part of the Finnish economy (Kankaanpää *et. al.*, 2014). In Finland, the state has various roles in its ownership and ownership steering. There are different types of state-owned company: listed companies (15), commercial companies (21), and special assignment companies (21) with a specific state-defined mission (Financial Annual Report, 2015).

State ownership can be related to steering with various degrees of intensity. When state ownership is purely a matter of investment, steering may be minimal. The objective of ownership and steering in this listed company commercial group is financial benefit (dividends, market value of the company). The vast majority of listed SOEs fall into this category.

But there are also special assignment companies among the listed state companies, which serve a specific predetermined function as effectively as possible (Financial Annual Report, 2015, p. 12). The state has a majority ownership in each of these special assignment listed firms, i.e. the state shareholding exceeds 50%, and as the majority shareholder (majority control) could execute strong steering. From the legal standpoint, state ownership has certain steering challenges regarding e.g. fiduciary aspects of board responsibilities (Nyström, 2016). The question is what the limits of state steering are for SOEs, especially when a firm is in the special-assignment category. When an SOE is listed, it is required to follow all the regulations concerning listed firms. For example, all shareholders should be equally informed. As the State Ownership Department states (Financial Annual Report, 2015, p. 13):

“In terms of practical ownership steering, there is a fundamental distinction between listed and non-listed companies, because the latitude given to the management of listed companies to inform a single shareholder is strictly limited.”

The above citation indicates that privileged information supply is not permitted. Furthermore, the state's involvement as a major owner in an SOE should not diminish the value of that company. As stated in the Financial Annual Report (2015, p. 13):

“At the same time, the business associates and competitors of the commercial must be able to trust that such companies enjoy no special privileges because of State shareholdings.”

SOEs should inform their operations by means of mandatory and voluntary reporting. It is interesting to analyse how SOEs overcome challenges regarding the state's special role as an owner; for example, how the state's ownership goals, steering principles, and pursuit of social benefits, are communicated via voluntary corporate sustainability reporting. Our hand-collected sustainability reporting data facilitates the comparison of voluntary communication between SOEs and non-SOEs. Specifically, our quantification of firms' sustainability reporting informs us whether SOEs' sustainability reporting (overall reporting or reporting components) reflects the state's function as an owner, as a steering organ, or some other special purpose as well.

Theories do not guide us directly on how reporting is affected by the state-ownership function, therefore we need empirical enquiry to shed some light on the phenomenon under analysis. The findings could clarify the state's influence in SOE ownership and steering roles concerning the investing firm group and special assignment firms. We focus here on listed companies because in the Finnish economy they play an important role. For example, the market capitalization of SOEs relative to GDP is higher in Finland than anywhere else in Europe (Financial Annual Report, 2015). Furthermore, the state's interest regarding its companies is diverse; some are owned solely for commercial, investment, purposes, others for special assignments, and in further cases a hybrid type of ownership exists combining commercial and special-assignments purposes. Last but not least, Finnish SOEs have a national societal role to play. The Financial Annual Report (2015, p. 13) informs us that, as an owner, the state calls for transparency in all corporate activities, respect for employees, responsible environmental actions, and equal opportunity objectives for career advancement on boards and in executive management. Also, the management of state assets must enjoy public confidence.

Multidimensional approach

Listed company status creates a good supply of and access to publicly available data. It is interesting and important to analyse how SOEs handle CSR issues in their reporting as such, and compared to non-SOEs. We have quantified CSR information from corporations' CSRs, executed by a multidimensional scoring scheme that comprises six sub-indices: economic (EC), environmental (EN), labour practices and decent work (LA), human rights (HR), society (SO), and product responsibility (PR). In addition to these modules, we have information on the external assurance of the CSR report, GRI content comparison, and GRI application level.

The main reason for the multidimensionality approach is our intention to capture a good overall picture of each firm's CSR orientation. Also, the sub-indices

facilitate more precise zooming on the items of interest. We do not fixate on a specific theory in analysing the CSRs. Instead, we let the data guide us in drawing conclusions regarding the CSRs, and in what it tells us about SOEs' positioning regarding steering and sustainability themes, and compared to other listed firms. Furthermore, there could be indications e.g. legitimating certain actions or emphasizing certain stakeholder groups, such as employees, in the CSR reports. Our paper proceeds as follows. The theoretical foundations and hypotheses are derived in section two. Section three displays methods and data. Results are presented and interpreted in section four. Section five presents the conclusions.

Theory and proposition

Theory

There is no dominant theory that could explain SOEs' steering or their communication using CSR reports. However, in general, SOEs face a wider set of stakeholders' interests compared to non-SOEs that are listed. Bearing that in mind, it could be said that the theories applied to listed non-SOEs are applicable also to listed SOEs. In principle, special assignments for listed SOEs cause additional costly operational and, in turn, communication demands for listed SOEs. In line with this, it is logical to anticipate that these special characteristics in listed SOEs' operations reflect also their firm-to-else communication in their CSR reports.

According to legitimacy theory, a firm legitimizes its actions taken. For example, environmentally sensitive industries could emphasize their environmental protection activities in order to legitimize their use of natural resources in their operations. When the focus is more on various groups of users of CSR reports, the applicable theory is stakeholder theory. It proposes that firm communication emphasizes the information needs of the most relevant stakeholders for each particular firm. Agency theory can be seen as a more general theory than those presented above (Jensen & Meckling, 1976). It captures the multi-principal-agency setting characteristic of SOEs (Kankaanpää et. al., 2014). Agency theory does offer some elements needed in hypotheses development. The logic goes that agency problems are likely to be more severe in SOEs than non-SOE listed firms, which emphasizes the demand for wider reporting. These agency theoretical challenges, typical to listed SOEs, are due to special assignments for those firms and also the state's overall role as an influential owner. It is possible that some investors see state ownership as a potential source of friction, and furthermore, it is historically associated with some degree of rigidity.

Accurate and timely information is essential for capital markets and the efficient allocation of capital. Shareholder demand for information is central to capital markets. If the state does not demand any strategic duties of a company, it is free to function solely on a business basis. If the state demands strategic duties, those should be taken properly into account. Such duties, or lack thereof, and how they are affecting the firm, should be communicated to various stakeholders. This information, in turn, should assist stakeholders in making informed decisions on e.g. whether or not to invest in a particular firm.

Theoretically, investments should be allocated to positive net present value projects. Investing in firms with strategic duties originating from the state can be tricky. It is not clear-cut how those duties affect the firm and its potential as an investment now and in the future.

Theory and empirical findings support the positive association of a firm's accounting performance and shareholders' returns. However, when a firm is responsible for specific duties originating from the state, firm evaluation becomes much more complicated. This, in turn, creates high communication demands for the firm, as all relevant information must be disseminated in a timely fashion for various stakeholder groups. Publicly listed firms are in all actions obliged to ensure equal treatment of all shareholders (Kankaanpää, Oulasvirta, & Wacker, 2014; Liu & Sun 2005).

In addition, corporate social responsibility is in the spotlight when state-owned companies come under scrutiny. This has been characterized and elaborated in a government resolution on state-ownership policy (2016, appendix 3). The citation below indicates the special orientation state-owned firms should follow in all their operations (op. cit., Appendix 3, p. 32):

“Values provide the foundation on which all decision-making is based. State-owned companies must set an example when it comes to value leadership and corporate social responsibility as part of the values determined for the company. Underlying this concept is the idea that the success of a company is largely determined by the success of the community in which it operates.”

At a more practical level, the government resolution also contains requirements for CSR and its reporting (op. cit., p. 32):

“As an owner, the State expects companies to closely integrate corporate social responsibility into their business operations and efficient CSR management based on the identification of the issues essential to the company. The company's board of directors is responsible for organising the CSR management and for integrating it into the company's business operations.”

“Wholly state-owned and state majority-owned companies will, at their annual general meetings, report on the attainment of the measurable corporate responsibility goals they have set, on the measures taken to attain these goals and on the goals set for the following years. Similarly, the state owner requires the companies to report on corporate social responsibility in their annual reports. This reporting should be made a more integral part of the other business reporting of the companies.”

Furthermore, the state as owner references general guidelines and principles favourable with regard to CSR for firms to follow in their activities, including the OECD Guidelines for Multinational Enterprises, UN Global Compact initiative, ISO 26000 Social Responsibility guidance standard, and UN Guiding Principles on Business and Human Rights (op. cit., p. 33).

Our paper will focus on listed companies with the State of Finland as an associate shareholder and majority shareholder. State ownership exceeds 50% of the shares in each firm assigned a strategic duty by the state.

Performance measurement for firms with no special duties has a long tradition and conventions in financial statement analysis and the finance literatures (Koller, Goedhart, & Wessels, 2010; Palepu, Healy, & Peek, 2016; Stolowy, Lebas, & Ding, 2013). Contrary to that, the literature on the evaluation of the significance of other strategic duties on firm performance and valuation is diverse and heterogeneous. Furthermore, there is a lack of theory guiding performance evaluation and valuation for firms with specially assigned duties. Those duties can impact the firm’s profitability e.g. by limiting its resources to execute projects with the highest anticipated NPVs. In addition, stakeholders may have various views on how special duties affect the firm’s profitability and potential to act rapidly and flexibly when needed. It is possible that special duties bring some rigidity to a firm and limit also its options for available alternatives and investment opportunities.

Especially in voluntary types of financial reporting, such as sustainability reporting, the firm is at liberty to decide on the content of its report. Various theories exist to explain the content of financial reporting. The agency theoretical explanation (Jensen & Meckling, 1976) is information asymmetry between principal and agent, i.e. financial reporting is a tool to diminish that gap and signal firm quality.

Other theories emphasize stakeholders (Deegan & Unerman, 2006), e.g. shareholder theories prioritize shareholders’ information demand in reporting. Stakeholder theory explains reporting as the information demand of key stakeholders. According to legitimacy theory, reports are used to legitimize firms’ actions, e.g. by emphasizing certain themes such as environmental activities or safety initiatives to downplay information on negative implications of firm activities (Deegan & Unerman, 2006).

In sum, firms with special duties assigned by the state have particular challenges in their communication to their stakeholders. This paper focuses on one periodical communication channel, sustainability reporting, that is likely to reflect and indicate managers' intentions regarding important matters to communicate to the firm's stakeholders. Furthermore, reporting as such indicates also valuable information on whether there are certain stakeholder groups that are prioritized in listed state-firms' reporting.

The government resolution on state-ownership policy (13.5.2016) lists five justifications for state ownership: natural monopoly or special assignment, financial interest, strategic interest, creation of something new, and defending Finnish ownership.

Proposition

Theory does not inform us on exactly what listed SOEs should communicate in their CSR and how they should go about it. Despite the lack of clear and strong theoretical guidance regarding firm-to-else communication with listed SOEs, some special interests of state as an owner provide a basis and direction for a general proposition. Specifically, different kinds of special assignment and duty for listed SOEs create the need for expanded CSR reporting, not the other way around. The demand for information among stakeholders of listed SOEs is likely to exceed that for other listed firms. Logically, this demand should be especially pronounced for SOEs connected to the state's strategic interests.

In sum, we propose that information in listed SOEs' CSR report or reporting is of a higher quantity and quality (greater transparency) than that of non-SOEs.

Methods and data

Methods

Data collection and scoring were executed as follows. We traced corporate responsibility reporting through the index created by the Global Reporting Initiative (GRI, <https://www.globalreporting.org/Pages/default.aspx>). It comprises indicators for firms' underlying economic responsibility, environmental responsibility, and social responsibility. The index scored a total of 79 main items in 6 modules as follows: economic indicators (EC) 9, environmental indicators (EN) 30, labour indicators (LA) 14, human rights indicators (HR) 9, society indicators (SO) 8, and product responsibility indicators (PR) 9. If all applicable items for a particular firm

are reported, a firm receives the index value 100. Less than complete reporting of traced items decreases the index value.

We used a scoresheet for the CSR reports, aided by a handbook consulted for additional guidance. We pilot-tested the scoresheet during the preparation of the handbook, carefully informed for the process, and items that called for discretion were scored on consensus. The pilot test phase helped us finalize the protocol for data collection and scoring (Appendix 1). The handbook acts as a guide on how the scoring should be executed in general and in special cases.

Data

Our data comprise all NASDAQ OMX Helsinki listed firms (main list) that have published either a CSR report (primary data source) or documented CSR information in their annual report (secondary data source). That produced a total of 117 firms, of which 104 were non-SOE and 13 SOE. For firm-year observations, this produced 208 non-SOE observations and 26 SOE observations. The years covered and scored were 2011 and 2012. In ten firms, the state has a strong shareholder interest, and in three, the company is connected with the state's strategic interests. The strategic interests of those three firms are summarised and categorized as follows (Government resolution on state-ownership policy, 2016, pp. 23-25):

Finnair. Definition of strategic interest:

“Further development of Finland’s position as a hub of international aviation.”

Fortum. Definition of strategic interest:

“The strategic interest is to secure the sufficiency of electricity production also under exceptional circumstances.”

Neste Oil. Definition of strategic interest:

“The strategic interest is to secure nationwide fuel supply with due regard to security of supply considerations.”

Appendix 2 contains a summary of all listed SOEs.

Results

Descriptive statistics

Descriptive statistics for the sample firms are given below.

Table 1 Mean GRI index scores for SOEs and non-SOEs

Year	SOEs		non-SOEs	
	2012	2011	2012	2011
Mean GRI index value	53	51	18	15
Number of firms	13	13	104	104
Number of scorings	13	13	104	104

As Table 1 above shows, mean sustainability reporting quality is higher among SOEs than non-SOEs in both years 2012 and 2011. We performed also a t-test (one tailed) for equality of means of GRI indices between SOEs and non-SOEs. The test results confirm that the GRI index means deviate highly significantly (exceeding 0.1% level) between SOEs and non-SOEs in both years.

The difference in mean GRI values is not the only difference recognized between SOEs' and non-SOEs' sustainability reporting orientation and practice. Table 2 below displays the use of assurance services by these firms regarding their sustainability reporting.

Table 2 Usage of assurance services for SOEs and non-SOEs

Assurance category	SOEs		non-SOEs		Total	
	n	(%)	n	(%)	n	(%)
Assured	19	73	25	12	44	19
Not assured	7	27	183	88	190	81
Total firm-years	26	100	208	100	234	100

Table 2 reveals a clear difference in the usage of assurance services between non-SOEs and SOEs. The vast majority (88%, firm-years) of non-SOEs do not employ assurance for their CSR reports, while almost three quarters (73%, firm-years) of SOEs do have their CSR reports assured. The assurance practice was identical for both years 2012 and 2011 (except for one firm) for SOEs, and practically so for non-SOEs. All SOE firms where the state has a strategic interest (Finnair, Fortum, Neste Oil) are assured. The CSR reports of some SOE firms are not assured. We discuss and elaborate further on this matter in the next subsection.

Firms follow GRI guidelines to different degrees of intensity, and the level can be disclosed in the report. GRI levels from the lowest to highest are C, C+, B, B+, A, and A+. Level C indicates that the firm is at a very early phase of its GRI reporting, and in many ways fulfils and reports the GRI content index only partially. Level A+ shows that the firm comprehensively satisfies and fully reports all the relevant GRI content index items.

Table 3 GRI content levels for SOEs and non-SOEs

GRI level	SOEs		non-SOEs		Total	
	n	(%)	n	(%)	n	(%)
A+ (highest)	3	13	7	16	10	16
A	2	9	1	2	3	4
B+	13	59	10	24	23	36
B	2	9	15	35	17	26
C+	1	5	1	2	2	3
C (lowest)	1	5	9	21	10	15
Total firm-years	22	100	43	100	65	100

Table 3 above indicates that, in general, firms are reporting at a wide variety of GRI levels. Overall figures show that the most frequent GRI level is higher in the SOE category than in the non-SOE. Furthermore, GRI levels in SOE are, generally speaking, higher than in non-SOE. For SOEs, B+ is the most often used reporting level. Furthermore, only 19% (firm-years) in the SOE category report below B+. For non-SOEs, the most frequent reporting level is B followed by B+. These two levels comprise 59% of firm-year observations in the non-SOE category.

Table 4 GRI reporting forum for SOEs and non-SOEs

Channel for reporting	SOEs		non-SOEs		Total	
	n	(%)	n	(%)	n	(%)
Separate sustainability report	17	65	37	18	54	23
Part of annual report	9	35	171	82	180	77
Total firm-years	26	100	208	100	234	100

Table 4, in line with the descriptive statistics above, indicates one more difference between SOE and non-SOE sustainability reporting. The figures clearly show that SOEs communicate more frequently with separate sustainability reporting than do non-SOEs. In figures, 65% of SOEs use separate sustainability reports to

communicate their sustainability, while 82% of non-SOEs communicate sustainability issues as part of their annual report. This is yet another indication that SOEs have invested more resources in CSR reporting than have non-SOEs.

This section has characterized general differences, and next we analyse the next layer of sustainability reporting, i.e. what scores GRI modules for SOEs and non-SOEs receive.

GRI sub-index scores

In this subsection, we analyse GRI index components (sub-indices). Table 5 below summarizes all six sub-indices for SOEs and non-SOEs separately for both years.

Table 5 GRI sub-indices scores for SOEs and non-SOEs

GRI sub-index (no. of items)	SOEs		non-SOEs	
	2012	2011	2012	2011
Economic (9)	50	50	28	26
Environment (30)	52	51	17	14
Labour (14)	53	51	21	17
Human rights (9)	44	43	11	8
Society (8)	62	55	16	12
Product responsibility (9)	44	40	15	12

Table 5 provides several insights into the composition of CSR reporting. In general, Table 5 lends additional support to the view that CSR reporting for SOEs receives higher index scores than non-SOEs. The same is true with sub-indices. All six sub-indices for SOEs receive higher values for both years than sub-indices for non-SOEs. This supports the view that, on average and using the total index or sub-indices, SOEs are more transparent in their sustainability than non-SOEs.

Our stated proposition is that information in listed SOEs' CSR reports or reporting is of a higher quantity and quality than CSR reports or reporting for non-SOEs. Reasons include, but are not limited to, the wide variety of demands for information among stakeholders of listed SOEs, and the state's strategic interest in its ownership of certain transportation and energy sector firms (Appendix 2). It is quite natural that the communication of strategic interests creates additional needs in communicating with stakeholders. In addition, strategic interests are not necessarily always aligned with profit or shareholder maximization objectives. This, in turn, could create additional communication needs.

Table 5 shows that for 2012 the society performance index received the highest score among SOE sub-indices, value 62. The SO index value supports the view

that SOEs pay attention to communicating society-related matters in their sustainability reporting, on themes such as corruption and compliance. The second and third highest scores are for the labour practices and decent work performance indicator (LA: 53), and environment performance indicator (EN: 52). Fourth highest is economy (EC: 50). For non-SOEs, the EC performance indicator scores the highest value of the GRI sub-indices (EC 28). This finding is consistent with the view that non-SOEs focus particularly on economic performance, and stakeholders are served with that information in sustainability reporting.

The human rights performance indicator (HR) and product responsibility (PR) both receive the lowest score value, 44, for SOEs. It should be noted that even this lowest index value for SOEs is clearly higher than the highest index value, EC: 28, for non-SOEs. In this sense, SOEs are setting a good example in sustainability reporting and its transparency.

A comparison of the index values for 2012 and 2011 shows some positive, mild, development regarding the sub-index values in both SOE and non-SOE categories.

This paper discusses the results, in line with the proposition, at an aggregate level. Firm-specific reporting strategies offer interesting and important insights, and a few observations on firm-specific sustainability reporting strategies follow.

In general, three firms with state strategic interests (Finnair, Fortum, Neste Oil) performed above average for SOEs in sustainability reporting. Compared to SOEs with a shareholder interest, SOEs with strategic interests present both higher average overall CSR index scores and higher average sub-index scores. In addition, SOEs with strategic interests attain GRI level B+ or better, and deliver separate sustainability reports. Overall, SOEs with strategic interests are solid performers in terms of their CSR reporting and assurance.

Somewhat contrary to the fairly positive CSR reporting of SOEs with strategic interests, it should be noted that some SOEs do not perform as well, i.e. have lower reporting index values. For one firm in the banking sector, sub-indices reveal an emphasis on economic (EC) matters in its CSR reporting. For one in the mining sector, sub-indices reveal an emphasis on environmental (EN) and economic (EC) matters. The mining firm also demonstrates transparency in labour (LA). Furthermore, the statement of an assurance provider makes recommendations, among others, for further development in sustainability reporting. On some uncertainties faced by the mining company, the assurance provider recommends those be taken into account in interpreting the information. Finally, the assurance provider recommends the eventual impacts should be presented to stakeholders immediately, once a reasonable level of certainty on those impacts is met.

Conclusions

In this paper, we have analysed the transparency of sustainability reporting by focusing on listed SOEs vs. listed non-SOEs. The theme is important from both the theoretical and empirical angles. In terms of theory, having the state among a listed enterprise's owners creates positive and negative expectations. The positive side is typically linked to stable ownership, wide responsibility, and the recognition of a wide variety of stakeholders. The negative side, in turn, is typically linked to rigid decision making, overlooking other shareholders, and political frictions. We focused on CSR reports in order to see whether there are reporting differences between SOEs and non-SOEs. Our proposition, inspired primarily by legitimacy theory and stakeholder theory, stated that information in listed SOEs' CSR reports or reporting offers a higher quantity and quality (greater transparency) than the CSR reports or reporting of non-SOEs. We analysed this proposition using sustainability reporting data published by all listed firms (main list) on NASDAQ OMX Helsinki during 2011 and 2012. Although, relative to other European countries, state ownership among listed firms is highest in Finland, the analysis suffers from a lack of matching pairs sample design. Transparency in these firms' CSR reports or reporting was quantified using the widely applied overall GRI index and its sub-indices (Economic, Environment, Labour, Human rights, Society, and Product responsibility).

Both the index types, the overall GRI index and the sub-indices, supported our proposition. Information in SOEs' CSR reports was more transparent overall, and also according to the sub-indices. In addition, SOE reports were more frequently assured and higher ranked (in terms of the GRI level) compared than non-SOEs.

We found also differences within the SOE group. Specifically, SOEs with state strategic interests publish, on average, higher quality GRI reports compared to the rest of the SOEs. This finding also held when reporting quality was measured by sub-indices. We analyse also SOEs that perform below average in their reporting category. In this respect, there was one firm from each of the banking and mining sectors. Their reporting was in an emerging phase. For the mining firm, an assurance provider had in an independent assurance statement delivered guidance and some interpretation principles regarding disclosed CSR information.

In sum, original CSR reporting materials support the conclusion that SOEs have, in general, invested more resources in their CSR reports and reporting than non-SOEs. This, in turn, shows up as higher transparency both in overall CSR reporting and reporting components. These findings lead us to conclude that legitimization and stakeholder views have been recognized and acted on accordingly, and are also in line with both theories. This holds with few exceptions in a couple of industries.

There are plenty of opportunities for further studies based on themes related to this paper. First, how changes in the Finnish Parliament from one election period

to another affect state-ownership steering. Are there some discontinuities during these change periods?

The second theme could focus on reasons why SOEs' CSR reports are more transparent than non-SOEs. Our results show that SOEs were on average better CSR reporters than non-SOEs. This outcome is in line with state's role in the context of legitimization and stakeholders. Third, related to the second theme, scholars could study what is the state's role, executed steering and utilised channels that potentially affect SOE transparency.

Fourth, future studies could analyse the implications of CSR reports for stakeholders, including also stakeholders other than investors (Amel-Zadeh & Serafeim, 2017).

Fifth, an obvious area of study would be to analyse the intertemporal development of CSR reporting over several years. The focus here could be e.g. to analyse the permanence of changes in CSR reporting levels and potential reasons for these changes.

Finally, related to firm-to-else total communication quality, analysing potential association and especially direction of earnings quality and CSR reporting quality, could advance our understanding on enterprises' total communication activities to their stakeholders (Bozzolan, Fabrizi, Mallin, & Michelon, 2015).

Acknowledgements. We acknowledge and appreciate The Finnish Cultural Foundation for its grant. We are grateful to Mikael Niskala for sharing his expertise on GRI. For their able research assistance, we thank Pilvi Lehtinen, Severi Nordberg, and Ville-Matti Tarvonen.

References

- Amel-Zahed, A. – Serafeim, G. (2017) Why and how investors use ESG information: Evidence from a global survey. Harvard Business School, Working Paper 17-079.
- Bozzolan, S. – Fabrizi, M. – Mallin, C. – Michelon, G. (2015) Corporate social responsibility and earnings quality: International evidence. *The International Journal of Accounting*, Vol. 50 (4), 361–396.
- Deegan, C. – Unerman, J. (2006) *Financial accounting theory – European edition*. London: McGraw-Hill.
- Financial annual report (2015) *Government ownership steering*. Prime Minister’s Office, Steering Department. Helsinki: Lönnberg Print & Promo.
- Government resolution on state-ownership policy (2016) *Making the balance sheet work – Growth-generating ownership policy*. 13.5.2016.
- Jensen, M. C. – Meckling, W. H. (1976) Theory of a firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, Vol. 3 (4), 305–360.
- Kankaanpää, J. – Oulasvirta, L. – Wacker, J. (2014) Steering and Monitoring Model of State-Owned Enterprises. *Journal of Public Administration*, Vol. 37 (7), 409–423.
- Koller, T. – Goedhart, M. – Wessels, D. (2010) *Valuation: Measuring and managing the value of companies (5th ed.)*. New Jersey: Wiley.
- Lambert, R. A. (2003) Discussion of Limited attention, information disclosure, and financial reporting.” *Journal of Accounting and Economics*, Vol. 36 (1–3), 387–400.
- Liu, G. S. – Sun, P. (2005) The class of shareholdings and its impacts on corporate performance: A case of state shareholding composition in Chinese public corporations. *Corporate Governance: An International Review*, Vol. 13 (1), 46–59.
- Nyström, P. (2016) *Osakeyhtiön hallituksen fidusiaariset velvollisuudet*. Suomalaisen lakimiesyhdistyksen julkaisu, A-sarja 332, Helsinki: Suomalainen Lakimiesyhdistys.
- Prime Minister’s Office (2016) *Government ownership steering – financial annual report 2015*. Helsinki: Lönnberg Print & Promo.
- Palepu, K. G. – Healy, P. M. – Peek, E. (2016) *Business analysis and valuation: IFRS edition (4th ed.)*. Australia: Cengage.

Stolowy, H. – Lebas, M. J. – Ding, Y. (2013) *Financial accounting and reporting: A global perspective (4th ed.)*. Australia: Cengage.

Appendix 1. Compressed protocol for data collection and scoring

Situation 1: The company has published a CSR report.

We collect data primarily from the CSR report because going through the annual report in these cases doesn't add any value. Only if there is a reference to either the annual report or webpages do we take into account and analyse the information.

Situation 2: The company hasn't published a CSR report.

We collect the data from annual reports. We search with keywords for each GRI item to find the data from the report. All information, even if it is not targeting CSR matters explicitly, will be scored. The keywords systematically applied will be registered in order to facilitate the replication of the results now obtained. The prior discussion on collecting data only from CSR related parts or modules of the reports, or only collecting data reported targeting CSR matters, is now abandoned. Reason: There is no established practice on how firms report CSR related matters when they report them in annual reports, so this key words based search is the most reliable way we are aware of in which to collect data.

Scoring rules

Basic rule: all indicators will be scored 0, 0.5 or 1.

For indicators where two different kinds of information is required, e.g. percentage and amount, or actions taken and amount, we mark 1 if both are covered and 0.5 if only one is covered. No information at all = 0.

For indicators where we have more than two information needs, such as age group, gender and region, we score: 0=no information, 0.5=partial information, 1= full, or almost full information.

For indicators where we have many subsections (such as EN1, EN3 etc.), we mark 1 at the top summary/heading row, if any of the subsections is covered, or if the total amount is given. For every reported subsection we also mark 1.

Additional/specific rules:

EC1 This item will be scored only once, so the subsections (personnel, suppliers, etc.) will not be scored separately. To receive the score 1, the company has to deliver EC information in a fashion that discusses economic value generated and distributed. If a company does not discuss this at all, and only releases numbers as the law requires (in different parts of the financial statement), the company will be scored 0. In order to score well here, the company does not have to cover all subsections. It is sufficient if it can clearly be seen that the company discusses the

matter. We can also score 0.5 here, if the points mentioned are discussed, but only briefly.

EN1 also fuel can be a material if it is used in the final product.

EN4 (and other similar items) can also score 0.5: 0.5: 0.5. If electricity and heat are reported but not by a primary source, this yields a score of 0.5: 0.5: 0.5.

LA5 To score 1, the company has to report specific periods of time. So, by reporting “we do this as required by law” only gets the score 0.5.

LA7 We will add a row for region. Basically, we will remove region from the top row and add a row for it under the top row. Now “region” is a subsection to LA7 (comparable with industrial accidents, deaths, etc.). This way LA7 is comparable with other similar GRI items such as EN20. The issue here, as with other items on the scoresheet, is that we don’t want the top row to “require” any extra information, i.e. information that is not covered by the subsections.

LA10 subsection “other countries” will be omitted.

Composition of the Board (subsection to LA13) is scored as a percentage.

Comparative data column: We mark 1 every time some information is given. No matter if it is the same or different to that in the 2011 report. Also information given as a percentage change from last year will be scored.

Companies that have reported their CSR according to GRI. We have to look through every GRI item, even if the company reports it as “reported”, because the item may have different information needs in the GRI index of the company compared to our GRI index.

At the very bottom, we have the row “source of information” where c=CSR report and a=annual report.

All in all, the rules listed above can’t cover all the issues that arise during scoring. These are basic rules that cover most of the scoring, but an item may crop up which we don’t have a specific rule on how to score. In these situations, it is up to the data collector to use their best knowledge. If a specific item is continually problematic, we can discuss it and produce a more specific consensus rule on how to score the item.

Appendix 2. SOEs in the study and their state-ownership steering

Category A: Listed companies where the state as an associate shareholder
Ownership Steering: Solidium.

- Elisa Corporation
- Kemira Oyj
- Metso Corporation
- Outokumpu Oyj
- Outotec Oyj
- Rautaruukki Corporation
- Sampo Plc
- Stora Enso Oyj
- Talvivaara Mining Company Plc
- Tieto Corporation

The state's role in category A companies is expressed as follows (Prime Minister's Office (2016), p. 67):

“The State as an owner has only or almost exclusively a strong shareholder interest.”

Category B: Listed companies where the state is a majority shareholder
Ownership Steering: VNK.

- Finnair Plc. Strategic interest of ownership: *To ensure effective air services in Finland.* (Financial Annual Report, 2015).
- Fortum Corporation. Strategic interest of ownership. *To also ensure sufficient electricity generation in exceptional circumstances* (Financial Annual Report, 2015).
- Neste Oil Corporation. Strategic interest of ownership: *To secure nationwide fuel supply with due consideration given to security of supply aspects.* (Financial Annual Report, 2015).

The state's role in category B companies is expressed as follows (Prime Minister's Office (2016), p. 67):

“Besides a strong shareholder interest, the company is connected with strategic interests owing to which the State is to remain so far a strong shareholder or to safeguard in other ways the strategic interests concerned, if the shareholding is reduced or relinquished.”

Abbreviations:

VNK = Ownership Steering Department in the Prime Minister's Office

Management Accounting Research – Key Untold Stories: A Congratulatory Limerick for Markus Granlund on His 50th Birthday

Jani Taipaleenmäki

Turku School of Economics, University of Turku

He's name is Markus¹, now seasoned not green.
Instead he's prominent in the research scene.
Academic, business-minded,
in his projects never blinded,
and in Alma Mater he was appointed the Dean.

Faculty member sharp-dressed and handsome.
Managing the School's expense and income.
Quick-witted and thrifty,
now turned fifty,
yet the best years are ahead to come.

Do you know what Granlund really means?
Can it be jeans, or black limousines?
Not any of the above,
Translates to spruce grove.
And nothing to do with counting beans.

Markus was my teacher in the business school,
on accounting as a planning and control tool.
Then with him to feature
as a colleague and co-teacher.
Those times were unforgettable, and so cool!

¹ Hence the title of this congratulatory limerick: Management Accounting Research – Key Untold Stories.

Our collaboration at work cannot possibly be better,
some joint research papers we have written together.

One published in a journal,²
work nocturnal and diurnal,
Feels like this co-authoring could continue forever.³

One more thing needs to be here documented,
Even though my career is practice-oriented.

In my path towards the PhD,⁴
Markus is the one supervising me.
- Academic coaching undoubtedly is splendid!

What has been important to both Markus and me,
has recently dealt with the digital and IT.⁵

Accounting – social science,
but technological reliance.
Unfathomable research avenues there will be.

While studying management accounting absence,⁶
for me, it all started to make sense.

Sharing values isn't strange,
but interest in the change,⁷
has remained the prevailing quintessence.

For listening Markus has a pair of good ears.
Our friendship remains through all the years.

On congress trips,
We shook some hips,
And yes, we dined – sipped wines and beers.

² Granlund & Taipaleenmäki (1995)

³ Taipaleenmäki et al. (2017)

⁴ Taipaleenmäki (2017)

⁵ Granlund (2011), Grandlund et al. (2013); see also Granlund & Taipaleenmäki (1999)

⁶ Taipaleenmäki (2014)

⁷ See e.g. Granlund (1998), Granlund (2001), Granlund (2003), Granlund & Lukka (1998), Granlund & Malmi (2002), Ikäheimo & Taipaleenmäki (2010), and Taipaleenmäki & Ikäheimo (2013).

So, there are many things we have done and seen,
but have you ever met a professor and a Dean,
who is tough like Rocky,
plays soccer and ice hockey,
and who misses Indiana Jones Pinball Machine.

As this limerick is now about to end,
to finish this poetic and professional blend,
In a festive mood,
I would like to conclude,
and congratulate my dear – and true friend.

References

- Granlund, M. (1998) *The Challenge of Management Accounting Change. A Case Study of the Interplay between Management Accounting, Change and Stability*. Turku: Publications of the Turku School of Economics and Business Administration, Series A-7:1998.
- Granlund, M. (2001) Towards explaining stability in and around management accounting systems. *Management Accounting Research*, Vol. 12 (2), 141–166.
- Granlund, M. (2003) Management accounting system integration in corporate take-overs – A case study. *Accounting, Auditing and Accountability Journal*, Vol. 16 (2), 208–243.
- Granlund, M. (2011) Extending AIS research to management accounting and control issues – A research note. *International Journal of Accounting Information Systems*, Vol. 12 (1), 3–19.
- Granlund, M. – Lukka, K. (1997) From bean-counters to change agents: the Finnish management accounting culture in transition. *The Finnish Journal of Business Economics*, Vol. 3, 213–255.
- Granlund, M. – Lukka, K. (1998) Towards increasing business orientation: Finnish management accountants in a changing cultural context. Finnish management accountants in their cultural context. *Management Accounting Research*, Vol. 9 (2), 185–211.
- Granlund, M. – Malmi, T. (2002) Moderate impact of ERPS on management accounting: a lag or permanent outcome? *Management Accounting Research*, Vol. 13 (3), 299–321.
- Granlund, M. – Mouritsen, J. – Vaassen, E. (2013) On the relations between modern information technology, decision making and management control. *International Journal of Accounting Information Systems*, Vol. 14 (4), 275–277.
- Granlund, M. – Taipaleenmäki, J. (1995) Management Control and Controllorship in New Economy Firms. *Management Accounting Research*, Vol. 16 (1), 21–57.
- Granlund, M. – Taipaleenmäki, J. (1999) Taloushallinnon työkalujen tietotekninen toteuttaminen [”Accounting and Finance Tools and Information Systems”]. *Tilisanomat*, Vol. 3, 34–40.

- Ikäheimo, S. – Taipaleenmäki, J. (2010) The Divergence and Convergence of Financial Accounting and Management Accounting – Historical and International Perspectives from the U.S., Germany, and Finland. *Die Betriebswirtschaft, Special Issue on Integration of Financial and Managerial Accounting*, Vol. 70 (4), 349–368.
- Taipaleenmäki, J. (2014) Absence and Variant Modes of Presence of Management Accounting in New Product Development – Theoretical Refinement and Some Empirical Evidence. *European Accounting Review*, Vol. 23 (2), 291–334.
- Taipaleenmäki, J. (2017) The Multifaceted (R)evolution of the Context and Practice of Management Accounting. Three Perspectives. Working Paper of Doctoral Dissertation.
- Taipaleenmäki, J. – Granlund, M. – Järvenpää, M. (2017) *Management Accounting in the Era of Big Data. Scenarios of Transformation*. Working Paper.
- Taipaleenmäki, J. – Ikäheimo, S. (2013) On the Convergence Of Management Accounting and Financial Accounting – the Role of Information Technology in Accounting Change. *International Journal of Accounting in Information Systems*, Vol. 14 (4), 321–348.

Towards Agile Management Accounting: A Research Note on Accounting Agility

Jani Taipaleenmäki

Turku School of Economics, University of Turku

Abstract

The purpose of this commentary is to initiate discussion on potential, which lies in capturing the transformation of accounting towards a more agile phenomenon in various dimensions and ways, particularly in management accounting research. By conceptualizing agile accounting in relation to enterprise agility and accounting change and by shedding light on digitalization, as well as contemporary technological advancements, combined with the contemporary paradigmatic trend of business agility in this respect, it is argued that these factors and drivers are reshaping the nature of management accounting, which is increasingly characterized by distinctive attributes associated with agility. On one hand, management accounting involved in planning, decision-making, and control supports corporate processes aiming at sensing environmental change and responding to the change, hence playing a crucial role in enterprise agility. On the other hand, the trend towards agility in business strategies and operations sets new agility-based requirements for management accounting, which can act as a driver for management accounting change. Drawing on cross-disciplinary academic literature combined with reflections from the recent developments in the practice, the drivers and the manifestations of accounting agility are discussed in this paper with certain illustrative examples representing elements from different levels and dimensions of management accounting. Furthermore, it is claimed that the management accounting change research, in particular, should acknowledge the various aspects of accounting agility, in order to explain and understand better both management accounting change and the dynamics of management control systems, in the future.

Keywords: Management Accounting Change, Information Technology, Agility

Introduction

Accounting is not a static phenomenon (Hopwood, 1987). Especially in management accounting domain there is a stream of literature focusing in management accounting (MA) change (for literature reviews see e.g., Granlund & Modell, 2005; Lukka, 2007; Suleiman & Mitchell, 2005; see also Burns & Vaivio, 2001), covering change in accounting systems, techniques and practices (see e.g. Burns & Scapens, 2000), and the role expansion of accountants (Granlund & Lukka, 1998; see also Granlund & Taipaleenmäki, 2005). This research note, opening a new window to accounting change, discusses these novel perspectives within entire accounting domain, but has its focus and priority contribution in management accounting (MA). As it is acknowledged that MA can take on a variety of forms, rather than ‘a set of techniques’, MA is defined here according to Chapman et al. (2007: ix): “Management accounting is a set of practices that are often loosely coupled to one another and varying across both time and space” (see also Chenhall, 2003; Malmi & Brown, 2008)¹. However, MA is considered and discussed in this paper not only as a corporate function and a profession, but also as a changing phenomenon in the society, reflected also in the changing relationship of management accounting and financial accounting (Taipaleenmäki & Ikäheimo, 2013; see also Hemmer & Labro, 2008; Ikäheimo & Taipaleenmäki, 2010), hence comprising technical, individual, behavioral, organizational and ontological dimensions.

The paradigmatic trend towards enterprise agility (or business agility) has been recognized both in business practise and in academic research. In business practice, enterprises aiming at agility implement autonomy and culture of self-responsibility. They seek novel approaches such as radical transparency and openness, lateral connectivity and trust with cross-functional teams, and prototyping with quick feedback and adaptation loops. Generally speaking, agility is frequently seen as a concept that extends adaptability and flexibility to include speed and scalability. It is also claimed, that to be an agile organization, the resilience of its employees, i.e. the capacity to recover quickly from difficult but oftentimes necessary changes, needs to be on sufficient level. Agile organizations are not only capable of change, but they are also nimble, capable of changing quickly and gracefully. (Baskerville et al., 2005; Dove, 2001) In this spirit, this commentary subscribes to both the concepts and the conclusion of Overby et al. (2006) that an agile enterprise is capable of sensing environmental change and responding readily to both predictable and unpredictable events, in order to survive and succeed in turbulent

¹ See also functionally oriented CIMA’s definition of MA (1996): “the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources”.

business environment, which is typically characterized by uncertainty² (see also Bradley & Nolan, 1998). The turbulence in both strategic and operative conditions is due to drivers or factors such as competitors' actions, changes in customer preferences or demands, regulatory or legal changes, economic shifts, and technological advancements with exponentially growing progress.³ In the literature, it is frequently concluded that IT enables enterprise agility (Overby et al., 2006; Pavlou & El Sawy, 2006) or operational agility (Tan et al., 2017).

Reflecting the discussed setting to accounting, it has recently been acknowledged that accounting and control cannot be studied apart from information technology (Dechow et al., 2007a and 2007b; Dechow & Mouritsen, 2005; Granlund, 2011; Granlund et al., 2013; Granlund & Malmi, 2002)⁴. Similarly, as IT has influenced and will be reshaping practically all industries and organizational functions and business processes, it has been and will be reshaping management accounting and the way MA is changing. Even if IT and digitalization⁵ plays a major role in the development of accounting systems, the literature in IT's impact on accounting change is still fairly scarce (see e.g. Rom & Rohde, 2007; Scapens & Jazayeri, 2003; Taipaleenmäki & Ikäheimo, 2013; Vaassen & Hunton, 2009). The enabling role of IT in enterprise agility has also been identified and analyzed e.g. by Overby et al. (2006), Weill & Broadbent (2002), and Sambamurthy et al. (2003).

Management accounting, as part of management control system (MCS) package (Malmi & Brown, 2008), supporting both planning and decision-making, is naturally involved in the corporate processes aiming at sensing environmental change and responding to the change, hence it can be claimed that management accounting and accounting systems, in general, play a crucial role in enterprise agility. On the other hand, the trend towards agility in business operations sets new agility-based requirements for management accounting, which can result in management accounting change. This mutual two-way relationship between management accounting change and enterprise agility will be discussed in this research note, focusing especially on the evident and multifaceted significance of the IT and technological advancements on the change towards accounting agility. In other words,

² Uncertainty is also one of the most widely researched contingency factor in the MCS design studies. Its fundamental role has been emphasized e.g. by Chenhall (2003) and Chapman (1997).

³ See also VUCA model, i.e. Volatility (the nature, speed, volume, magnitude and dynamics of change), Uncertainty (the lack of predictability of issues and events), Complexity (the confounding of issues and the chaos that surround any organization), and Ambiguity (the haziness of reality and the mixed meanings of conditions), which has been presented and further discussed by Horne et al. (2010), and Bennet and Lemoine (2014).

⁴ See also Granlund & Mouritsen (2003) and Hunton (2002).

⁵ In this paper, digitalization is defined to include both (1) the process of information creation moving from analog to digital, and the automation of existing processes (frequently referred to also as 'digitization') and (2) the process of becoming a digital business that transforms business processes ('digitalization' of business).

there is a need for conceptual analysis to facilitate future MA change research and to help structure further investigation of enterprise agility in general.

Hence, the purpose of this commentary is to conceptualize agile accounting in relation to enterprise agility and to initiate discussion on the potential, which lies in capturing the transformation of accounting towards a more agile phenomenon in various dimensions and ways, in MA research. The aim encompasses also discussing the ways and dimensions in which accounting agility becomes manifested, especially within the field of MA. Particular attention is paid to digitalization and technological advancements, combined with the contemporary paradigmatic trend of business agility, in discussing how the various factors are driving accounting agility and how MA is reshaped or transforming towards agility.

This research note draws heavily on an extensive literature review of major accounting journals and certain selected major AIS and IS journals. The conceptual analysis of this commentary also facilitates several other sources of information providing reflections from the recent developments in practice. These include data collected for the author's earlier studies on management accounting change, as well as experiences from the field. The author's professional background includes work experience as CFO of an ICT consulting company for twelve years and as business controller of a software and technology company for five years. Figure 1 below describes the above-discussed path towards agile accounting, which will be analyzed and discussed in more detail in the next sections. It should be noted that the changing factors in the operating environment contribute to the development towards agile accounting through enterprise agility and business requirements, but also directly as the accounting regulation, and accounting technologies etc. change and for example cost pressures typically affect the resources and organization of finance and accounting function.

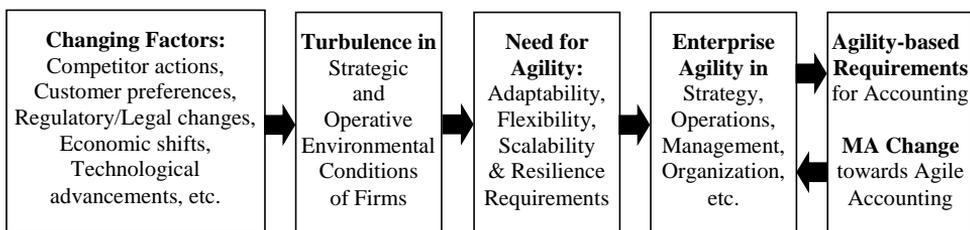


Figure 1 The path towards agile accounting

Conceptualizing accounting agility

As presented above, the rapidly changing factors are driving the turbulence in the operating environment of firms both on strategic and operational level conditions. When firms face the needs to transform into agile organizations due to these external factors, they attempt to adjust their business strategies and operations, as well as their organization and management systems and structures, in order to respond these change pressures. Companies with agile strategy continuously search for new business opportunities or business and revenue models, as well as even quick innovations (see e.g. Hugos, 2009). At the same time, operative plans and strategies are losing their power and can become obsolete. This in turn will be reflected in the agility-based requirements for accounting, and management accounting in particular.

In this paper, by presenting manifestations of management accounting agility both from the practice and literature, it is argued that the agility of accounting can be manifested on many dimensions and levels of accounting, firstly considering accounting as a part of control structure and MCS package on corporate level, secondly as (set of) tools, techniques and methods on corporate or functional level, thirdly as a profession and finally as a discipline or a societal phenomenon.

Manifestations of agility on various dimensions and levels of management accounting

Considering management accounting as a part of control structure and management control system package, and the above-discussed changing factors in the operative environment, *the corporate life cycle perspective, particularly related to new economy firms (NEFs) provides an example of how management accounting agility becomes manifested on corporate level*, in the organizational dimension, i.e. as part of the control structure. In their analysis of NEFs, Granlund and Taipaleenmäki (2005) identified the two-way relationship between corporate life cycle stage and management control developments as well as the life cycle ambiguity. They observed also diffusion of life cycle ambiguity from corporate evolution into management control systems (see also Moores & Yuen, 2001). The markets of a NEF are typically immature and the external operating environment is characterized by rapid changes (cf. Moore, 2001), i.e. both economic shifts and technological advancements, which evidently drive the need for enterprise agility and agility in management control.

Granlund and Taipaleenmäki (2005) emphasized also certain internal characteristics, such as R&D and knowledge intensity, technology driven culture, role of

venture capitalists, fast growth, new revenue models, and intangible products, which all are shaping MCS and controllership in NEFs, and at the same time as regards MA, causing immense amounts of fundamental accounting problems related to measurement, allocation, accruing, and valuation in cost accounting. How these characteristics are reflected in accounting agility is obvious. Time-to-market pressures in new product development have caused the shift to technology platform and modularity orientation, as well as requiring more flexible approach also from management accounting. All of the above factors contribute to future-orientation and short-term orientation of financial controls and management accounting agility. In general, the corporate life cycle changes have become, not least because of the advancements in IT, more fast-phased and actually forming a dynamic process of constant change. It can be argued, that the corporations facing this constant change are forced to seek also ways of managing the change and controlling the business in an agile way with more agile strategies and operations.

As the business organizations are facing pressures towards enterprise agility, which is reflected in their strategy, operations, management structures, organization, etc., the very same agility-based requirements are diffused into technical dimension and the very grass root level on the field of accounting, *namely management accounting tools, techniques and methods either on corporate or functional level*. It is unquestionable that increasing environmental uncertainty and accelerating rate of changes in operating environment affect especially the forward-looking planning practices in business organizations.⁶ These planning tools, methods and techniques, which support enterprise agility, include for example driver-based planning, what-if analyses and scenario analyses. As Heer (2012) argues, agile planning is about scenarios, which help to understand, what is behind the numbers. Applying real option theory in the investment decision-making process is also one of the approaches, which is adopted to increase flexibility⁷ (see e.g. Brennan & Trigeorgis, 2000).

Questioning the relevance of the traditional budget has prevailed recently both among the academics and the practitioners. Many alternatives for this have emerged, one of the first in the past was using flexible budgets, which adjust for changes e.g. in the volume of activity. Contemporary solutions reflect even more the stiffness of traditional budgets. Abandonment or non-use of budgeting (Ekholm & Wallin, 2001; Hansen et al., 2003; Hope & Fraser, 1997, 2003; Munro,

⁶ The results by Davila and Foster (2005), from their study on the adoption of MCS in start-up companies, indicated that firms tend to adopt MCS for financial planning more quickly than for control.

⁷ Brennan and Trigeorgis (2000) identify and discuss for example investment timing flexibility (ability to delay and optimally time the start), operational flexibility including options to vary operating parameters (e.g. shutting down and reopening, expanding, contracting and abandoning operations, optimizing cut-off grades, varying production rates as prices fluctuate) as well as flexibility in natural resource investments or in technology choices.

1995; Østengren & Stensaker, 2011; Wallander, 1999) as well as emphasizing forecasting over budgetary planning can be seen as a response to pressure to enterprise agility and hence also as a manifestation of accounting agility. Especially business operations managed together with rolling forecasts (see e.g. Scapens et al., 1996; Taipaleenmäki & Ikäheimo, 2013), serving also as an “early warning system” of a business, are in the core of sensing and responding, i.e. enterprise agility. Shorter planning and reporting periods, the increase analyses and other tasks of ad-hoc nature, as well as the streamlining of management accounting and reporting processes, can also be seen as a response to the pressures towards agility in accounting. Moreover, it can be argued that firms pay attention to agility requirements also when choosing or designing not only the planning methods but also the control tools and techniques. IT-assisted variance analyses, which are used in tracing the reasons for the differences between forecasted and even real-time actual financials (Taipaleenmäki & Ikäheimo, 2013; see also Emsley, 2001), are regaining popularity, which can be seen as another manifestation of management accounting agility.

In the organizational and behavioral dimension of MA, on the functional level, another manifestation can be found from the interface of management accounting and new product development (NPD), and the absence of accounting and formal financial controls in innovative and uncertain environments. Taipaleenmäki (2014) has problematized the equivocal results and paradigm shift, regarding the claimed positive impact of MCS on creativity and innovation (see also Adler & Chen, 2011; Dávila, 2000; Jørgensen & Messner, 2009) and based on his study described and explained absence and variant modes of presence of management accounting, with various explanatory factors, in NPD. Absence of accounting can actually be considered as one of the most fundamental manifestations of agile accounting, contributing to enterprise agility. In the situation where financial controls are fully absent, or replaced with only ‘accounting-thinking’ or concepts only⁸, the agility of MA is due to certain, for example, technical⁹, economic or functional¹⁰ factors or lack of reasons-for-adoption, which may be a response to environmental factors driving enterprise and accounting agility, or other contingencies or covariates such as environmental uncertainty and changing corporate priorities, causing turbulence in operations (Taipaleenmäki, 2014).

⁸ The evidence from Taipaleenmäki’s (2014) multi-organization study suggests that in certain situations, instead of adopting financial and accounting control tools and methods, only accounting concepts or accounting-based thinking can be adopted and mobilized as a management philosophy.

⁹ E.g. infeasibility, inadequacy, impossibility, inapplicability or lack of relevance in certain organizational setting due to e.g. nature of business, complex decision-making situation or lack of task routineness in R&D.

¹⁰ E.g. limited financial or human resources, cost-benefit of management accounting system, IT related restrictions.

Aligned with the challenge of introducing formal controls within flexible and innovative process, Malmi and Brown (2008, p. 289), in turn, acknowledge the agile organizations' operational realities and they have evidence which provides support for the above discussion. They argue that a contingent factor, such as an uncertain environment may have very different impacts on the accounting systems depending on whether the system is used for decision making or control. They emphasize that whereas environmental uncertainty may require broad scope of information, including financial, hence suggesting more extensive use of accounting, from behavioral perspective environmental uncertainty may require agile organizations with considerable employee empowerment and thus, less extensive use of accounting controls. One example of such agile organizations could also be the above-discussed new economy firms, typically characterized by creativity, informality, and a spirit of freedom (Granlund & Taipaleenmäki, 2005).

Generally, for the situations where accounting absence is a result of a conscious decision and action or inaction, Choudhury (1988), in his development work towards a theory of non-accounting in organizational settings, proposed the following examples of this 'virtuous' accounting absence: absence as trust (e.g., managerial attempt to foster commitment and trust in subordinates), absence as constructive ambivalence (e.g., managerial attempt to generate flexibility while facing a changing environment or pursuing an innovation strategy), and absence as symbol (e.g., managerial attempt to send unequivocal signals as regards the corporate priorities, e.g. symbolizing outward-looking stakeholder-focused view of an organization). Out of these three categories, the form of absence as constructive ambivalence is undoubtedly in the very core of accounting agility with behavioral implications. Accounting change within an organization may also be cyclical when new accounting technologies are adopted and then abandoned (Briers & Chua, 2001), which can also be seen as an IT-driven manifestation of accounting agility.

The development towards accounting agility in accounting is evidently manifested also *on the level of profession*, which is comprised of elements on individual, behavioral, organizational and technical dimensions. *This form of manifestation is associated with the skill requirements and everyday work, in terms of roles, duties and responsibilities of management accountants and controllers.* Along with accelerated change in business environment, especially due to technology advancements, as well as tightening competition and cost pressures, management accountants have faced a totally new situation, where they are required to act in both operative and strategic roles (Granlund & Lukka, 1998; Burns & Vaivio, 2001; Järvenpää, 2007) and even to adopt hybrid roles (Kurunmäki, 2004; Kurunmäki & Miller, 2011; Miller et al., 2008 and 2010; see also Newman & Westrup, 2005; Pierce, 2002 and Pierce & O'Dea, 2003) in the organizations. Zuboff (1988) was one of the first authors, who argued for the transformative power of IT and showed how IT is involved in changing work and power relations, as well as how it both

facilitates and reflects on profound organizational changes. Management accountants and business controllers have also had to develop rapidly their IT-related competences to be able to build and maintain advanced analysis and reporting systems with the modern technologies. Frequently they also take responsibility for managing implementation projects for MAS software. Notable is that whereas IT (e.g. robotic process automation, RPA, advanced machine learning and artificial intelligence, AI)¹¹ facilitates and drives the fact that routine accounting jobs will eventually become extinct, the proliferation of technology-driven jobs will continue in the foreseeable future. One example of this has been reported by Newman and Westrup (2005), who claimed based on the findings of their study on the adoption of a new ERP system, that new hybrid roles may emerge for accountants (see also Hyvönen et al., 2009).

The complexity of contemporary business environments leads inevitably to higher volume, velocity and variety of available data sets, most of which are increasingly unstructured, for business management (see big data definitions by CGMA, 2013 and Bayer & Laney, 2012).¹² Hence, the big data era, with fast-phased data-driven (need-based) changes and technology-driven (possibility-based) changes in business and management (Taipaleenmäki et al., 2017) can be seen as one of the most significant examples of the IT-driven manifestations on the profession level in the path towards enterprise agility and agile accounting. Drawing on Zuboff (1988), Taipaleenmäki et al. (2017) have analyzed the effect of Big Data (BD) on business models, management control and decision-making,

¹¹ Gartner (2016a, see also 2016b) predicts the rise of 'intelligent digital mesh'. "The mesh refers to the dynamic connection of people, processes, things and services supporting intelligent digital ecosystems. As the mesh evolves, the user experience fundamentally changes and the supporting technology and security architectures and platforms must change as well." Based on Gartner's top 10 strategic technology trends for 2017, data science technologies and approaches are evolving to include advanced machine learning and artificial intelligence (AI) allowing the creation of intelligent physical and software-based systems that are programmed to learn and adapt.

¹² Big data is defined by CGMA (Chartered Global Management Accountant; consortium of AICPA and CIMA) both in terms of levels of analysis and scale and complexity of data. CGMA uses the term "big data" as shorthand for the massive increase in the volume of data now being used to garner new insights into business performance, opportunities and risks. In this study, big data concept is adopted from CGMA (2013) and is defined as follows: On top of the financial data and enterprise data (i.e. broader operational and transactional data used to bolster analysis and forecasting), big data includes new types of internal and external data much of which is unstructured, but some of which could yield new insights into business management. Hence, big data is seen here as an all-encompassing term for collection of business data sets so large and complex that it is difficult to process using on-hand data management tools or traditional data processing applications. Cf. Gartner's definition for big data: "Big data is high volume, high velocity, and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization" (Bayer & Laney, 2012). As a concept, big data is typically loosely defined. Some definitions emphasize the volume of data, some focus on the analysis methods, and some are based on the changes and impacts which big data may have (see Diebold, 2003; Quinn, 2013). Big data can also be seen as a certain kind of transformation in the paradigm of knowledge.

and trends of hybridization. According to Taipaleenmäki et al. (2017), more agile strategy processes may require analysis and reporting processes, which are more agile. On the other hand, big data and related technologies can drive the transformation of MA systems, processes, and tools as well as the role and responsibilities of management accountants, i.e. the entire MA profession.

In CGMA's (2013) survey of more than 2,000 CFOs and finance professionals, 84% of the respondents indicated that big data and analytics will require a change in how they do their jobs in the near future. As Taipaleenmäki et al. (2017) claim, the data- and technology-driven changes in business contexts and management may pose completely new challenges also to management accounting (MA) supporting decision-making and management control. The big data technologies can open new opportunities in business decision-making, for example enhancing business analysis, monitoring and prediction processes. Undoubtedly, the big data technologies will have some kind of an impact in the accounting profession, in the same manner as the modern business intelligence and data analytics applications and solutions. These changes affect the entire profession of management accounting: the role of management accountants, analysis and reporting processes, information systems, tasks and practices, competence requirements, as well as workload.

Currently, the relationship between management accounting, business intelligence and big data analytics and data science is ambiguous, and it is unclear, how the development between these functionally oriented professions as well as the organizational ownership and responsibilities will turn out in the long term. Some of these professions may face hybridization with each other. Another development scenario could be the fact that the role of business controllers, business intelligence experts or even data scientists could become threatened and marginalized due to the fact, that advanced analysis and reporting technologies and solutions, combined possibly with artificial intelligence (AI) and well-functioning user interface could provide opportunities for business managers and executives to analyze and use the various sets of business data, as a "self-service". In this scenario, the business owners would adopt a hybrid role with a shift towards accounting and could analyze both financial information and big data, even without support by management accountants, business analysts or data scientists (Taipaleenmäki et al., 2017). According to CGMA (2013), however, big data holds opportunities to unlock new career openings for finance and accounting professionals, who are already well placed to help translate big data based analytical insights into commercial impact and value. Regardless of the actual developments in this field, it seems obvious that big data is currently setting immense and potentially revolutionary change pressures on MA and the work of management accountants, who are bound to change their competences, tasks and even to adopt new hybrid roles on the individual level, in an agile manner.

Finally, it can be claimed that the development towards agility can also be observed in the ontological dimension, when *accounting is analyzed as a discipline or as a societal phenomenon. This form of manifestation is associated with change of accounting as a field of business practice or as a field of academic study.* The fact, how fundamental and fast is the change of financial accounting (FA) and management accounting on this level of observation apparently determines, whether the accounting is developing towards a more agile phenomenon. Drawing on the analytical model by Hemmer and Labro (2008) in which the forward-looking perspective of FA leads to forward-looking MA, Taipaleenmäki and Ikäheimo (2013) theorized and built a conceptual framing for analyzing the convergence of MA and FA with the advancements of information technology (IT). They explicated how this convergence is manifested in the technical and technological domain (e.g. intentional integration of information systems and software as well as intentional combination of methods or standards), and how it is reflected as their convergence at the behavioral and organizational domain (e.g. (un)intentional alignment of both functions and processes or work and roles).

Based on their observations and illustrative examples, Taipaleenmäki and Ikäheimo (2013) concluded that the forward-looking FA elements are often intertwined with MA and vice versa, and that the convergence at the technical and technological domain seems to precede the convergence in the behavioral and organizational domain, as IT extends its effects into the sphere of mental efforts by influencing cognition (see Orlikowski, 1991 and 1992) through changes in the mindsets of employees (see Dechow & Mouritsen, 2005) and increased business process agility (Raschke, 2010). According to Taipaleenmäki & Ikäheimo (2013), IT plays an important or even crucial role in this convergence process of MA and FA, and can act as facilitator, catalyst, motivator, or even as the enabler of this phenomenon. Thus, credibly, it can be argued that particularly due to technological advancements, the convergence of MA and FA indicates accounting as a discipline and as a societal phenomenon is in the process of change, which is both fundamental and fast, hence manifesting also the development towards accounting agility.

Elaborating the role of IT in accounting agility

Enterprise agility is defined as the ability of firms to sense environmental change and respond rapidly. Similarly, as IT contributes to enterprise agility by enabling the sense and responding capabilities of firms in two ways, (1) directly and (2) indirectly through the creation of digital options (Overby et al., 2006, see also Bradley & Nolan, 1998; Sambamurthy et al., 2003; Weill & Broadbent, 1998) it can be argued that IT plays important role in enabling also accounting agility. In discussing the role of IT in enterprise agility, Overby et al. (2006) identified the

technologies such as decision support systems, data warehouses and OLAP (online analytical processing tools, which can help firms develop rich knowledge through real-time data monitoring, pattern recognition, and strategic scenario modeling. Sambamurthy et al. (2003), in turn, suggest that IT indirectly supports agility by providing firms with digital options, i.e. a set of IT-enabled capabilities in the form of digitized work processes and knowledge systems. A basic premise of this theory is that IT enhances the reach (breadth) and richness (quality) of a firm's knowledge and its processes. On the other hand advancements in technology, including IT, is quite plausibly seen as one of the changing factors directly causing environmental turbulence. What seems to be missing in the literature is the fact that IT also obviously affects all the other changing factors, hence contributing also indirectly into the turbulence of the operating environment.

In information systems literature, an emerging stream of literature has recognized the difference between traditional systems and vigilant information systems (El Sawy & Majchrzak, 2004; Houghton et al., 2004; Krogh et al., 2005; see also Haeckel & Nolan, 1993). These vigilant information systems (VIS) "integrate and distill information and business intelligence from various sources to detect changes, initiate alerts, assist with diagnosing and analyzing problems, and support communication for quick action" (Houghton et al., 2004, p. 20), i.e. VIS initiates the process, whereas with traditional IS the user initiates a process by, for example, querying an application, causing a passive database to be accessed. With good reason it can be argued that agile accounting systems, especially most advanced management accounting information systems can meet the criteria of VIS through e.g. providing online key performance indicators with data visualized in dashboards, integrated with predictive analytics¹³ capabilities and operational process triggers.

Elaborating further the role of IT advancements and digitalization in accounting agility, similarly as in accounting change, one of the most significant impacts has emerged from the internet-technology (including web-based standardization projects: XML and XBRL, see Debreceeny & Gray, 2001; Deshmukh, 2006) combined with Application Service Providing (ASP) business models, clouding technology for accounting and control software, cloud computing, and mobile reporting capabilities. These only have led to a situation where accounting and control is in principle independent of time and space (Granlund, 2011), enabling remote work as both data and people are available without physical proximity.¹⁴ At the same time, the markets have evidenced advancement in the systems integration with both En-

¹³ Predictive analytics is the branch of data mining dealing with forecasting probabilities, typically applying sophisticated analysis techniques to enterprise data in order to optimize resource allocation and make decisions based on customer behavior (CGMA, 2013).

¹⁴ Faster internal financial reporting schedules in practice have also been enabled with other corporate communication technologies, such as intranet, internal instant messaging services, video conferencing and even internal corporate social media.

terprise Resource Planning Systems (ERP) and enhanced middleware systems enabling companies to automate business processes, by using adapters, which are tailored to communicate with different software systems used within an enterprise. Furthermore, the improvements in the data processing and computing powers have been fast-paced, and novel approaches supporting agility, such as in-memory processing capabilities for big data, have emerged recently (Taipaleenmäki et al., 2017). Hence, undoubtedly, these changes also in the field of accounting has been revolutionary during the past decades. It has also been argued, that information systems and digitalization in general can act as a facilitator, catalyst, motivator or even the enabler for the MA change or even for the convergence development of MA and FA (Taipaleenmäki & Ikäheimo, 2013). However, it cannot be forgotten that IT may also prevent or hinder¹⁵ enterprise agility, e.g. due to fixed and inflexible information systems such as ERPs, which can be hard to abandon (Overby et al., 2006). Thus, this may apply as well in the development towards accounting agility.

Figure 2 depicts the role of IT in the path towards agile accounting. Information technology undoubtedly causes the turbulence in the business environment both directly and indirectly affecting most, if not all, the other changing factors, which drive the need for enterprise agility. By creating the digital options, IT is one of the key enablers of enterprise agility. With focus in accounting, it can be claimed that IT contributes to agility-based requirements for accounting and to MA change in general, but at the same time enables the accounting agility directly or indirectly through the digital options.

¹⁵ Granlund (2001) analyzed, how human, institutional, and economic factors have become intertwined in MA systems change projects, causing inertia, which results in stability rather than change (see also Burns and Scapens, 2000; Busco et al., 2007; Granlund, 1998; Lukka, 2007). Kasurinen (2002) identified various barriers to management accounting change and categorized those into confusers, frustrators and delayers (cf. positive drivers, i.e. motivators, facilitators, catalysts covered in the MA change literature, e.g. Innes and Mitchell, 1990; Cobb et al., 1995). Even though IT may act in all of these roles in the path towards accounting agility, it is unquestionable that the dominating roles contribute positively to the enterprise and accounting agility, due to the reasons discussed above.

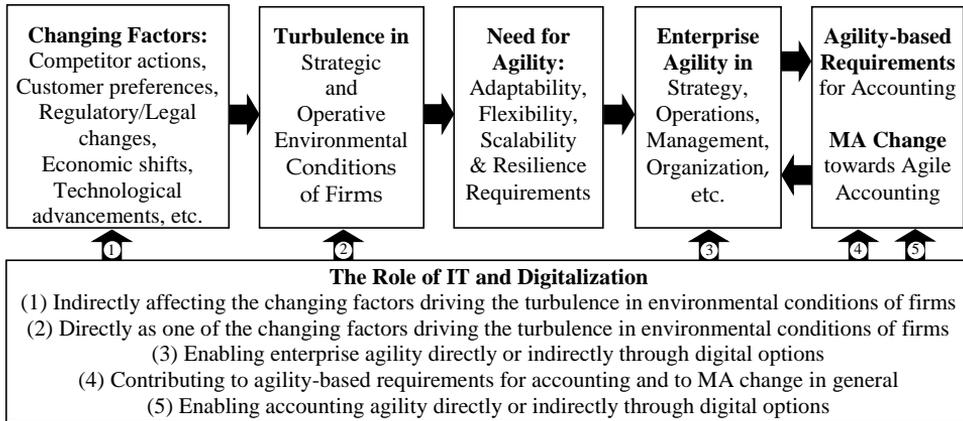


Figure 2 The path towards agile accounting and the role of IT and Digitalization

Defining agile management accounting

More generally, the concept of agility itself emerged initially in the flexible manufacturing literature (Kidd, 1995). Agility can be seen to build upon other concepts in management theory that pertain to firm success in changing environments, including for example (1) dynamic capabilities, i.e. a firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece et al., 1997; see also Eisenhardt & Martin, 2000 and Teece, 2000), (2) absorptive capacity, i.e. a set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge to produce dynamic organizational capability (Zahra & George, 2003), and (3) strategic flexibility, i.e. a firm's ability to manage economic and political risk by responding in a proactive or reactive manner to market threats and opportunities (Grewal & Tansuhaj, 2001; see also Ansoff, 1980; Hitt et al., 1998).¹⁶ It has been claimed that the ambiguous concept of strategic flexibility has bloated into a constellation of concepts, such as adaptability, agility, resilience, robustness, versatility, and absorption. Several of these concepts emerged in the business practice without formal theoretical conceptualization (Bahrami & Evans; 2005; see also Pavlou & El Sawy, 2010).

¹⁶ Recently also the software development processes have typically transformed towards agility. Agile software development (see e.g. Cockburn, 2001) is an umbrella term, which describes a set of methods, practices, and principles for software development under which requirements and solutions evolve through the collaborative effort of self-organizing cross-functional teams. It advocates adaptive planning, evolutionary development, early delivery, and continuous improvement, and it encourages rapid and flexible response to change. Furthermore, emergent methods and approaches, such as 'minimum viable product' (MVP) and 'design thinking' applied in new product development processes, have become quite popular lately.

Information systems (IS) researchers have devoted attention in studying how IT can facilitate reconfiguration by enhancing agility and dynamic capabilities (Desouza, 2007; Houghton, 2004; Pavlou & El Sawy, 2006). Building on the concept of dynamic capabilities, Pavlou & El Sawy (2010) introduced the concept of improvisational capabilities as an alternative means for reconfiguration in turbulence, defined as the ability to spontaneously reconfigure existing resources to build new operational capabilities to address urgent, unpredictable, and novel environmental situations. In contrast to dynamic capabilities, relying on formal planning for a given situation, and suitable for environments with predictable patterns of change (Winter, 2003), improvisational capabilities are best suited when the environment becomes highly turbulent, past procedures offer little or no guidance, and “planned spontaneity” in identifying novel configurations is preferred (Pavlou & El Sawy, 2010). Improvisational capability is not a random ad hoc problem solving, but collective, repeatable or patterned, and purposeful set of actions (Winter, 2003). This can also be reflected to accounting agility, because improvisation takes place when there is not sufficiently time for formal planning or it is too costly to engage in formal planning, when existing plans do not apply to novel conditions (Crossan, 1998; Cunha et al., 1998; Weick, 1998), and when the time gap between planning and execution converges (Moorman & Miner, 1998) or when there is a time pressure to solve problems or address opportunities rapidly (Miner et al., 2001). Improvisation also occurs because of an intentional decision to abandon formal planning, in other words as a deliberate strategy to take advantage of spontaneity and to avoid lengthy and costly planning processes (Pavlou & El Sawy, 2010). In the domain of management accounting, for example the non-budgeting trend can be seen as a manifestation of improvisational capability with intentions to reconfigure control structures towards agility.

As noted earlier in this paper, agility is frequently seen as a concept that extends adaptability and flexibility to include speed and scalability. Thus, similarly as with agile enterprise, it can be expected that all the dimensions and elements of agile accounting are flexible, adaptable, scalable, and nimble, and can be changed quickly and gracefully alongside with the turbulence in environmental conditions of the firm, caused by both external and internal changing factors, which are driving the development towards agility. Flexibility in general refers to readiness and willingness to change or compromise, and to the ability to be easily modified, or even susceptibility of modification or adaptation. In business, flexibility is typically seen as flexible work operations in terms of time and space, i.e. schedules and location, to increase motivation, concentration and productivity.

Adaptability, in turn, typically refers to the quality of being able to adjust oneself readily to new or different conditions, as well as to the capacity to be modified for a new use or purpose. Hence, adaptability as one of the dimensions of accounting agility encompasses both individual and organizational perspectives, and

adaptability of both people and organization or systems can be improved with practices or processes. The distinctive characteristic typically associated with systems and software is scalability, which includes the capacity to be changed in size or scale as well as the ability of a computing process to be used or produced in a range of capabilities. For example, management accounting systems can be scaled up and down according to the needs based on the changing business volumes or users. Drawing on both literature as well as anecdotal evidence and reflections from the business practice, it can be argued that the resilience of staff, i.e. the capacity of the employees to recover swiftly from the continuous and constant changes, determines the resilience of the organization, and hence it can be claimed further that resilience is an essential attribute of both enterprise and accounting agility. Resilience of managers and all employees is becoming increasingly important because of the turbulent operating environment, not least due to new technologies and information systems, and due to the internal restructuring of organizations.

Similarly as with enterprise agility, in this paper, the accounting agility is defined as a multifaceted concept with various dimensions, combining flexibility, adaptability, and scalability, as well as resilience in all elements and on all dimensions and levels of accounting, encompassing accounting as a part of control structure and MCS package on corporate level, as (set of) tools, techniques and methods on corporate or functional level, as a profession and as a discipline or a societal phenomenon. From the practical point of view, the elements of agile accounting can be reshaped and changed quickly and gracefully alongside with turbulence caused by both external and internal changing factors. Agile management accounting may even be determined by improvisational capability and these individual, behavioral, organizational and technical dimensions, which can be also spontaneously reconfigured, to address urgent, unpredictable, include the set of practices, i.e. techniques and methods, systems and software, process and organization, roles and responsibilities. Agile management accounting systems can serve an organization's sensing and responding capabilities and may include vigilant information systems, which integrate and distill information from various sources to detect changes, initiate alerts, assist with diagnosing and analyzing problems, and support communication for quick action.

The concept of agile accounting, associated with certain attributes describing how accounting is changing, cannot be discussed without reflecting the accounting agility with 'drift' model of organizational change. Quattrone and Hopper (2001) introduced the notion of 'drift' to problematize constructions of accounting change and its linear characterization, with segmented passages from one unique location in space and time to another. They proposed that whilst change is not devoid of purposeful action, it is not an orderly process with defined outcomes. Drift as a concept was introduced to represent accounting change as incomplete attempts at organizing (Quattrone & Hopper, 2001). Andon et al. (2007), on the other hand,

introduced the metaphor of ‘relational drifting’ to describe the diverse and shifting connections that inform and condition the chronically unfolding nature of change, thus highlighting the situated and experimental means through which accounting inscriptions are fabricated. It can be argued that the ‘drift model’ within an organization have very much in common with accounting agility, in challenging the linear predictability of the change and recognizing the contingent factors.¹⁷

Finally, it is worth discussing briefly, what are the organizational settings, in which enterprise agility and accounting agility are most likely to be found in. One of these is undoubtedly ‘organized anarchy’ (Cohen et al., 1972; March & Olsen; 1976; Cooper et al.; 1981), characterized by certain fundamentals and features, such as unknown, changing, contested and/or ambiguous goals, unlinear logic of organizing processes, dynamic environment and dynamic interactive management process. Organized anarchies have many similarities with ‘adhocracies’ (Mintzberg, 1979), which are organically structured and have a complex and dynamic operating environment. In addition, so called ‘fluid’ organizations, i.e. those where globalization, IT and digitization have altered the nature of organizational structuring and flows and actions may precede strategies (Bhimani & Bromwich, 2010), could represent another organizational setting, where environment is characterized by turbulence and the emergent pressures have thus resulted in an organizational platform, which is at least partially a response to the emergent pressures towards enterprise agility. The above-discussed new economy firms could be seen as an example of these kind of organizational settings, where agility may flourish or even be a requirement for both managerial and accounting operations and structures.

Summary and conclusions

The purpose of this commentary was to initiate discussion on the potential, which lies in capturing the transformation of accounting, management accounting in particular, to-wards a more agile phenomenon. Thus, this research endeavour can be considered as only a starting point for further research. By conceptualizing agile accounting in relation to enterprise agility and accounting change and by shedding

¹⁷ In describing the ‘drift’, Quattrone and Hopper (2001, 426-427) captured also largely the essence of agility: “When things are drifting (say castaways in a boat in the ocean or friends lost during an excursion in a wood), they may have no devices such as maps or a clock to give them a conception of time or space. They cannot accurately define their location or the time though they are likely to continually try to do so. This does not mean that they will not act purposefully—they may try to create a shared idea of the ‘right’ direction. Nor are they doomed to perish under the waves or in the perils of the wood. They may reach a safe beach or an (un)known village and get help. If they are unlucky, they may return to where they started. But in both instances the purposeful action involves serendipity and chance, i.e. drifting.”

light on digitalization, as well as contemporary technological advancements, combined with the contemporary paradigmatic trend of business agility in this respect, it is argued in this paper that these factors and drivers are reshaping the nature of management accounting. In this research note, a two-way relationship was identified between enterprise agility and accounting agility. On one hand, management accounting involved in planning, decision-making, and control supports corporate processes aiming at sensing environmental change and responding to the change, hence playing a crucial role in enterprise agility. On the other hand, the trend towards agility in business strategies and operations sets new agility-based requirements for management accounting, which can act as a driver for MA change. Drawing on cross-disciplinary academic literature combined with reflections from the recent developments in the practice, the drivers and the manifestations of accounting agility was discussed with illustrative examples representing elements from various levels and dimensions of management accounting, in particular, resulting also in a multifaceted definition of agile accounting with distinctive attributes, which are summarized and outlined in the Table 1.

Table 1 The dimensions, levels, elements and attributes of agile accounting

The dimensions of agile MA	The levels & elements of agile MA manifestations	The attributes associated with agile MA
Technical dimension	Corporate level: A part of control structure	Adaptability
Organizational dimension	Functional level: A set of tools, techniques,	Flexibility
Behavioral dimension	methods and software	Resilience
Individual dimension	Profession level: Roles, duties, responsibilities,	Scalability
Ontological dimension	and tasks	Vigilance
	Discipline / Societal level: A field of business practice or	Improvisational capability
	as a field of academic study	

Based on the above discussion, a plethora of questions can be raised for further scrutiny. Some potential avenues for future research include ones, such as:

- As accounting seems to be changing towards agility in various dimensions and on multiple levels, is the change taking place in both MA and FA and is the change currently faster and more drastic in the elements of the technical and organizational dimensions (methods, techniques, practices, etc.) or in the elements of the organizational, behavioral and individual dimensions of accounting (roles, etc.)?

- As enterprises operating in turbulent environments with unpredictable patterns of rapid changes and events must reconfigure with alternative capabilities that require less planning, what is the two-way relationship between enterprise agility and accounting agility actually like, and which are the most significant impacts and implications in this sense and are they positive or negative in nature and what are the causalities like? Does the agility of management accounting extend to both planning and control processes and practices?
- What is the role of internal dynamics and corporate changes (mergers and acquisitions, changes in ownership and/or legal entity structure, lifecycle changes, etc.) in driving both enterprise agility and accounting agility, as in the existing literature the focus seems to be limited to analyzing agility in relation to the turbulence in the external environmental conditions only?
- Is the development towards accounting agility evolutionary or revolutionary (Birkett & Poullaos, 2001; Kaplan, 1984; Perren & Grant, 2000; Taipaleenmäki, 2017) in the different dimensions of accounting?
- What is the relationship between accounting agility and ‘loosely coupled’ accounting controls, i.e. those implemented with rational and simultaneous indeterminate elements (Lukka, 2007)?
- What is the actual relationship between accounting agility and certain organizational platforms and settings, such as ‘fluid’ organizations (Bhimani & Bromwich, 2010), ‘organized anarchies’ (Cohen et al., 1972; March & Olsen; 1976; Cooper et al.; 1981), ‘adhocracies’ (Mintzberg, 1979), or the ‘drift’ model of organizational change Quattrone and Hopper (2001)?

Now it is possible to focus on the most significant attributes and elements of agile accounting in the various dimensions of accounting, also with empirical research methods, to gain both more in-depth view on the development, as well as statistically tested research evidence on agility within the field of accounting, from the perspectives and dimensions that became only briefly touched upon in this research note.

In this research note, a special attention in the path towards accounting agility was paid to IT and digitalization. Robotics, automation, data science technologies and machine learning are just some of the contemporary examples, which are rapidly or even disruptively transforming the operating environment and hence having an impact on strategy and operations in all industries, affecting already also in the domain of accounting. Whereas futures studies are already concerned about artificial intelligence and even technological singularity, i.e. the hypothesis that the invention of artificial superintelligence (AI) will abruptly trigger runaway technological growth, resulting in unfathomable changes to human civilization – in other words, how for example a computer running software-based artificial general intelligence would enter a ‘runaway reaction’ of self-improvement cycles, with each

new and more intelligent generation appearing more and more rapidly, causing an intelligence explosion and resulting in a powerful superintelligence that would, qualitatively, far surpass all human intelligence. In this scenario, AI would accelerate both the technological and societal changes to the speed, which leaves humankind with no possibility to understand or meaningfully predict future. Acknowledging that the technological advancements in the field of AI are still far from these most dystopic future scenarios, this research note shows that the IT-driven the accounting change can also take more abstract and multifaceted forms than those typically studied. The conclusion of this research note is parallel to Granlund (2011, p. 16), who argued that the interface of management control and modern IT is still an underdeveloped area both empirically and theoretically:

“Indeed, researchers should increasingly follow the speedy development of IT and investigate the potential and realized changes it may cause for accounting and control practice. This is increasingly important, as the accounting and management profession must deal with a host of complex issues that did not even exist in the past. Developments in IT will most probably affect many aspects of business and accounting practice in the future and thereby offer new and exciting research opportunities.”

References

- Alder, P. S. – Chen, C. X. (2011) Combining creativity and control: Understanding individual motivation in large-scale collaborative creativity. *Accounting, Organizations and Society*, Vol. 36 (2), 63–85.
- Andon, P. – Baxter, J. – Chua, W. F. (2007) Accounting change as relational drifting: A field study of experiments with performance measurement. *Management Accounting Research*, Vol. 18 (2), 273–308.
- Ansoff, H. I. (1980) Strategic issue management. *Strategic Management Journal*, Vol. 2 (1), 132–148.
- Bahrami, H. – Evans, S. (2005) *Super-Flexibility for Knowledge Enterprises*. New York: Springer Books.
- Baskerville, R. L. – Mathiassen, L. – Pries-Heje, J. – DeGross, J. I. (eds.) (2005) *Business Agility and Information Technology Diffusion. IFIP TC8 WG 8.6 International Working Conference May 8-11, 2005, Atlanta, Georgia, USA*. New York: Springer Science+Business Media.
- Bayer, M. – Laney, D. (2012) The Importance of 'Big Data': A Definition. *Gartner*. <<https://www.gartner.com/doc/2057415/importance-big-data-definition>>, retrieved 21.6.2012.
- Birkett, W. P. – Poullaos, C. (2001) From accounting to management: A global perspective; In: *A profession transforming: from accounting to management*, ed. by W. P. Birkett – C. Poullaos, 1–20. New York: the International Federation of Accountants, IFAC.
- Bennet, N. – Lemoine, J. (2014) What VUCA Really Means for You. *Harvard Business Review*, Vol. 92 (1–2), 27.
- Bradley, S. P. – Nolan, R. L. (1998) *Sense & Respond: Capturing Value in the Network Era*. Boston, MA: Harvard Business School Press.
- Bhimani, A. – Bromwich, M. (2010) *Management accounting – retrospect and prospect*. London: Elsevier / CIMA Publishing.
- Brennan, M. J. – Trigeorgis, L. (eds.) (2000) *Project Flexibility, Agency and Competition. New Developments in the Theory and Application of Real Options*. New York: Oxford University Press.
- Briers, M. – Chua, W. F. (2001) The role of actor-networks and boundary objects in management accounting change: a field study of an implementation of activity-based costing. *Accounting, Organizations and Society*, Vol. 26 (3), 237–269.

- Burns, J. – Baldvinsdottir, G. (2005) An Institutional New Roles – The Interplay of Contradictions. *European Accounting Review*, Vol. 14 (4), 725–757.
- Burns, J. – Scapens, R. W. (2000) Conceptualizing management accounting change: an institutional framework. *Management Accounting Research*, Vol. 11 (1), 3–25.
- Burns, J. – Vaivio, J. (2001) Management accounting change. *Management Accounting Research*, Vol. 12 (4), 389–402.
- Busco, C. – Quattrone, P. – Riccaboni, A. (2007) Management accounting. Issues in interpreting its nature and change. *Management Accounting Research*, Vol. 18 (2), 125–149.
- CGMA (2013) *From insight to impact. Unlocking the opportunities in big data*. Chartered Institute of Management Accountants.
- Chapman, C. S. (1997) Reflections of a contingent view of accounting. *Accounting, Organizations and Society*. Vol. 22 (2), 189–205.
- Chapman, C. S. – Hopwood, A. G. – Shields, M. A. (eds.) (2007) *Handbook of Management Accounting Research Volume 1*. Oxford: Elsevier.
- Chenhall, R. H. (2003) Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, Vol. 28 (2–3), 127–168.
- Choudhury, N. (1988) The seeking of accounting where it is not: towards a theory of non-accounting in organizational settings. *Accounting, Organizations and Society*, Vol. 13 (6), 549–557.
- CIMA (1996) *Official Terminology*. London: CIMA.
- Cobb, I. – Helliard, C. – Innes, J. (1995) Management accounting change in a bank. *Management Accounting Research*, Vol. 6 (2), 155–175.
- Cockburn, A. (2001) *Agile Software Development*. Reading, MA: Addison-Wesley.
- Cohen, M. D. – March, J. G. – Olsen, J. P. (1972) A garbage can model of organizational choice. *Administrative Science Quarterly*, Vol. 17 (1), 1–25.
- Cooper, D. J. – Hayes, D. – Wolf, F. (1981) Accounting in organized anarchies: understanding and designing accounting systems in ambiguous situations. *Accounting, Organizations and Society*, Vol. 6 (3), 175–191.
- Crossan, M. (1998) Improvisation in action. *Organization Science*, Vol. 9 (5), 593–599.

- Cunha, M. P. – Cunha, J. V. – Kamoche, K. (1999) Organizational improvisation: What, when, how, and why. *International Journal of Management Reviews*, Vol. 1 (3), 299–341.
- Dávila, T. (2000) An empirical study on the drivers of management control systems' design in new product development. *Accounting, Organizations and Society*, Vol. 25 (4–5), 383–409.
- Debreceeny, R. – Gray, G. L. (2001) The production and use of semantically rich accounting reports on the Internet: XML and XBRL. *International Journal of Accounting Information Systems*, Vol. 2 (1), 47–74.
- Dechow, N. – Granlund, M. – Mouritsen, J. (2007a) Management Control of the Complex Organization: Relationships between Management Accounting and Information Technology. In: *Handbook of Management Accounting Research, Vol. 2*, ed. by C. Chapman – A.G. Hopwood – M.D. Shields, 625–640. Amsterdam: Elsevier.
- Dechow, N. – Granlund, M. – Mouritsen, J. (2007b) Interactions between information systems and management control. In: *Issues in management accounting, 3rd Edition*, ed. by D. Northcott – T. Hopper – R.W. Scapens, 45–64. Essex: Pearson.
- Dechow, N. – Mouritsen, J. (2005) Enterprise resource planning systems, management control and the quest for integration. *Accounting, Organizations and Society*, Vol. 30 (7–8), 691–733.
- Deshmukh, A. (2006) *Digital accounting: the effects of the internet and ERP on accounting*. Idea Group Publishing.
- Desouza, K. (2007) *Agile Information Systems: Conceptualization, Construction, and Management*. Burlington, MA: Elsevier.
- Dove, R. (2001) *Response Ability: The Language, Structure, and Culture of the Agile Enterprise*. New York: John Wiley & Sons Inc.
- Eisenhardt, K. – Martin, J. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, Vol. 21 (10–11), 1105–1121.
- Ekholm, B.-G. – Wallin, J. (2001) Is the annual budget really dead? *European Accounting Review*, Vol. 9 (4), 519–539.
- El Sawy, O. A. – Majchrzak, A. (2004) Critical issues in research on real-time knowledge management in enterprises. *Journal of Knowledge Management*, Vol. 8 (4), 21–37.
- Emsley, D. (2001) Redesigning variance analysis for problem solving. *Management Accounting Research*, Vol. 12 (1), 21–40.

- Gartner (2016a) *Gartner's Top 10 Strategic Technology Trends for 2017. Artificial intelligence, machine learning, and smart things promise an intelligent future.*
<<http://www.gartner.com/smarterwithgartner/gartners-top-10-technology-trends-2017/>>, retrieved 30.3.2017.
- Gartner (2016b) *Gartner predicts rise of "intelligent digital mesh"*
<<http://www.technologydecisions.com.au/content/it-management/article/gartner-predicts-rise-of-intelligent-digital-mesh--181707091#ixzz4Ztpvrq1v>>, retrieved 30.3.2017.
- Granlund, M. (1998) *The Challenge of Management Accounting Change. A Case Study of the Interplay between Management Accounting, Change and Stability.* Turku: Publications of the Turku School of Economics and Business Administration, Series A-7:1998.
- Granlund, M. (2001) Towards explaining stability in and around management accounting systems. *Management Accounting Research*, Vol. 12 (2), 141–166.
- Granlund, M. (2011) Extending AIS research to management accounting and control issues – A research note. *International Journal of Accounting Information Systems*, Vol. 12 (1), 3–19.
- Granlund, M. – Lukka, K. (1998) Towards increasing business orientation: Finnish management accountants in a changing cultural context. Finnish management accountants in their cultural context. *Management Accounting Research*, Vol. 9 (2), 185–211.
- Granlund, M. – Malmi, T. (2002) Moderate impact of ERPS on management accounting: a lag or permanent outcome? *Management Accounting Research*, Vol. 13 (3), 299–321.
- Granlund, M. – Mouritsen, J. (2003) Problematizing the relationship between management control and information technology, introduction to the special section on 'management control and new information technologies'. *European Accounting Review*, Vol. 12 (1), 77–83.
- Granlund, M. – Mouritsen, J. – Vaassen, E. (2013) On the relations between modern information technology, decision making and management control. *International Journal of Accounting Information Systems*, Vol. 14 (4), 275–277.
- Granlund, M. – Taipaleenmäki, J. (2005) Management Control and Controllability in New Economy Firms. *Management Accounting Research*, Vol. 16 (1), 21–57.

- Granlund, M. – Modell, S. (2005) Nordic contributions to the management accounting change literature. In *Accounting in Scandinavia – The Northern Lights*, ed. by S. Jönsson – J. Mouritsen, 159–192. Malmö: Liber and Copenhagen Business School Press.
- Grewal, R. – Tansuhaj, P. (2001) Building organizational capabilities for managing economic crisis: the role of market orientation and strategic flexibility. *Journal of Marketing*, Vol. 2 (65), 67–80.
- Haeckel, S. H. – Nolan, R. L. (1993) Managing by Wire. *Harvard Business Review*, Vol. 71 (5), 122–132.
- Hansen, S. C. – Otley, D. T. – Van der Stede, W. (2003) Practice developments in budgeting: An overview and research perspective. *Journal of Management Accounting Research*, Vol. 15 (1), 95–116.
- Heer, R. (2012) How Agile Is Your Planning? Find out by measuring the ROI of your planning software *Strategic Finance*, Vol. 93 (10), 45–50.
- Hemmer, T. – Labro, E. (2008) On the Optimal Relation between the Properties of Managerial and Financial Reporting Systems. *Journal of Accounting Research*, Vol. 46 (5), 1209–1240.
- Hitt, M. A. – Keats, B. W. – Demarie, S. M. (1998) Navigating in the new competitive landscape: building strategic flexibility and competitive advantage in the 21st century. *Academy of Management Executive*, Vol. 4 (12), 22–42.
- Hope, J. – Fraser, R. (1997) Beyond budgeting. Breaking through the barrier to "the third wave". *Management Accounting (UK)*, Vol. 75 (11), 20–23.
- Hope, J. – Fraser, R. (2003) Who Needs Budgets? *Harvard Business Review*, Vol. 81 (2), 108–116.
- Hopwood, A. (1987) The archaeology of accounting systems. *Accounting, Organizations and Society*, Vol. 14 (3), 207–234.
- Horney, N. – Pasmore, B. – O'Shea, T. (2010) Leadership Agility: A Business Imperative for a VUCA World. *Human resource planning*, Vol. 33 (4), 34–42.
- Houghton, R. – El Sawy, O. A. – Gray, P. – Donegan, C. – Joshi, A. (2004) Vigilant Information Systems for Managing Enterprises in Dynamic Supply Chains: Real-Time Dashboards at Western Digital. *MIS Quarterly Executive*, Vol. 3 (1), 19–35.
- Hugos, M. H. (2009) *Business Agility: Sustainable Prosperity in a Relentlessly Competitive World*. Hoboken, NJ: John Wiley & Sons, Inc.

- Hunton, J. (2002) Blending information and communication technology with accounting research. *Accounting Horizons*, Vol. 16 (1), 55–67.
- Hyvönen, T. – Järvinen, J. – Pellinen, J. – Rahko, T. (2009) Institutional Logics, ICT and Stability of Management Accounting. *European Accounting Review*, Vol. 18 (2), 241–275.
- Ikäheimo, S. & Taipaleenmäki, J. (2010) The Divergence and Convergence of Financial Accounting and Management Accounting – Historical and International Perspectives from the U.S., Germany, and Finland. *Die Betriebswirtschaft, Special Issue on Integration of Financial and Managerial Accounting*, Vol. 70 (4), 349–368.
- Innes, J. – Mitchell, F. (1990) The process of change in management accounting: some field study evidence. *Management Accounting Research*, Vol. 1 (1), 3–19.
- Jørgensen, B. – Messner, M. (2009) Management Control in New Product Development: The Dynamics of Managing Flexibility and Efficiency. *Journal of Management Accounting Research*, Vol. 21 (1), 99–124.
- Järvenpää, M. (2007) Making Business Partners: A Case Study on how Management Accounting Culture was Changed. *European Accounting Review*, Vol. 16 (1), 99–142.
- Kaplan, R. S. (1984) The Evolution of Management Accounting. *The Accounting Review*, Vol. 59 (3), 390–418.
- Kasurinen, T. (2002) Exploring management accounting change: the case of balanced scorecard implementation. *Management Accounting Research*, Vol. 13 (3), 323–343.
- Kidd, P. T. (1995) *Agile Manufacturing Forging New Frontiers*. London: Addison-Wesley.
- Krogh, E. – El Sawy, O. A. – Gray, P. (2005) Managing Online in Perpetual Perfect Storms: Insights from Indymac Bank. *MIS Quarterly Executive*, Vol. 4 (4), 425–442.
- Kurunmäki, L. (2004). A hybrid profession – The acquisition of management accounting expertise by medical professionals. *Accounting, Organizations and Society*, Vol. 29 (3–4), 327–347.
- Kurunmäki, L. – Miller, P. (2011) Regulatory Hybrids: Partnerships, Budgeting and Modernising Government?. *Management Accounting Research*, Vol. 22 (4), 220–241.

- Lukka, K. (2007) Management accounting change and stability: Loosely coupled rules and routines in action. *Management Accounting Research*, Vol. 18 (1), 76–101.
- Malmi, T. – Brown, D. A. (2008) Management control systems as a package – Opportunities, challenges and research directions. *Management Accounting Research*, Vol. 19 (4), 287–300.
- March, J. G. – Olsen, J. P. (1976) *Ambiguity and Choice in Organizations*. Bergen: Universitetsforlaget.
- Miller, P. – Kurunmäki, L. – O’Leary, T. (2008) Accounting, hybrids and management of risk. *Accounting, Organizations and Society*, Vol. 33 (7–8), 942–967.
- Miller, P. – Kurunmäki, L. – O’Leary, T. (2010) Calculating Hybrids. In: *Calculating the Social: Standards and the Re-configuration of Governing*, ed. by V. Higgins – S. Kitto – W. Larner, 21–27. UK: Palgrave Macmillan.
- Miner, A. – Bassoff, P. – Moorman, C. (2001) Organizational improvisation and learning: A field study. *Administrative Science Quarterly*, Vol. 46 (2), 304–337.
- Mintzberg, H. (1979) *The Structuring of Organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Moore, K. (2001) The e-volving organization: a net-speed culture is emerging from within. *Ivey Business Journal*, Vol. 65 (2), 25–28.
- Moore, K. – Yuen, S. (2001) Management accounting systems and organizational configuration: a life-cycle perspective. *Accounting, Organizations and Society*, Vol. 26 (4–5), 351–389.
- Moorman, C. – Miner, A. S. (1998) Organizational improvisation and organization memory. *Academy of Management Review*, Vol. 23 (4), 698–723.
- Munro, R. (1995) Managing the ambiguity: an archaeology of the social in the absence of management accounting. *Critical Perspectives on Accounting*, Vol. 6 (5), 433–482.
- Newman, M. – Westrup, C. (2005) Making ERPs work: accountants and the introduction of ERP systems. *European Journal of Information Systems*, Vol. 14 (3), 258–272.
- Orlikowski, W. (1991) Integrated information environment or matrix of control? The contradictory implications of information technology. *Accounting, Management & Information Technology*, Vol. 1 (1), 9–42.

- Orlikowski, W. (1992) The duality of technology: rethinking the concept of technology in organizations. *Organization Science*, Vol. 3 (3), 398–427.
- Østengren, K. – Stensaker, I. (2011) Management Control without Budgets: A Field Study of ‘Beyond Budgeting’ in Practice. *European Accounting Review*, Vol. 20 (1), 149–181.
- Overby, E. – Bharadwaj, A. – Sambamurthy, V. (2006) Enterprise agility and the enabling role of information technology. *European Journal of Information Systems*, Vol. 15 (2), 120–131.
- Pavlou, P. A. – El Sawy, O. A. (2006) From IT competence to competitive advantage in turbulent environments: The case of new product development. *Information Systems Research*, Vol. 17 (3), 198–227.
- Pavlou, P. A. – El Sawy, O. A. (2010) The “Third Hand”: IT-Enabled Competitive Advantage in Turbulence Through Improvisational Capabilities. *Information Systems Research*, Vol. 21 (3), 443–471.
- Perren, L. – Grant, P. (2000) The evolution of management accounting routines in small businesses: a social construction perspective. *Management Accounting Research*, Vol. 11 (4), 391–411.
- Pierce, B. (2002) Management accounting without accountants? *The FMAC Articles of Merit*, 41–45. New York: the International Federation of Accountants, IFAC.
- Pierce, B. – O’Dea, T. (2003) Management accounting information and the needs of managers: Perceptions of managers and accountants compared. *The British Accounting Review*, Vol. 35 (3), 257–290.
- Quattrone, P. – Hopper, T. (2001) What does organizational change mean? Speculations on a taken for granted category. *Management Accounting Research*, Vol. 12 (4), 403–435.
- Raschke, R. L. (2010) Process-based view of agility: The value contribution of IT and the effects of process outcomes. *International Journal of Accounting Information Systems*, Vol. 11 (4), 297–313.
- Rom, A. – Rohde, C. (2007) Management accounting and integrated information systems: A literature review. *International Journal of Accounting Information Systems*, Vol. 8 (1), 40–68.
- Sambamurthy, V. – Bharadwaj, A. – Grover, V. (2003) Shaping agility through digital options: reconceptualizing the role of information technology in contemporary firms. *MIS Quarterly* Vol. 27 (2), 237–263.

- Scapens, R.W. – Jazayeri, M. (2003) ERP systems and management accounting change: opportunities or impacts? A research note. *European Accounting Review*, Vol. 12 (1), 201–233.
- Scapens, R. W. – Turley, S. – Burns, J. (1996) *External Reporting and Management Decisions*. London: CIMA.
- Sulaiman, S. – Mitchell, F. (2005) Utilising a typology of management accounting change: an empirical analysis. *Management Accounting Research*, Vol. 16 (4), 422–437.
- Taipaleenmäki, J. (2014) Absence and Variant Modes of Presence of Management Accounting in New Product Development – Theoretical Refinement and Some Empirical Evidence. *European Accounting Review*, Vol. 23 (2), 291–334.
- Taipaleenmäki, J. (2017) The Multifaceted (R)evolution of the Context and Practice of Management Accounting. Three Perspectives. Working Paper of Doctoral Dissertation.
- Taipaleenmäki, J. – Granlund, M. – Järvenpää, M. (2017) *Management Accounting in the Era of Big Data. Scenarios of Transformation*. Working Paper.
- Taipaleenmäki, J. – Ikäheimo, S. (2013) On the Convergence of Management Accounting and Financial Accounting – the Role of Information Technology in Accounting Change. *International Journal of Accounting in Information Systems*, Vol. 14 (4), 321–348.
- Tan, F. T. C. – Tan, B. – Wang, W. – Sedera, T. (2017) IT-enabled operational agility: An interdependencies perspective. *Information & Management*, Vol. 54 (3), 292–303.
- Teece, D. (2007) Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, Vol. 28 (13), 1319–1350.
- Teece, D. – Pisano, G. – Shuen, A. (1997) Dynamic capabilities and strategic management. *Strategic Management Journal*, Vol. 7 (18), 509–533.
- Vaassen, E. H. J. – Hunton, J. E. (2009) An eclectic approach to accounting information systems. *International Journal of Accounting Information Systems*, Vol. 10 (3), 173–176.
- Wallander, J. (1999) Budgeting – an unnecessary evil. *Scandinavian Management Journal*, Vol. 15 (4), 405–421.
- Weick, K. E. (1998) Introductory essay: Improvisation as a mindset for organizational analysis. *Organization Science*, Vol. 9 (5), 543–555.

- Weill, P. – Broadbent, M. (1998) *Leveraging the New Infrastructure: How Market Leaders Capitalize on Information Technology*. Boston, MA: Harvard Business School Press.
- Winter, S. (2003) Understanding dynamic capabilities. *Strategic Management Journal*, Vol. 24 (10), 991–995.
- Zahra, S. A. – George, G. (2003) Absorptive capacity: a review, reconceptualization and extension. *Academy of Management Review*, Vol. 2 (27), 185–203.
- Zuboff, S. (1988) *In the Age of the Smart Machine: The Future of Work and Power*. New York, NY: Basic Books.

Management Control System and Flexibility in Metal Engineering Context – A Case Study

Henri Teittinen, Turku School of Economics, University of Turku

Marko Järvenpää, School of Business and Economics, University of Jyväskylä

Jukka Pellinen, School of Business and Economics, University of Jyväskylä

Abstract

Flexibility is a strategic issue when organizations try to react to fast moving situations. This paper examines what features in management accounting and control system may facilitate or limit organizational flexibility. We have conducted a case study in one subcontractor in metal engineering industry. We found several elements of flexibility in management control system, part of which may be specific to manufacturing contexts. Our findings also highlight the importance of paying sufficient attention to compromising with the ruling orientations and subsequent objectives between the main functions of a firm.

Keywords: Management Control Systems, Flexibility

Introduction

It is crucial for all organizations to adapt to changing environments as well and fast as possible. In order to increase or even maintain competitiveness, firms have to invest in new technologies, adapt supply according to changing customer demands, seize new possibilities offered by the dynamic of specific industries, and improve their operations faster than the competitors do. Despite of the strategic importance of organizational flexibility, the objectives of economic efficiency set limits and often are contradictory with these demands (Mouritsen, 1999).

Flexibility is a concept which has a strategic nature, but operational outcomes. While there is a widespread recognition of the importance of organizational flexibility, there is only little research that examines the interplay of the organizational flexibility, efficiency and management control systems (Abernethy & Lillis, 1995; Mouritsen, 1999; Ahrens & Chapman, 2004; van Veen-Dirks, 2006). The purpose of this study is to examine what in management accounting and control systems may facilitate or limit organizational flexibility. In order to answer this question,

we conducted a case study in one metal engineering company operating as a sub-contractor for multiple original equipment manufacturers. The case is interesting since there is a high demand for flexibility coming from multiple industrial customers and the context of manufacturing industry defined by multiple rigidities of technology and production capacity.

Our findings are organized according to two supplementary research paradigms. We begin with structuralist analysis paying attention to performance measurement, strategic intentions, information technology and production infrastructure, organizational design and human resource management aspects on management control. Then we move our analysis to human and interfunctional aspects of control.

Literature review

Volberda (1997) argues that flexibility is one way to increase control in high turbulent environment. He emphasizes that the more uncertain the situation, the more an organization will need flexibility as a complement to planning. Further, he suggests that flexibility is an outcome of two dimensions (which need to be in balance): the controllability of the organization and the control capacity of management. Control capacity of management refers to the creation of the organization's control capacity (i.e. rapidity in organizational processes) at operational, structural and strategic dimensions, both externally and internally. The controllability refers to designing the appropriate organizational conditions that require identifying the type of technological, structural or cultural changes necessary to ensure effective utilization of managerial capabilities.

Ahmed et al. (1996) argue that flexibility is a sum of different flexibility elements, which includes technology/machines, people, structures and systems and processes. Flexibility in that sense means that machines have capability to manufacture broad range of products, people are multi skilled and able to move their routines rapidly, organizations are using both formal and informal control mechanisms and management focus is in information, materials, human and physical product flows and how they are interconnected.

Management accounting and control systems have been originally developed to support mass production. In contexts where the needs for organizational flexibility were limited, long range planning, programming of operations and annual budgeting were developed as central means for management control (Simons, 1990; Drucker, 1990; Bowen et al., 1989; Nemetz & Fry, 1988). The contemporary needs for organizational flexibility are however, very different. There is a growing literature in management accounting that problematizes the fit of currently used management control systems with the strategic needs of flexibility (e.g., Ittner and Larker 1997; Miller and O'Leary 1997; Mouritsen 1999).

Normally in management control literature flexibility has been understood by companies to pay attention to customer orientation (Mouritsen 1999, Galbraith 1994, Abernethy & Lillis 1995, Chenhall 2005). Mouritsen (1999) describes that flexibility in organization is related to the information flows from customers to subcontractors (see also Stalk & Hout 1990, Galbraith & Lawler 1993, Galbraith 1994, Jenkins 1997), and to the responsibility for customers and other team members in the organizations (see also Miller & O'Leary 1994, Munro & Hatherley 1993). Both of these perspectives emphasize lateral relations in organizations (see also Miller & O'Leary 1994). In addition Mouritsen (1999) illustrates flexibility in two forms. The first one is paper practice, where flexibility is described as a numbers in accounting sense. Another one is political practice, where flexibility is described as a coordination and communication between the actors. The first one emphasizes that flexibility is expensive and needs to be controlled, where as the latter one emphasizes that flexibility is what customers requires in production. However, Mouritsen (1999) states that it is difficult to define what flexibility actually means, but it is management control system which transforms flexibility in execution.

Van Veen-Dirks (2006) defines flexibility as a way to respond to market changes, particularly by flexible production and flexible production strategy. She has explored flexibility of management control systems, including elements of i) performance criteria (like financial vs. non-financial measures); ii) evaluating process (like emphasis on budgets or actual costs); and iii) reward system (like variability of rewards). The focus has been in the state of flexibility, creating also a measurement for flexibility. The focus is particularly in one business unit's internal perspective. Van Veen-Dirks (2006) calls future studies to explore the management control systems elements of flexibility in more detail and in different contexts.

Abernethy & Lillis (1995) present that flexibility is firm's ability to react to market demands in production by switching production schedules and offer product variations instead of mass production. Abernethy & Lillis see this as a strategic choice by product differentiation instead of long production batches and standardized products. They argue that customer-driven production requires that control systems have to be developed to complex and multifunctional situations. In these situations it is difficult to specify performance standards, as optimal relationships between inputs and outputs for production because tasks are usually not known. In this situation, financial measures of manufacturing performance become less relevant. Thus Abernethy & Lillis (1995) argue that manufacturing flexibility requires cross-functional responsiveness to specific customer-initiated demands, which means that in control systems the focus should be in customer responsiveness (e.g.

cycle times, delivery performance etc.). Abernethy & Lillis also argue that inter-functional and interdepartmental relationships should be in the focus of control systems, but how, is still an unanswered question.

Chapman & Chua (2003) argue that flexibility refers to the personal (organizations members') discretion. In their study personal computers allow personal customization of routines in the use of enterprise resource system. Ahrens (2000) argue that organization can support flexibility by management control system by giving tailored expertise, but not in too technical and detailed way.

Chenhall (2008) and Van der Meer-Kooistra & Scapens (2008) argue that hierarchical control in the organizations is becoming less important and horizontal control is becoming more important. They argue that new horizontally based organization structures require different kind of control than traditional hierarchy based organizations. Van der Meer-Kooistra and Scapens present that flexibility is related to the minimal structures which need to be in balance in lateral relations. They describe lateral relations nature complex by continuous change where flexibility as one element is needed to create balance. Especially they illustrate how flexibility refers to allow sufficient room for operations at lateral relations in changing environments. They also emphasize that when traditional management control literature seeks to solve the contradictions, the real challenge is to understand how managers cope in such complex lateral relations. In this study we will focus on that especially to the horizontal level analysis of organizations.

Summarizing the previous studies in the intersection of management accounting and organizational flexibility, some design elements and basic tensions have been recognized. It is found that minimal controls structures and lateral information flows from customers to suppliers may enable flexibility (Van der Meer-Koistra and Scapens, 2008; Mouritsen, 1999). In light of Volberda's (1997) argument, however, it is difficult to see how minimal control structures may increase controllability of the organization. Centralized financial control, detailed corporate rules and enterprise information technologies, however, may limit flexibility (Mouritsen, 1999; Ahrens, 2000). In addition to these design elements, flexibility is seen as an outcome of personal discretion and interdepartmental negotiation (Chapman and Chua, 2003; Abernethy and Lillis, 1995). According to Volberda (1997) control capacity of management is as decisive as the elements of flexibility. Flexibility here is seen as much an outcome of management decisions on structural elements of the organization as quick operation within that structure without hesitation.

Research method and methodology

The purpose of this study is to enrich our understanding of the facilitating and limiting interlinkages between management accounting and control systems and

organizational flexibility. We have chosen case study methodology to get deep understanding of the practices in one particular firm. Our analysis builds on two different but complementary theoretical approaches in organizational sociology (Hassard, 1991). First, we will concentrate on the role of structural elements of management accounting and control systems in facilitating or hindering organizational flexibility. Second, we will move attention to relations of different organizational actors. We theorize our findings of compromising rationalities needed for building shared visions on flexibility within the organization.

We have used semi-structured interviews for gathering the data. Opportunity to interview all business unit managers enabled us to get different perspectives on flexibility. Managers were asked: what does it mean to maintain and develop flexibility for management controlling purposes in practice. We have made 16 semi-structured interviews (with 13 business unit managers, with 3 business responsible managers) and with CFO we have had plenty meetings (durations between 1,5 to 2,5 hours), and in addition we have had access to discuss with the shop floor people during our visits in the plants. Making interviews required a lot of traveling between different business unit locations. All the interviews are recorded and transcribed. Typically the formal interviews lasted 1,5 hours. In addition we have had several informal discussions and meetings with the business unit managers, and the chief financial officer of the case company. Moreover, we have plenty of internal documents and reports as empirical source and we have met the company management several times during the project.

In order to get deep understanding on the phenomenon we have adopted grounded theory method, where we have based our arguments on findings from the real life practice (Ahrens & Dent 1998, Järvenpää & Pellinen 2005; Ahrens & Chapman 2006; Ahrens et al. 2008; Vaivio 2008). Grounded theory is one form of qualitative research. The purpose is to discover and understand what lies behind the phenomenon. As Strauss & Corbin (1990) state grounded theory is inductively derived from the study of the phenomenon it represents. Grounded theory is an analytical method for data collection and data analysis. Grounded theory is a qualitative research method which uses a systematic set of procedures. The research findings aim to constitute a theoretical formulation of the reality.

In grounded theory the initial research question starts out broadly and becomes narrowed and focused during the research process. Grounded theory is an approach which support to develop existing theory or create new theory in innovative way, by systematically analyzing the data (Strauss & Corbin, 1990) The purpose is to categorize and conceptualize issues by finding the relationships between the findings. Creating theory is based on systematically coding and analysis (Strauss & Corbin 1990, Partanen 2001, Parker & Roffey 1997; Järvenpää & Pellinen 2005). Glaser & Strauss (1967) and Strauss (1987) mention that the theory constructing

process is an iterative process, in which the analysis will be developed during the process.

Central idea in grounded theory is the coding process. Coding process represents the operation where data will be conceptualized, and formulated in new way. Analysis in grounded theory is composed of three types of coding: a) open coding, b) axial coding, and c) selective coding. Strauss & Corbin (1990). The purpose of coding is to form meanings and examine the relations between these meanings for creating the categories for the findings. Under the coding process it is also essential to question, criticize and develop new categories and conceptualize the data. (see for example Strauss 1987 and Parker & Roffey 1997).

According to Strauss & Corbin (1990), 'Labeling the phenomena' is the first step to conceptualize the data. In that step data will be broken down to observations, sentences, events or so on and those will be given a name, something that stands for or represents a phenomenon. The next step in coding is called 'discovering the categories'. After labeling phase there may be hundreds of labels. Once the data has been labeled, the labels need to be grouped. The process of grouping concepts that seem to pertain to the same group is called categorizing (p. 65). To each category is given a name which describes the phenomena represented in the group. Categories have to analytically developed by the researcher. It is important to recognize the properties and dimensions of categories because those form the basis for making relationships between other categories and subcategories. Properties and dimensions form therefore the basis the analysis.

The last phase is 'theorizing' where subcategories are linked to the main category by relationships, which denotes causal conditions, phenomenon, context, intervening conditions, actions/interactional strategies, and consequences. Phenomenon is the central idea: what is this data referring, what is the action about? Causal conditions refers to events that develop the phenomenon. (Strauss & Corbin, 1990)

Intervening conditions are the broad and general conditions upon action / interactional strategies. These include time, space, culture, economic status, technological status, history etc. Grounded theory is an action /interactional oriented method of theory building. This means that properties are processual, purposeful, and include also failed actions and there are always intervening conditions. (Strauss & Corbin,1990)

During the research process we have all the time questioned our findings: what does flexibility mean; how it will be created, is that the only way how we understand flexibility. This questioning resulted our next analysis on flexibility.

Management accounting and control systems in Unimet

We have gathered our data from one fast growing company, namely Unimet Group (United Metal, the name is changed), which is operating as a subcontractor in engineering industry. The company supplies globally services for machining, assembling and hydraulics in auto, mechanical engineering, transmission and defence equipment industries. The turnover in 2008 was almost 200 million Euros and it has over 1.000 employees.

The history of Unimet arises from the year 2002, when the company was separated from the Patriot Group (not real name). Operating management together with a small VC became the main shareholders. The main strategic target was to become a subcontractor that would be able to supply more and more demanding systems to global companies. In the growth strategy of Unimet acquisitions have had the main role. Unimet has hence grown by acquisitions. During the years 2002 and 2008 it has done 15 acquisitions. Unimet has bought both small machine shops and outsourced units from big companies in metal industry. The turnover during these years has grown from 13 million euros (in 2002) to over 200 million euros (in 2008), which means average annual growth of about 57 per cent during six years indicating our case site being a fast growing company. At the same time the organic growth has been about 10%.

All the business units of Unimet are small or medium sized machine shops. Even they are operating in the same field (in metal industry) they all have different production machines, working rules and environments. The strategy is to form more extensive services to global customers, but at the same time top management of Unimet want to maintain the flexibility and agility (entrepreneurial working rules of these small machine shops), while these are seen as strengths of the company. Flexibility and entrepreneurial working rules have been seen to be most essential characteristics of Unimet, while it works as a subcontractor.

The nature in Unimet's business is that new sales orders are got for many different reasons. Sometimes the customer want to outsource units or activities that do not belong to core strategic areas, sometimes customer is seeking more capacity, and sometimes the customer want more flexibility to its own processes. In that case Unimet is the flexible part in the principal's value chain. Thus it is Unimet's task to find more efficient and more flexible operating ways by the same or better quality standards.

However, management control systems and structures have been recurred and developed during the growth of the company. At the beginning the procurement manager was responsible for administrative tasks as his main job. Bookkeeping was organized an external accounting company. In 2004 business controller was recruited to Unimet head office. His main task was to stabilize the systems and standardize the rules of management control and reporting systems. At that time

all the small machine shops had their own management control and reporting systems and working rules. Models for development were mostly drawn from the business controller's previous work experience in a big company. Restructuring of the management control functions towards the structure of big company included also the recruitment of the CFO in 2007.

The main management control mechanism in Unimet from the beginning has been budgetary control. The annual budget is reported and analysed in monthly basis. Business unit managers are responsible for profit. During the year 2006 companywide enterprise resource planning system was implemented. None of the business units (small machine shops), except few managers, have had hardly any experience of using that kind of complex management control system.

In the small machine shops management control was organized in various ways. Most of the machine shops were driven by entrepreneurs who had their own working rules, whereas some of the machine shops were previously been part of global companies and where the management control was organized in more hierarchical ways. After the acquisitions original entrepreneurs did usually not follow the unit to the Unimet company. In the most cases operation managers were risen to the positions of business unit manager. It was one major difficulty there that even they had a strong experience in the manufacturing operations, they had no experience in the business, financial and administrative tasks.

On monthly basis, business unit managers are reporting a set of standardized financial and operational figures together with short details to the top management (these will be presented in next chapter). Top management collects this data and prepares the group reporting for the board. Even all the business units are controlled by the same standardized performance measurement system the management of business units varies greatly.

MACS structural analysis: facilitators and obstacles for flexibility

The analysis in this section seeks to explain how the structure of management accounting and control system impact (facilitate and limit) on organizational flexibility. We categorize inductively our findings on structural elements in four categories: 1) performance measurement system (PMS); 2) strategy; 3) information technology and production infrastructure, and; 4) organizational design and human resource management. We found several factors that either facilitates or hinders flexibility. Table one summarizes facilitators and table two obstacles for organizational flexibility.

Beginning from the customer orientation, one of the main features of flexibility relates to the requirements from production capacity. If there is no production capacity available in one business unit, it is possible to utilize the capacity of the group by delivering production order to another business units where capacity might be available. This flexibility feature would require that customers get all the services they need from one service point (machining, hydraulics, assembling even produced in different business units).

It is also flexibility in Unimet that there are different kinds of machines available in business units. This makes it flexible to response to the customer requirements but also manage the production planning in the organization. This kind of flexibility can be defined as a versatile production capacity in each production unit.

At the group level flexibility comes from the ability to share production needs between a number of business units, in particular, when there is no capacity or special machines available in a single business unit. In this way Unimet as a group would be able to serve different kind of production capacity needs as a combination of all business units, and utilizing the total capacity of Unimet. This feature includes also quick deliveries for the customers and high rate of right time deliveries.

Further, the ability in quick reprogramming and scheduling of production was seen as an element of flexibility. This means that ongoing production process would be stopped and new prioritized production order to be planned and scheduled instead. As a result the production of the original order would be postponed. This type of customer oriented flexibility, however, inevitably creates challenges with the cost efficiency of the production. Option to production flexibility that often requires unanticipated changes in production schedules would be shipping the products from storage to customers. This principle also gives certain options to plan and schedule production lines in a flexible way. If semi-finished products would be produced to storage this would enable longer production batches, better cost efficiency in production without losing the capability for quick deliveries to order.

One of the main issues in flexibility is personnel flexibility. This can be divided into know-how and expertise, and attitudes of personnel. Know-how and expertise means that personnel are able to operate alongside different machines, as well as for different kind of production orders, also for other business units. This includes also communication and information so that personnel understand the business operations and logic of customer. Then the requirements of the customer are well known making it easier to respond. One element of flexibility in some manufacturing sites is the same geographical location with the customer, because it increases possibilities for active formal and informal communication.

Attitudes of the personnel were also mentioned as an element for flexibility. Particularly this was mentioned in the situations when overtime was required to

fulfill the production orders and delivery times for the customer. In addition it was in some business units emphasized that there exists a cooperative atmosphere and group spirit to operate together.

We also found organization structure and management as potential sources of flexibility. It was emphasized that the customers are always served as the customers of Unimet, not individual business units. This demand was expressed in managerial calls for increasing the cooperation between the business units and the critics of profit center control. In our case organization business unit managers perceived that they were pretty independent and the group level hierarchy was pretty low. There were administration and policies in the group, but in those limits it was able to work very independently. The structural facilitators of flexibility in management accounting and control systems are next illustrated in Table 1.

Table 1 MACS structural facilitators of flexibility

			PMS	Strategy	IT & Prod. infrastructure	OD & HRM
Customer flexibility	1	Fast delivery times to customer	X			
	2	Rapid production line changes at factories for customer requirements	X			
	3	Fast pilot production for customers	X			
	4	Fast reactions to inquiries to customers	X			
	5	Understanding the changes in production required by customers		X		
	6	Understanding the business model of customers		X		
	7	Same business models with customers		X		
Production flexibility	8	Diversified set of machines and robots (to make different kind of products by the same machine)			X	
	9	Outsourcing of production			X	
	10	Information from customer to plan the production to make production schedule			X	
	11	Personnel's knowhow for different kind of tasks				X
Financial flexibility	12	Understanding the business as a whole		X		
	13	Personnel's ability to observe the whole organization	X			
	14	Usability of resources inside the whole organization	X			
	15	Operating as an independent business unit				X
	16	Flat organization structure				X
	17	Few reporting requirement and instructions	X			
	18	Capacity of different resources in organization	X			
	19	Complete planning of the organization	X			
	20	Understanding the production capacity of the organization		X		
	21	Observing the strengths of the organization	X			
Personnel flexibility	22	Good relations with other business units				X
	23	Personnel's understanding for the changing situations		X		
	24	Personnel's willingness for switching working hours by production schedule				X

Our findings, however, illustrate that it is not only structural facilitators that define the flexibility but understanding the role of obstacles for flexibility is as important. As well as we can say that it is the customer orientation which drives the flexibility, we can argue that it is the requirements for financial efficiency which hinder flexibility. This can be illustrated in many ways in production, personnel and organization related categories.

Extra capacity in production creates flexibility in customer orientation but it also adds costs. This is also the case when rescheduling and production line changes are required continuously. In short term it is possible to transfer production orders to the other business units but this was mentioned to increase costs. There are different machines and they have to be set for new and different ways for transferred production orders, which typically increase costs.

There was also evidence that production staff is not always able to do certain kind of machining. Production transfers between units may be difficult due to the highly specialized production technologies and differing capabilities of the personnel. Production transfers between units create problems in understanding the requirements of the customer correctly. This is especially true when the business unit lacks the experience of cooperation with the particular customer served earlier by another business unit.

In addition, we also found challenges in attitudes towards other business units in production transfers. It was not clear that production transfers were accepted into productions. This was due to additional work and costs of rescheduling the works and because all the business units were profit centers trying to maximize their own profits. Sometimes personnel in the business units were not willing to make extra works, which can also be seen as a feature of inflexibility.

At the business units the increased group level reporting rules and forms were perceived to increase inflexibility. Group level policies mean increasing standardization. This means that in business units they were required to change their own local working ways of doing to the group ways of doing, including reporting. Also original local working culture (local cultures, based on histories of each business units) was moving toward unified Unimet corporate culture, and the standardization was essential part of that shift taking place. In the business units also the group structure was perceived to increase administrative costs. Next we illustrate the structural obstacles of flexibility in management accounting and control systems in the Table 2.

Table 2 MACS structural obstacles of flexibility

			PMS	Strategy	IT & Prod. infrastructure	OD & HRM
Customer inflexibility	1	Continuous customization increases costs	X			
Production inflexibility	2	Differences in manufacturing infrastructure between units			X	
Personnel inflexibility	3	Unwillingness for switching working hours				X
	4	Inability to perform different kind of tasks				X
	5	Personnel's resistance to other business units				X
	6	Unfamiliarity of the end customer		X		
	7	Personnel's resistance to take new products in production	X			
	8	Personal situations				X
Financial flexibility	9	Incorrectly managed communication	X			
	10	Different kind of business unit cultures				X
	11	Administrative head quarter costs allocated to the business units	X			
	12	Controlling reports required by top management	X			
	13	Using the ERP-system			X	
	14	Formal control reports	X			
	15	Overcapacity	X			
	16	Common rules in organization	X			
	17	Complete planning of the organization	X			
	18	Business units operates too independently	X			

The basic tension around flexibility is between financial requirements and customer oriented production. In machine shops, it is understood that increase in hierarchical controls is hindering flexibility in production. Top management, on the other hand, fears that adding flexibility in production would lead in the losing of control over factories. At business unit levels flexibility is related working close to the customer, contrary to top management who understand flexibility mostly in terms of planning and utilizing the whole organization and its' production resources in integrated way.

For top management flexibility means shared rules, because on that way it is easier to plan the whole organization as one entity. Contrary to that, in business units that have previously been entrepreneurial driven independent firms and where heuristic rules of thumb were now replaced by formal corporate rules and policies. The organization wide rules such as investment plans and monthly financial reports have been perceived strongly hindering flexibility at the shop floor.

We found that there actually existed resistance to receive production orders from other business units. This was explained that there is no interest for job orders outside from the scheduled production, because then the current production has to be stopped, new production started and after that the scheduled production started again.

MACS relational analysis: compromising for flexibility

One of the main finding of our study is that the flexibility seems to be constructed in the interfaces between different organizational functions. The functions in this analysis are ‘sales and marketing’, ‘production’, ‘financial management’ and ‘personnel management’. Each of the functions have their specific objectives, that sometimes may conflict with the objectives of other functions. Therefore compromising is needed.

Flexibility is seen here as an outcome of activities in the main functions of organization. As example in production, the flexibility is related to the personnel willingness for switching working times, by customer special requirements, and by the available resources of the whole organization. Thus the flexibility in production will be not created and constructed solely in production. Instead of that, the creation of flexibility emphasizes the compromising interfaces between the functions.

Particularly our study illustrates the tension between production and financial aspects of flexibility. Increasing emphasis on the production aspects facilitates and increasing emphasis on the financial aspects hinders materialization of flexibility and vice versa in practice. We can argue that additional production resources would be one necessary element to increase flexibility in delivering special products to customer order. Extra machinery and larger use of intermediate storages would be the issues to negotiate and compromise with people in corporate management and finance. The financial aspect is not, however, about group of people in another location but rationality or aspect to think about within each business unit. The questions thus have both organizational and individual level in which different objectives have to be compromised, sometimes even optimized.

We also found tensions to be compromised between production and personnel objectives. It is not only production technology and storing that affect organizational flexibility, but there are multiple demands for personnel. Personnel are required to learn and get experience in growing number of production phases, technologies and tasks. Personnel is also required to work extra hours when needed, serve other business units within Unimet, cooperate with different teams and people within and outside of the organization. That type of flexibility may require compromising between different individuals on work schedules, pay, tasks, training, free-time etc. Human resource management function, business unit managers and foremen have to negotiate on financial incentives and create commitment to shared understanding of the importance of flexibility demands.

“We have promised to our main customer that we can deliver the components in 2-3 hours delivery time. Our production process is such sophisticated, and that is mainly based on all-round personnel know-how.” (Business Unit Manager MR)

Flexibility is also created between business units. If the production schedule in one business unit is threatened by machine break down, it is essential to find another business unit with required capacity of producing ordered products in time. This kind of risk management aspect of flexibility is highly valuable for many customers. These special situations, however, require good contacts and cooperation between business unit managers and the knowledge of overall capacity of the Unimet organization.

“It is the strength of our production, and also selling point, that we can transfer the production to other business units under the machine breakdowns” (Business Unit Manager TK)

The flexibility for customer demand often requires different kinds of extra resources, complex information flows and time for planning and negotiation. The question of pricing and terms of contracting are central in solving the tensions between financial aspect and customer demands. It is not possible to build flexibility for customer demand at any price. And customers usually have optional suppliers. It is therefore important to have information on different costs that organizational flexibility creates, and possibly treat them as product related additional services.

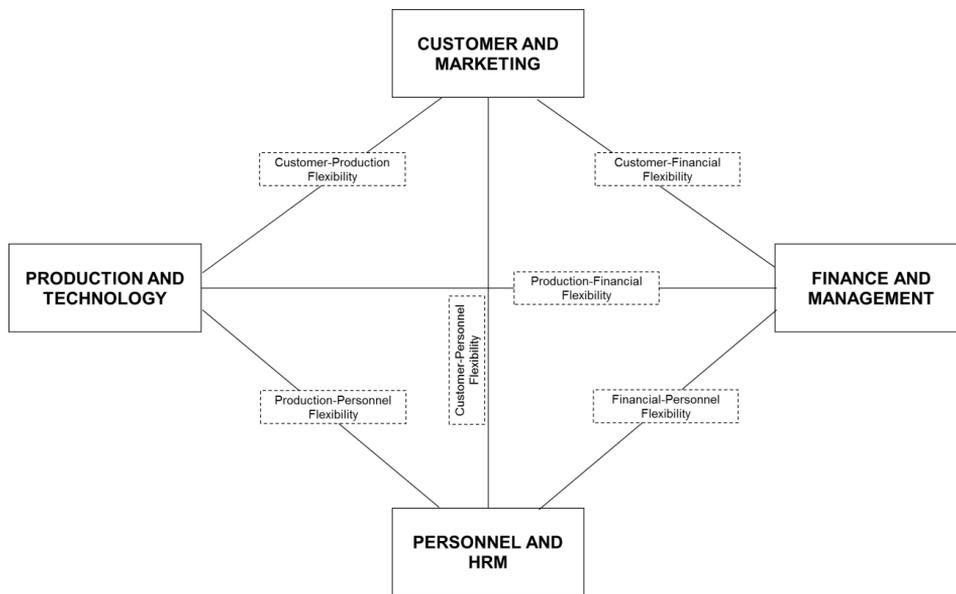


Figure 1 Compromising for flexibility.

In this analysis, we have illustrated that flexibility is created in cooperating and compromising between different organizational functions. In business processes each one of the functions have limited flexibility, but after a certain limit extra flexibility should be created in the process of compromising objectives and rationales of particular functions towards shared visions and corporate rationales. This is illustrated in above Figure 1.

Concluding discussions

This study was set out to examine what elements in management accounting and control systems of a manufacturing company may either facilitate or limit organizational flexibility. Further, we studied how flexibility is enacted in the interfaces between the main functions of the firm. Our study adds to the previous studies on the interface of organizational flexibility and management accounting by analyzing these questions on the basis on a case study conducted with one supplier of metal engineering industry.

We conceptualized organizational flexibility according to Volberda (1997) and Ahmed et al. (1996) as an outcome of different elements that have relevance for flexibility and the special control capacity of management. Based on our empirical findings we presented two frameworks of organizational flexibility, one of which defines different management control systems elements of flexibility and the other one the elements of inflexibility.

We found main tensions on the one hand between production and financial perspectives and on the other and between production and customer perspectives of flexibility. In this way our study gives supports to the argument of previous studies (Chenhall, 2008; Mouritsen 1999; Abernethy and Lillis, 1995; van Veen-Dirks, 2006). This study, however, indicate that there are more tensions where management control system may have some role to play. We argue that organizational flexibility as a strategic capability is not only resulting from appropriate fit between customer orientation, production capacity and financial efficiency of the organization but also personnel and human resource aspects have importance.

The role of people in actively building organization flexibility cannot be exaggerated. Corporate management has a key role in as they have power to design control system but also because they have the say in many negotiations that are necessary in building organizational flexibility in daily actions. In addition to top management and control system design questions there is the whole personnel in the organization, customers, suppliers and the technology package of the organization that have to be constantly adapted to the new situations. Therefore we highlight the importance of the everyday rationale of people in organization when they compromise different aspects of the firm into sustainable decisions and actions.

Management accounting and control systems seem to have an important role in balancing tensions and facilitating compromises in seeking flexibility in interfaces between financial, customer, production and personnel aspects. It have a role in building cooperative corporate cultures, facilitating information flows and communication, developing performance measures, seeking incentives and creating common platforms for effective cooperation between both group and business units and between business units, but also with suppliers and customers, and moreover, motivating personnel to see beyond the scope of single business units.

We call for further studies that could examine the interplay of different functions of the organization as well as the role of management accounting and control system in building organizational flexibility.

References

- Abernethy, M. – Lillis, A. (1995) The impact of manufacturing flexibility on management control system design. *Accounting, Organizations and Society*, Vol. 20 (4), 241–258.
- Ahmed, P. – Hardaker, G. – Carpenter, M. (1996) Integrated flexibility – Key to competition in a turbulent environment. *Long Range Planning*, Vol. 29 (4), 562–571.
- Ahrens, T. – Chapman, C. (2004) Accounting for Flexibility and Efficiency: A Field Study of Management Control Systems in a Restaurant Chain. *Contemporary Accounting Research*, Vol. 21 (2), 271–301.
- Ahrens, T. – Chapman, C. (2006) Doing qualitative field research in management accounting: Positioning data to contribute to theory. *Accounting, Organizations and Society*, Vol. 31 (8), 819–841.
- Ahrens, T. – Dent, J.F. (1998) Accounting and Organizations: Realizing the Richness of Field Research. *Journal of Management Accounting Research*, Vol. 10 (1), 1–39.
- Ahrens, T. – Becker, A. – Burns, J. – Chapman, C.S. – Granlund, M. – Habersam, M. – Hansen, A. – Khalifa, R. – Malmi, T. – Mennicken, A. – Mikes, A. – Panozzo, F. – Piber, M. – Quattrone, P. – Scheytt, T. (2008) The future of interpretive accounting research. *Critical Perspectives on Accounting*, Vol. 19 (6), 840–866.
- Bowen, D. E. – Siehl, C. – Schneider, B. (1989) A Framework for Analysing Customer Service Orientations in Manufacturing. *Academy of Management Review*, Vol. 14 (1), 75–95.
- Chapman, C. – Chua, W. (2003) Technology -driven integration, automation, and standardization of business processes, implications for accounting. In *Management Accounting in the Digital Economy*, ed. by A. Bhimani. Oxford: Oxford University Press.
- Chenhall, R. (2008) Accounting for the horizontal organization: A review essay, *Accounting, Organizations and Society*, Vol. 33 (4–5), 517–550.
- Chenhall, R. (2005) Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study. *Accounting, Organizations and Society*, Vol. 30 (5), 395–422.
- Drucker, P. F. (1990) The Emerging Theory of Manufacturing. *Harvard Business Review*, May–June, 94–102.

- Galbraith, J. R. – Lawler, E. (1993) *Organizing for the future*. San Fransisco: Jossey-Bass.
- Galbraith, J. R (1994) *Competing with lateral flexible organizations*. Reading: Addison-Wesley.
- Glaser, B. – Strauss, A. (1967) *The discovery of grounded theory: strategies for qualitative research*. New York: Aldine Transaction.
- Hassard, J. (1991) Multiple paradigms and organizational analysis: A case study. *Organization Studies*, Vol. 12 (2), 275–299.
- Ittner, C. – Larker, D. (1997) Quality strategy, strategic control systems, and organizational performance. *Accounting, Organizations and Society*, Vol. 22 (3–4), 293–314.
- Jenkins, M. (1997) *The customer centred strategy, Thinking strategically about your customers*. London: Pitmans.
- Järvenpää, M. – Pellinen, J. (2005) Teoria ja interventio suomalaisissa johdon laskentatoimen case- tai field-menetelmällä tehdyissä akateemisissa opinnäytteissä 1997-2005. In *Contributions to Accounting, Finance and Management Science, Essays in Honour of Professor Timo Salmi*, ed. by E.K. Laitinen – T.K. Laitinen, 65–108. Vaasa: Acta Wasaensia, No. 143.
- Miller, P. – O’Leary, T. (1994) Accounting, “economic expertise”, and the spatial reordering of the manufacture. *Accounting, Organizations, and Society*, Vol. 19 (1), 15–43.
- Miller, P. – O’Leary, T. (1997) Capital Budgeting Practices and Complementarity Relations in the Transition to Modern Manufacture: A Field-Based Analysis. *Journal of Accounting Research*, Vol. 35 (2), 257–271.
- Mouritsen, J. (1999) The flexible firm: strategies for a subcontractor’s management control. *Accounting, Organizations and Society*, Vol. 24 (1), 31–55.
- Munro, R. – Hatherley, D. (1993) Accountability and new commercial agenda. *Critical Perspectives on Accounting*, Vol. 4 (4), 369–395.
- Nemetz, P. L. – Fry, L. W. (1988) Flexible Manufacturing Organizations: Implications for Strategy Formulation and Organization Design. *Academy of Management Review*, Vol. 13 (4), 627–639.
- Parker, L. – Roffey, B. (1997) Methodological themes: Back to the drawing board: revisiting grounded theory and the everyday accountant’s and manager’s reality. *Accounting, Auditing & Accountability Journal*, Vol. 10 (2), 212–247.

- Partanen, V. (2001) *Muuttuva johdon laskentatoimi ja organisatorinen oppinen: Field-tutkimus laskentahenkilöstön roolin muutoksen ja uusien laskentainnovaatioiden käyttöönoton seurauksista*. Turku: Publications of the Turku School of Economics and Business Administration, A-6:2001.
- Simons, R. (1990) The Role of Management Control Systems in Creating Competitive Advantage: New Perspective. *Accounting, Organizations and Society*, Vol. 15 (1–2), 127–143.
- Smith, J. – Morris, J. – Ezzamel, M. (2005) Organisational change, outsourcing and the impact on management accounting. *The British Accounting Review*, Vol. 37 (4), 415–441.
- Stalk, G. – Hout, T. (1990) *Competing against time*. London: The Free Press.
- Strauss, A. (1987) *Qualitative Analysis for Social Scientists*. New York: Cambridge University Press.
- Strauss, A. – Corbin, J. (1990) *Basics of Qualitative Research, Grounded Theory Procedures and Techniques*. USA: Sage Publications.
- Vaivio, J. (2008), Qualitative management accounting research: rational, pitfalls and potential. *Qualitative Research in Accounting & Management*, Vol. 5 (1), 64–86.
- van der Meer-Kooistra, J. – Scapens, R. (2008) The governance of lateral relations between and within organisations. *Management Accounting Research*, Vol. 19 (4), 365–384.
- van Veen-Dirks, P. (2006) Complementary choices and management control: Field research in a flexible production environment. *Management Accounting Research*, Vol. 17 (1), 72–105.
- Volberda, H. (1997) Building flexible organizations for fast-moving markets. *Long Range Planning*, Vol. 30 (2), 169–183.

Equity Premium in Finland

Mika Vaihekoski

Turku School of Economics, University of Turku

Introduction

Equity premium is defined as the stock market return in excess of the return on a risk-free security. It is one of the key inputs in modern finance; required and expected returns on stocks are defined with respect to the equity premium. As such, it has major influence on a number of practical applications. For example, analyzing the sufficiency of pension savings requires some kind of estimate for the rate of return one can expect from the equity investments. On the other hand, equity premium also affects the companies' weighted costs of capital and hence influences their real investments.

To model the expected equity premium, the most natural starting point is its historical development. As a result, there is a lot of interest towards the realized equity premium in different equity markets all around the world. Unfortunately, until recently, only a few studies (one exception being, e.g., Dimson, Marsh, and Staunton 2002) have been conducted outside the biggest stock markets. One reason behind the lack of studies has been the fact that sufficiently long and high quality time series have been on few and far between for many countries. Finland has been one of these countries where past empirical analyses have suffered from the unavailability of a stock market index that captures the total return on the Finnish stock market. However, Nyberg and Vaihekoski (2009 and 2010) created for the first time a monthly stock market index that allows one to measure the total return performance of the Helsinki Stock Exchange from its establishment in October 1912 to the present day. The other component of the equity premium, the risk-free rate of return series, as well as another commonly utilized variable, a monthly measure of inflation, were introduced in Nyberg and Vaihekoski (2014a). Using these variables one can conduct long-term historical and cliometric analysis on the Finnish stock market.

Nyberg and Vaihekoski (2014a) analyze the equity premium in Finland. Here the results are updated using a slightly updated version of the stock market index as well as using a six years longer sample period from 1912 to the end of 2015. Similar to Nyberg and Vaihekoski (2014), the equity premium in Finland is compared against the premium in Sweden and in the USA. Sweden is a natural benchmark for Finland as the countries have long historical ties and they have both

emerged as top performing countries in many contemporary rankings. From a financial and an economic point of view they also underwent many similar developments (e.g., opening of their markets, economic and banking crisis in the early 1990s, closely related exchange rate policies, just to name a few). However, in many ways, Sweden led the development as it was economically clearly more developed than Finland in the early 1900s, and during the past centuries Finland has tried to catch up with its western neighbor. The US market, on the other hand, is a natural global reference point for all studies in equity premium.

Historical overview and data

At the beginning of the sample period in 1912, Finland was a poor agrarian country, still part of the Russian Empire (independence was claimed later in 1917), lagging clearly behind other western countries in its economic development. GDP per capita was typically only 60 percent of the western European average (see Tiihonen, 2012). However, various factors, including a rapid production growth and changes in the industrial structure, led to economic convergence and Finland was able to catch up with other western countries. Simultaneously Finland evolved from a relatively closed economy to an open, export-oriented country. As a result, the size and the industries of the publicly listed companies changed considerably from the home-market oriented companies to internationally competitive technology-oriented companies, with Nokia leading the way.

As far as the Finnish stock market goes, the beginning was very modest. At the end of 1912, there were only slightly more than thirty stock series listed on the Exchange. However, the number of listed companies as well as the equity capital raised started to increase which slowly but surely helped Finnish companies to grow. Nyberg and Vaihekoski (2014b) studied the size of the stock market and its role in the economy. They calculated the market capitalization value of listed stocks, and compared it to the market value of the GDP. The average MCAP-to-GDP ratio from 1912 to 2012 was 31.79%. This reflects the fact that, during most of the period analyzed, the stock market did not play a major role in the Finnish economy. However, towards the end of the period, the situation changed, and at times the value of the stock market was over three times the value of gross domestic product. More information about the economic and financial development in Finland can be found from Nyberg and Vaihekoski (2014a,b).

To calculate continuously compounded stock market returns for Finland, we use month-end values of the value-weighted total return stock market index for Finland first introduced in Nyberg and Vaihekoski (2009 and 2010). The index has been subsequently updated in Nyberg and Vaihekoski (2014a) as more information for

the period from 1912 to 1969 were collected.¹ The updated index is then spliced with the corresponding WI (1970-1990) and the official OMXH general total returns (1991-2015) indices. To calculate excess returns, i.e. equity premium, we subtract the one month risk-free rate of return. Similarly, to calculate real stock market returns, we subtract the one month inflation, both calculated using continuous compounding (for definitions and sources, see Nyberg and Vaihekoski, 2014a).

The stock market return for the USA is calculated using the S&P500 price index combined with the monthly dividend series for October 1912 to the end of 2015. In practice, we utilize series downloaded from Professor Welch's website. Risk-free rates are taken from the same source. Inflation is taken from Professor Shiller's website. Monthly stock market return as well as risk-free rate and inflation for Sweden are taken from Professor Waldenström's website. He provides a monthly total return index for the Swedish market from January 1901 to beginning of 2015. For the period from 1918 to 1995, the stock market index as well as the risk-free rate are based on the Frennberg and Hansson (1992). Values prior to 1918 are based on Waldenström's own calculations. After 1995, the index is based on the SIXGX total return index (augmented here to the end of 2015).

Empirical results

As noted in Nyberg and Vaihekoski (2014), financial theory makes some predictions about the equity premium. First, there are theoretical reasons to believe that the historical equity risk premium should be high in Finland, that since for a long time it had strong constraints on inward and outward foreign equity investment (Bekaert and Harvey, 2003). In closed capital markets, local investors have to bear all the risks related to the country's economic activities—they cannot diversify their holdings internationally and foreign investors cannot participate in bearing some of the risks related to the country's economy. Due to the high amount of undiversifiable risk that local investors have to bear, equity prices will be depressed and expected stock market returns (the equity premium) will be high as it includes compensation for the local market risk. Second, given decades of low liquidity and informational efficiency, both of which have improved towards the end of 20th century, one can expect that investors have required compensation for both leading to higher returns *ceteris paribus*.

Using monthly time series from 1912 to 2015, the Finnish stock market has offered investors a continuously compounded nominal return of 12.37 percent per

¹ In fact, the index has been further updated after the 2014 study. The differences are mostly due to changes and corrections in the dividend and book equity matrices as well as updates to the price matrix.

annum. During the same period, the average returns in the USA and in Sweden were 9.38 and 9.30 percent, respectively. Thus, when measured over period longer than hundred years, the Finnish stock market has provided excellent returns in nominal terms when compared to the USA and Sweden. Figure 1 shows the development of value of one unit invested.

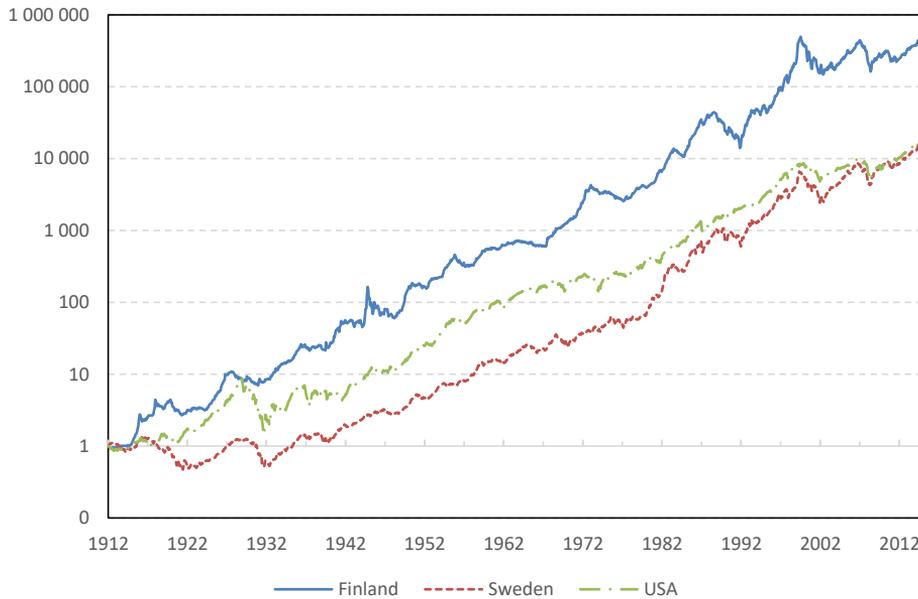


Figure 1 Cumulative nominal monthly return from stocks in Finland, Sweden, and the USA, October 1912 to December 2015. Starting value set to one

However, nominal returns tell only half of the story as high nominal returns can be due to high inflation. To get a more realistic measure of the stock market performance, one needs to calculate real returns. Figure 2 shows how inflation has developed in each of the countries.

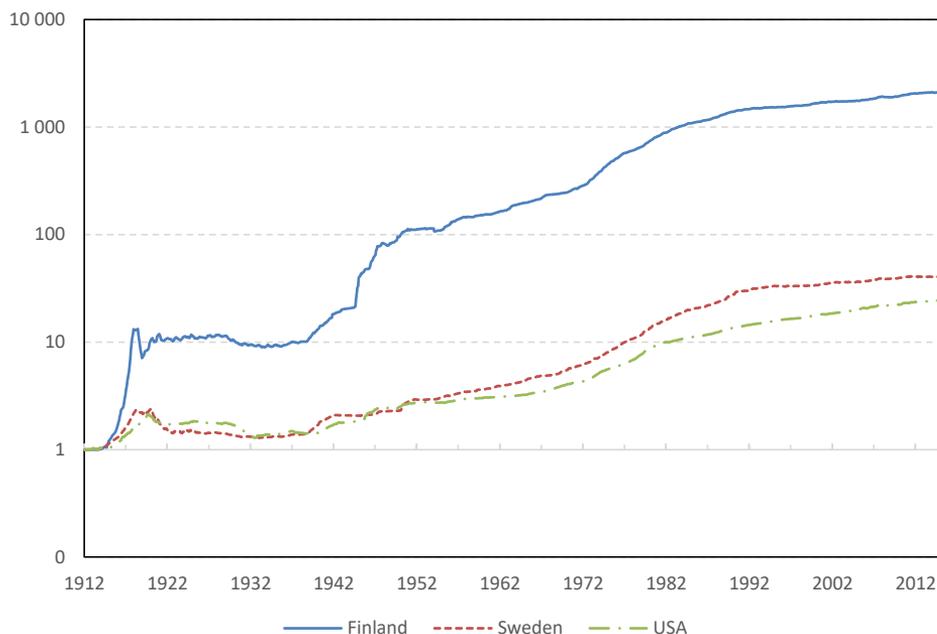


Figure 2 Inflation indices for Finland, Sweden, and the USA

From Figure 2 we can see that there are several periods when consumer prices have increased faster than usual. This happened e.g. during the First and the Second World War. In Finland, there were even periods when prices more than tripled in a year during the civil war that ensued after Finland's declaration of independence from Russia in December 1917. The average continuously compounded inflation in Finland during the whole sample period was 7.27 percent per annum whereas the average inflation in the USA was only 3.02 percent and in Sweden 3.56 percent. Thus, taking inflation into account, the real stock market return in Finland was, on average, only 5.16 percent per annum which is clearly lower than in the USA (6.28 percent) but almost on par with Sweden (5.58 percent). As a result, if one compares the stock market return in real terms, the US market excels in comparison to Finland and Sweden. If we exclude the somewhat extraordinary inflationary period of 1910s and measure the real returns from the beginning of 1920, the results show that real returns on average are higher, 6.35 %, 7.00 %, and 7.11 % for Finland, Sweden, and the USA, respectively. However, again Finland has provided the lowest returns.

To calculate the equity premium, we calculate the difference in monthly continuously compounded equity and money market (risk-free asset) returns. The average historical Finnish equity premium has been fairly high, 6.31 percent per annum. It is clearly higher than the equity premium estimate of 4.22 percent for Sweden. It is also higher than 5.87 percent for the USA.

There can be several reasons behind the cross-country variations in the risk premium. Obviously, high equity premium could be due to high risk. However, the volatility of the Finnish stock market actually highest of the three countries analyzed, 20.28 percent per annum during the sample period. On the other hand, volatility has not been that much higher than in the US (17.90 percent) or in Sweden (16.58 percent). Analyzing rolling volatilities in detail, we can see that the Great Depression in the 1930s created much higher volatility in the US stock market than in the Finnish or Swedish stock markets. On the other hand, the end of WWII did not trigger the same kind of increase in volatility in the USA or in Sweden as it did in Finland. Some similarities can also be found; for example, the oil crisis in the 1970s seems to have had an impact on all markets.

An explanation for the relatively high equity premium in Finland could be the extremely positive performance of Nokia Corporation at the end of the 20th century. Nyberg and Vaihekoski (2014) analyzed this situation by studying an alternative stock market index which limits the weight on Nokia. The results showed that the high equity premium cannot be contributed to Nokia alone. High equity premium in Finland is most likely driven partly by the artificially low interest rates (risk free rate of return) during the sample period. Low interest rates were the result of government's control over interest rates and nonexistence of true money market in Finland until 1987 both of which contributed to investors' low returns on short-term (risk-free) investments. However, this was also the case at least to some degree in Sweden.

Conclusions

Overall, the results show that the Finnish stock market has performed very well during the sample period giving support for the predictions made by the finance theory. The nominal returns has been on average much higher than in the USA and Sweden but when the inflation is taken into account, the real returns have been, on average, lower in Finland than in the other two countries.

The equity premium has been, on average, 6.31 percent per annum in Finland. In Sweden, the equity premium was estimated to be 4.22 percent and in the USA 5.87 percent. Thus, the Finnish equity premium has been higher than that of the USA and Sweden. The most likely reason for the high estimate of the realized equity premium in Finland is the lack of true market based money market rates for most of the sample period. The average premium for Finland comes surprisingly close to the commonly used industry recommendation of using five to six percent as the equity premium in financial models for Finland. Naturally, long-term historical average is just a starting point to estimate the expected risk premium in the future.

References

- Bekaert, G. – Harvey, C. (2003) Emerging Markets Finance. *Journal of Empirical Finance*, Vol. 10 (1–2), 3–56.
- Dimson, E. – Marsh, P. – Staunton, M. (2002) *Triumph of the Optimists: 101 Years of Global Investment Returns*. New Jersey: Princeton University Press.
- Frennberg, P. – Hansson, B. (1992) Computation of a monthly index for Swedish stock returns: 1919–1989. *Scandinavian Journal of Economic History Review*, Vol. 15 (1), 3–27.
- Mehra, R. – Prescott, E. (2003) The Equity Premium in Retrospect. In *Handbook of the Economics of Finance. Volume 1B. Financial Markets and Asset Pricing*, ed. by G. Constantinides – M. Harris – R. Stulz, 889–938. Amsterdam: North Holland.
- Nyberg, P. – Vaihekoski, M. (2009) A new value-weighted total return index for the Finnish stock market. *Bank of Finland, Discussion Papers Series*, 2009, No. 21.
- Nyberg, P. – Vaihekoski, M. (2010) A new value-weighted index for the Finnish stock market. *Research in International Business and Finance*, Vol. 24 (3), 267–283.
- Nyberg, P. – Vaihekoski, M. (2014a) Equity Premium in Finland and Long-Term Performance of the Finnish Equity and Money Markets. *Cliometrica*, Vol. 8 (2), 241–269
- Nyberg, P. – Vaihekoski, M. (2014b) Descriptive analysis of the Finnish stock market: Part II. *Bank of Finland, Discussion Papers Series*, 2014, No. 10.
- Tiihonen, S. (2012) *The Ministry of Finance. Two Hundred Years of State-Building, Nation-Building & Crisis Management in Finland*. Helsinki: Suomalaisen kirjallisuuden seura.
- Waldenström, D. (2014) Swedish stock prices and returns and bond yields 1856–2012. In *Historical Monetary and Financial Statistics for Sweden, vol. 2: House Prices, Stock Returns, National Accounts and the Riksbank balance Sheet, 1860–2012*, ed. by R. Edvinsson – T. Jacobson – D. Waldenström, 223–292. Stockholm: Sveriges Riksbank and Ekerlids förlag.

To The Land of Accounting

Juhani Vaivio

School of Business, Aalto University

Was it in the wind? Was it in the stars? Or written in some cards?
 Anyway, too late. This is, my friend, our fate
 Of all roads we took the one mounting - to *The Land of Accounting*
 So today, as you see, I have a few words, about that journey, to Thee.

Let me first point to, nothing less, than to what we knew as "reality"
 And to what happened with our original ontology
 That our dearest certitudes suddenly shaken, weakened, ridiculed!
 Replaced by crooked constructions, on slippery slopes
 That it all depends on perspectives
 That common sense, ordinary observations, have theoretical additives
 That it is our quest to question, and to question the question
 In every "reality", I guess we learned, always some fragility
 Which sometimes may cause us inevitable insecurity.

En route to our designated destiny
 We also discovered, rapidly, a dimension of the mind - typical to men of our kind
 To think beyond the mundane, single or particular
 And move towards the more fundamental, solid, general
 To mobilize a formidable force, the part of the brain, the intellect, that we should
 nurture and respect
 Residing in a section called "Power of Abstraction"
 takes place the unchained theorizing action - free from empirical distraction
 Answering the call, simple but not small: "Hey, what do you want to say?"

But don't get me wrong in this part of the academic song,
 which we have been humming all along
 For mounting to *The Land of Accounting* demands a certain stamina
 a readiness to face and listen, in earnest, to what is called "phenomena"
 On this road, no glory if you stick to the *a priori*
 For us, no yield if you don't humbly walk the field
 Catching themes where everything is not what it seems
 Looking for the silent but emergent, the true cue revealing the new

No piece of evidence, insight or theoretical plight
 would have been of value, had we not got it quite right
 - in avoiding the fight with those who have the might
 To reach our destination, we did better in writing the polite cover-letter
 Admitted flaws of argument, created the right sentiment
 Viewed the review as an art of the patient, hard-working few
 By diligence we climbed the fence - and then drank the golden brew...

Maybe, my friend, all these years of mounting towards accounting
 have taught us a thing that truly counts, a thing to treasure
 Beware of how you measure!
 That numbers have many powers
 Some kill all the flowers
 But at best they let us rest, serve as servants should.
 So, the two of us cry next: It all depends on the context!

In *The Land of Accounting* we now stand, Markus.
 Have found the locus, the right modus.
 Wandering - perhaps - where to focus?
 But what is certain in this tale of fate
 is that with these few words I Thee congratulate.

Exploring the Effects of External Accounts

Eija Vinnari and Matias Laine

Faculty of Management, University of Tampere

Abstract

The purpose of the paper is to study the dynamics and transformative potential associated with external accounts, focusing especially on the effects they generate while in circulation. Theoretically, the paper draws on Callon and Rabeharisoa's (2003; 2008) work on emerging concerned groups. Empirically, the paper investigates the role of external accounts during animal rights activists' campaign against industrial meat and dairy production in Finland. The authors find that the external accounts participated both in the formation of the involved actors' identities and the emergence of small-scale societal effects. Production animals have acquired an ontological status of semi-sentience while the respective identities of the activists and the representatives of the establishment have emerged as polar opposites.

Keywords: external accounts; emerging concerned groups; animal rights, animal welfare

Introduction

Social and environmental accounting research has displayed a persistent interest in forms of accounting that could support a transition towards a more democratic and sustainable world (e.g. Bebbington, Brown & Frame, 2007; Bebbington and Larrinaga, 2014; Brown, 2009; Gray, 2002; Gray, Dillard & Spence, 2009; Owen, 2008). As corporate social and environmental accounts have often been noted to be self-serving and biased (Boiral, 2013; Milne, Tregidga & Walton, 2009), counter accounts produced by external parties have been suggested as an alternative to enhance information flow to various constituencies and thereby facilitate steps towards a more sustainable society (Dey, 2007; Dey, Russell & Thomson, 2011; Gallhofer et al., 2006; Sikka, 2006; Spence, 2009; Gray, Brennan & Malpas, 2014).

Despite the emerging interest and recent contributions (e.g. Apostol, 2015; Dey et al., 2011; Gray et al., 2014; Thomson, Russell and Dey, 2015), our knowledge of the significance of external accounts remains inadequate. It is evident that there

is still a paucity of studies which would focus on external accounts in action, analysing their use and subsequent effects in social settings (Rodrigue, Cho and Laine, 2015; Spence, 2009; Thomson et al., 2015). In particular, Thomson and colleagues (2015) call for further work which would examine external accounts' effects in terms of engendering the sought after transformation.

We contribute to this discussion with a longitudinal case study, which explores the role of external accounts during an episode taking place in Finland, where some animal rights activist groups have actively campaigned against industrial meat and dairy production. A key role in this campaign has been played by videos from pig farms, filmed in secret by animal activists who have taken advantage of unlocked doors at these low security facilities. The film clips, which we conceptualize as visual external accounts, have received wide publicity, appearing for instance in front-page headlines throughout the national press, in addition to which they have been discussed in the parliament and on other political levels. It nevertheless remains unclear what kind of effects these external accounts eventually had on the societal perception of production animals and the institutionalized practice of meat production and consumption.

Accordingly, the broad purpose of this paper is to study the dynamics and transformative potential associated with external accounts. More specifically, we are interested in seeking answers to the following question: what kind of effects do external accounts generate while in circulation? Our main empirical dataset consists of 21 interviews, which we have conducted with the activists, politicians, researchers as well as representatives from the meat industry, retail stores, interest organizations and lobby groups. Moreover, to supplement our analysis we also make use of other data, including corporate annual and CSR reports, advertisements, media stories, brochures and promotional material, as well as other published material.

Our analysis draws on Michel Callon's and colleagues' work on emerging concerned groups (Callon, 2007; Callon & Rabeharisoa, 2008; Callon, Lascoumes & Barthe, 2009) to discuss especially the identity-related and political effects generated by the production and dissemination of the external accounts.

With this paper we hope to make a twofold contribution to extant literature. First, from a theoretical perspective, our case study illustrates (Keating, 1995) how Callon and Rabeharisoa's (2003; 2008) work on emerging concerned groups can be employed to increase theoretical understanding regarding the political and other effects of external accounts. Second, from an empirical perspective, our study contributes to the growing stream of work on external accounts. We provide a direct response to the call of Thomson and colleagues (2015), who emphasise the need for further research on the use of external accounts in contested settings to better understand the efficacy of such accounts.

The paper flows as follows. The second section briefly reviews prior work on external accounts before proceeding to present the concept of emergent concerned groups as well as related notions, which will serve as the conceptual framework for our analysis. The third section introduces our case study setting in more detail as well as describes the data and methods used in this paper. In the fourth section, we present and analyse our findings in light of the theoretical framework. The paper ends with a concluding discussion and implications for further research.

Investigating the effects of external accounts

Prior literature

Currently, corporate voluntary social responsibility reporting is a widely spread phenomenon across the world (Bebbington, Unerman & O'Dwyer, 2014). Although corporations in their reporting keep highlighting their benevolence and engagement with social responsibility and sustainability, prior research has constantly noted how these voluntary disclosures tend to provide a one-sided description (see Rodrigue, 2014), in which any negative aspects are either mitigated or omitted in full (e.g. Boiral, 2013; Milne & Gray, 2013). Accordingly, it has been suggested that instead of firms' voluntary disclosures, it would perhaps be worth utilizing other, alternative accounts of organizational activities. Such external accounts (also known as counter accounts or silent/shadow accounts) are usually created by some group outside the organization in question. The key benefit of external accounts relates to the possibility to problematize or challenge an organization or an activity, which the group preparing the account considers to have negative or otherwise undesirable social or environmental consequences. One would typically expect an external account to provide information that is either novel or alternatively counters some information produced by the organization under scrutiny (see Apostol, 2015; Cooper et al., 2005; Dey et al., 2011; Harte and Owen, 1987; Thomson et al., 2015).

It has been argued that by providing alternative representations and supplementary information, external accounts are able to problematise and "make 'thinkable' and 'governable' such issues that are currently regarded as 'unthinkable' and 'ungovernable' by those in power" (Dey et al., 2011, p. 66). Moreover, such 'counter accountings' could reflect, facilitate and encourage the voices of diverse interests, as they can be produced with relative autonomy from society's established institutions and power structures (Gallhofer, Haslam and Yonekura, 2015). However, although prior research includes discussions of how external accounts have been used in different situations, we still know relatively little of their effectiveness in

influencing longer term change and aspired transformations. One example of a setting in which counter accounting has been used to influence more powerful social actors, is discussed by O'Sullivan and O'Dwyer (2009), who provide insights on the nature of counter accounting related to the launch and initiation of a financial sector social and environmental responsibility initiative, the Equator Principles. O'Sullivan and O'Dwyer (2009) point out how during the process non-governmental organizations (NGOs) sought to influence the financial institutions with different methods of involvement, including various external accounts. They conclude that NGOs were influential in the initiation of the Equator Principles and that counter accounting had a role in this accomplishment.

Brennan and Merkl-Davies (2014) provide a rhetorical analysis of the press releases issued by Greenpeace and several international sportswear firms in a public controversy over the use of hazardous chemicals in the supply chain. Their paper highlights how Greenpeace's campaign seemed to be a success in the short term, albeit the authors do note that the longer-term effects remain unclear.

External accounts do not however need to emerge from NGOs. Apostol (2015), for instance, presents a case study on a contested plan to open a gold mine in western Romania. The project was faced with unprecedented opposition by the civil society, which in this setting included several distinct parties. Apostol (2015) argues that external accounts were successful in challenging the mining project but did not seem to change the mining corporation's approach to giving information on the project nor was it clear whether they managed to influence the ultimate outcome of the project.

Finally, Thomson and colleagues (2015) present a longitudinal case study on the external accounts and other activist practices used by Action on Smoking and Health UK (ASH) in a struggle over tobacco governance during 1999-2010. As a conclusion, Thomson and colleagues (2015, p. 805) argue that their study highlights "how external accounts can contribute to the problematisation of governance and development of social and environmental change agendas". The authors further point out that the theoretical and empirical insights provided in their paper could provide a fruitful basis for future research on the use and efficacy of external accounts.

Animals and activists as an emerging concerned groups

To analyse the effects associated with animal activists' production of external accounts, we draw on prior work in science and technology studies (STS) that examines the interrelations between science, markets and politics. More specifically, we are inspired by the studies of Callon (2007), Callon et al. (2009) as well as Callon and Rabeharisoa (2003, 2008), who have investigated how groups concerned about

techno-scientific developments emerge and attempt to construct collective and individual identities by engaging in both scientific and political activities. The core ideas of these studies can be elaborated with reference to four concepts: matters of concern, concerned groups, framing/overflowing, and identity.

Emerging concerned groups can be defined as those that, “alerted by unexplained phenomena which concern and affect them, decide to make problematic events visible and undertake a primitive accumulation of knowledge” (Callon et al., 2009, p. 83). The members of concerned groups have not necessarily had any prior contact to each other; they have only been brought together by ‘matters of concern’ arising from the development and applications of techno-science. This inverted order of group formation is what distinguishes the idea of emerging concerned groups from the more conventional term ‘social movements’. Much of sociological literature tends to perceive the members of social movements as having essential characteristics such as pre-existing interests and values that lead them together, whereas the interests and values of concerned groups are formed only during their interaction (Callon & Rabeharisoa, 2008).

Matters of concern can be defined in relation to their opposite, ‘matters of fact’. The latter are taken-for-granted entities, such as diesel engines or penicillin, which have in their time emerged as techno-scientific innovations but the existence and characteristics of which are no longer questioned. In contrast, matters of concern are complex, contested and uncertain issues with few unilaterally agreed properties. Subterranean nuclear waste disposal is a classic example of a matter of concern that links together heterogeneous actors who have little in common besides their worry over the effects of radiation (Callon et al., 2009). In the context of the present paper, animal rights activists can be conceptualized as an emerging concerned group coalescing around industrial animal production. Although animal production as such is not a novel form of business, there is considerable uncertainty regarding animals’ cognitive abilities and the moral implications of such abilities in terms of producing and consuming animal-derived products (see Francione, 2010; Regan, 1983).

The word “emerging” as a qualifier of concerned groups underscores the basic anti-essentialist principle of science and technology studies that nothing is ever permanently stabilized. Actors’ identities, understood as their expectations, interests and responsibilities (Callon, 1998), are not fixed but dynamic characteristics that are configured and re-configured during interactions involving a variety of actors. These actors can be both human beings and non-human actors, such as diverse accounting devices (Skaerbaek, 2009; Skaerbaek & Tryggstad, 2010; Vinnari & Skaerbaek, 2014). Sometimes concerned groups are able to construct and at least momentarily stabilize the identities of the actor groups involved in the interactions. In an extreme case, such identity configuration involves changing the ontological status of the individuals whose cause is being promoted. Callon &

Rabeharisoa (2008) illustrate this phenomenon in the case of French muscular dystrophy patients, whose representative association succeeded in reconfiguring the patients' collective identity from "freaks of nature" to "human beings in their own right" (p. 231). In the case at hand, we see the animal rights activists exerting considerable effort in order to shift the ontological status of farm animals from production equipment to living beings with intrinsic value, and we also argue that external accounts played a role in this process.

Concerned groups can be characterized as orphan or affected depending on whether their emergence is generated by the framing or the overflowing of scientific and market interactions. According to Callon (1998), the framing of particular interactions requires physical technologies, calculative devices or inscriptions that simultaneously act as links to the outside world. Framing results in "the provisional stabilization of technologies, rules of the game, conventions, laws, training, competencies and skills" (Callon, 2007, p. 141). One side effect of framing is socio-technical lock-in, in other words "the privilege progressively granted to certain scientific and technical options" (Callon & Rabeharisoa, 2008, p. 246). The framing of interactions requires considerable investments, which makes it more difficult to question the status quo and creates a firm boundary between those who are included in the interactions and those who are excluded. Callon (2007) uses the term 'orphan groups' to denote those who are excluded from technological and economic development because of established framings. Orphan groups' needs and expectations cannot be taken into account because the knowledge for doing so does not exist. The groups therefore initiate inquiries that help them "explore new options, to define more clearly the problems facing them, and to seek possible solutions" (ibid., p. 246).

Because framing devices provide openings to the outside world, framing is always incomplete and susceptible to overflowing. With the latter term Callon (1998) refers to economic externalities and other, less quantifiable effects of framed interactions, such as diverse ethical issues. Overflows that generate conventional externalities usually result from the circulation of various goods, such as genetically modified organisms, pollutants, or viruses. The term affected groups is employed to denote those groups whose lives are affected by the overflowing, either in a positive or a negative sense.

In the context of the present paper, production animals can be perceived as both orphan and affected groups. On the one hand, the framing of meat production and consumption in Western countries has arguably resulted in a socio-technical lock-in with large-scale industrial production and mass consumption being the norm. Animals can be conceptualized as an orphan group since as individuals they are not included in the framing and their interests are thus not taken into account. On the other hand, meat production and consumption can be seen to generate overflows that become manifest as environmental and ethical dilemmas related to the

justification of meat eating. From this perspective, animals form an affected group as they suffer directly from the institutionalized practice of meat eating. However, since animals cannot directly voice their thoughts, human beings act as their spokespersons. Therefore the more generic term concerned group is used here to designate the activists who attempt to speak on the animals' behalf¹.

As mentioned above, the mechanism through which the identities of concerned groups and other participating actors are defined and provisionally stabilized involves both research and political activities. First, the matter of concern needs to be made visible and information gathered to complement the findings of professional scientists. At this stage, the work of concerned groups can be characterized as research "in the wild" (Callon & Rabearisoa, 2003) as it does not differ markedly from research conducted within institutes and laboratories: "On both sides we find experiments, instruments, and procedures of visualization, formalization, evaluation, accumulation, and writing" (*ibid.*, pp. 197-198). During this knowledge construction process, all actors are endowed with properties and interests that constitute their identities. However, the stabilization and recognition of these identities requires that concerned groups simultaneously become involved in political decision-making through lobbying, consultation or public debate. Knowledge production and political activities must proceed side by side since without political recognition of their emerging identities, concerned groups either remain in a state of emergence or simply disappear (Callon & Rabearisoa, 2008). In the case at hand, animal rights activists' efforts can be seen as research "in the wild" not only because they explicitly refer to their activities as "a research study of animal production" but also because the visual and verbal empirical material from the animal farms is presented in a formalized fashion as well as analysed on the NGO website serving as a data repository. The extent of their political involvement is more limited as will become evident further below. First, however, an elaboration of our research material and method is in order.

¹ This differs somewhat from Callon & Rabearisoa (2008) who considered both the muscular dystrophy patients and their families to form a concerned group.

Data and setting

Our empirical investigation takes place in Finland, where animal rights activists² started in 2007 an active and broadly noticed campaign against industrial meat production and consumption. As many animal farms in Finland have been relatively easily accessible, the activists have secretly entered the farms at night to produce filmed material from the premises and the conditions in which animals have been kept. The idea of the campaign is coined in one of the slogans used: “Cruel truth: a research study of Finnish animal production”. The videos have been released regularly since 2007, and to date the activists have produced material from over a hundred piggeries.³ The clips have been made readily available through websites⁴ hosted by an animal rights NGO, in addition to which they have also been shown on national television. Upon their release in 2007 the films received broad press coverage and attention in public discussions. This may partly be related to the fact that animal rights NGOs in Finland had in previous years mainly operated in rather conventional ways, such as by distributing leaflets and organizing small scale events. The videos, which we conceptualize as visual external accounts, were hence a new tool through which the activists sought to further their cause.

In this qualitative case study we make use of several different datasets. Our primary dataset consists of 21 interviews, which we have conducted with actors from various sectors of society, including animal activists, other NGO actors, academics as well as representatives from government, the meat industry, the retail sector and lobby groups. The interviews, which lasted on average for about an hour, took place between December 2013 and June 2014. A generic interview guide was developed in advance, although the content and emphasis of the interviews was adjusted for each interviewee as their backgrounds and roles in the case were sub-

² *Animal rights activism* can be seen to have developed from the more traditional movement focusing on *animal welfare*, the key difference between the two being that whereas animal rights activists seek to get rid of all use of non-human animals for food, clothing and other purposes, the welfarists are content with aiming at enhancing the conditions where individual animals are kept (see Francione, 2010; Regan, 1983; Singer, 1975). In Finland, activists disappointed with the bureaucracy and perceived inefficiency of traditional animal welfare organizations began to coalesce around the issue of animal rights in the early 1990s, and in 1995 they formed a non-hierarchical organization called Oikeutta Eläimille at least partially inspired by the US-based organization PETA, or People for the Ethical Treatment of Animals (Konttinen & Peltokoski, 2004).

³ The campaign also includes material from dairy and chicken farms. In this paper our focus is however on the piggeries, as they are the major element of the campaign. In Finland, ham is a traditional Christmas dish and arguably the activists took this fact into account in their publication strategy. The first batch of videos was released at the beginning of the holiday season in 2007.

⁴ www.tehotuotanto.net; www.sikatehtaat.fi; www.elaintehtaat.fi

stantially different. Each interview was recorded and subsequently transcribed verbatim. For the analysis, both authors studied the transcripts independently and formed their own personal understanding before a joint interpretation was reached via an iterative process of discussion and reinterpretation.

Several supplementary datasets are also used for this paper. These include the secretly filmed video clips from the pig farms over the period 2007-2013, available on websites hosted by an animal rights NGO. Some of these clips have also been shown on national television. We have also collected annual and CSR reports published by the companies in the meat industry; newspaper and magazine articles; court records; as well as promotional material and brochures published by various actors. All this material has been valuable for us as it has helped us build a more coherent understanding of the events and thereby to place the interviewees' statements and views within a broader context.⁵

Analysis

Initiation of conflict

The conflict can be seen to have initiated in late November 2007, when some material filmed by the animal rights activists was first aired on the prime time news programme A-Studio, followed by the opening of a dedicated campaign website hosting videos from 60 pig farms from different parts of Finland.

In the words of Callon et al. (2009), the activists can be said to have engaged in primitive data collection, visualization and analysis in order to highlight the overflows engendered by industrial animal production, in particular its impacts on the animals. Several of our interviewees explicitly described the external accounts as an alternative or a counterforce to the information produced by meat industry:

“Before these images [the films] there was nothing visual, no other message except for the animal rights activists’ calls from the side lines. (...) And then there was the [meat industry’s] advertising image which had been constructed for years and which is completely out of space. It was a huge achievement that we managed to shed light on what an animal’s everyday life looks like. And just because it is so extremely different from the advertisements, the power of the

⁵ Elsewhere (see Vinnari & Laine, 2017), we utilize the work of Chouliaraki (2006) and Boltanski (1999) to provide a discursive analysis of the secretly filmed video material and an episode of a major Finnish television show discussing the videos. The analysis of the videos is hence beyond the scope of this paper.

[filmed] image has increased hugely. I believe that it has changed the way in which we talk about animals. (Activist, cameraperson B)

By disseminating the results of their study the activists sought to confront and subsequently transform the dominant regime so that a reframing (Callon, 1998) would take place and farm animals would be recognized as having intrinsic as opposed to instrumental value. The interviewed activists who had participated in filming the piggeries had similar views about the partisan nature of their external accounts, the ultimate aim of the activity being a change in both the animals' ontological status and the existing governance regime:

"[O]f course I want a world where animals are taken into consideration as individuals with their own interests, and their interests rarely meet ours. Of course I want that the present kind of animal industry is abolished completely." (Activist, cameraperson A)

This statement contains clear references to the philosophical views according to which animal production is morally questionable as animals are sentient individuals with a right to their own lives (see Francione, 2010; Regan, 1983). There is little question that the activists' aim in producing the films and initiating a conflict in society was to effect a radical reduction and, ultimately, abolishment of animal production.

In the days following their release, the videos and their subject matter featured on several prime time television news broadcasts and on the front pages of major national newspapers and tabloids. This can be said to constitute an intermediate political milestone for the activists as they succeeded in making animals and animal farming a topic of public debate for several days. Furthermore, through their research "in the wild" (Callon & Rabeharisoa, 2003) the activists had managed to increase public knowledge of the conditions in which animal production takes place.

The institutional response to the activists' claims was denial. Immediately after the release of the videos, the industry regulators ordered inspections to some of the pig farms in question although their investigation swiftly resulted in a statement pointing out that virtually all problems were just minor and required no immediate action (leading national newspaper Helsingin Sanomat, 11.12.2007). Stronger views were presented by for instance the farmers' interest group:

"A veterinarian [identity withheld] representing the farmers' interest group MTK thinks that the animal right activists' claims are exaggerated. According to her, the EU inspections prove that production animals in Finland are well treated in most cases. Moreover, she emphasises that 'we need to remember what kind of an organization we are dealing with. They try to stop animal production and

are surely purpose-oriented here`.” (Newspaper Helsingin Sanomat, 30.11.2007.)

The Ministry of Agriculture and Forestry promised to look into the matter and make improvements where necessary, although the Minister was also highly critical in regard to the methods employed by the activists and to them first withholding the information for several months and taking the matter into publicity:

“If one notices abuse of animals, one should inform [the authorities], instead of producing some secretly filmed pictures.” (Minister of Agriculture and Forestry quoted in newspaper Helsingin Sanomat 2.12.2007.)

There was not much follow-up on the theme and the matter largely disappeared from the public arena until November 2009, when the activists came out with another set of videos from 30 pig farms. With the new external accounts the activists highlighted that despite some promises made after the initial release of the material, no changes had taken place in regard to the living conditions of the animals in the pig farms. In the spirit of Callon & Rabearisoa (2003), this second set of films represents a follow-up study that verified the unceasing overflows of meat production becoming manifest as animal suffering. The films received broad media coverage yet again as the external accounts featured in major newspapers and were also discussed on prominent TV shows. Throughout this process, the dominant governing regime actors denied the activists’ claims and did not yield their position in discussions of animal abilities.

“Minister of Agriculture and Forestry says that ‘within two days we will come to know what the reality on the farms is. If there are deficiencies, I won’t accept them at all.’ (...) The Minister also highlights that the Finnish legislation is currently in order (...) and that problems have only been found in a fraction of all pig farms.” (Interview of Minister of Agriculture and Forestry reported by National Broadcasting Company Yle 11.12.2009.)

It seems that from the beginning the activists were aware that their material would likely be played down and its authenticity would be questioned. One reason for this is in all likelihood that in previous years, photos from farms located abroad had been disseminated by animal rights activists without an explicit mention of their origin. Regardless of whether such an omission was purposeful or not, it sowed seeds of distrust towards material produced by the activists. As put by a journalist after the publication of the first films:

“(...)from the perspective of the media [the animal rights organization] Oikeutta Eläimille has not been a very trustworthy organization.” (Newspaper Helsingin Sanomat 2.12.2007)

Against this background, it is no wonder that the websites containing the films from Finnish farms include several references to the material being complete and providing a truthful presentation. The external accounts are coupled with the slogan “cruel truth”, and their origin and filming are described as follows:

“Our research was initiated by the need to expose the cruel secret in the middle of which we all live. (...) We stepped inside these buildings because we wanted to reveal the truth of the everyday life of animal production in Finland.”⁶

Similar rhetoric was also used by the representatives of the animal rights NGO when interviewed about the filming:

“The videos provide a comprehensive and representative picture of intensive farming in Finland.” (Spokesperson of Oikeutta Eläimille quoted in newspaper Helsingin Sanomat, 30.11.2007)

Despite these assurances, the external accounts have indeed been constantly questioned, and similarly has the justification of the initiated conflict over meat production been denied. The authenticity of the films and the selection of the animals portrayed as suffering have featured prominently in such arguments, as evinced by our research material:

“It’s the same thing as if you [the interviewee] were lying in your bed, I can’t tell if you’ve been there for a week or if you’ve just gone there, have you been neglected or what. So this is how the filmed material can be used for manipulation, and I think they [the activists] did it in a very efficient way.” (Representative 1, Ministry of Agriculture and Forestry)

Moreover, there has been a continuous attempt to downplay the accusations also through delegitimizing the claimants, trying to associate them with features such as irresponsibility and incompetence.

“Well, I primarily think of [the videos] from the perspective of animal diseases, and I find it very sad that this argument is dismissed as irrelevant. (- - -). So my first thought, and our [company’s] as well, is that [the secret filmings] were irresponsible acts, since you

⁶ <http://www.oikeuttaelaimille.net/ttnet/>.

could thereby cause significant economic losses and also damage the welfare [of the animals].” (Corporate representative, meat industry)

”(...)So they [the activists] don’t have the competence to interpret these images but they have still interpreted them in public with the consequence that a farm owner lost his mental balance.” (Representative 2, Ministry of Agriculture and Forestry).

As mentioned above, the external accounts were originally released anonymously, but in the aftermath of the release of the second set of films in 2009 two activists who had taken part in the filming came to publicity, and were subsequently taken to court. The ruling of both the Lower Court in 2011 and the Court of Appeal in 2013 was similar: the material presented in the external accounts was considered authentic and their release was lawful. Still, the interviewees continue to hold serious doubts over the videos, evaluating them in more or less explicit scientific terms:

“As a researcher I would have wanted to see images in which they [the activists] would have come in the [piggery] door and then constantly zoomed through all the pens. That would have given an impression – and that’s how welfare for instance is measured, that you go through them [the pens]. Although in that case you do construct a sample, but that sample is constructed before you even go in the piggery, so you choose for example every third pen.” (Academic, animal welfare)

“Considering that you [interviewers] are researchers, we could [scientifically] evaluate that material [the films]. So they would need to give sample statistics, like, how many doors did you try? How many of them were locked and how many hours of filmed material do you have and how many minutes of that were the most outrageous ones that were publicized? In other words, the background information also [should be given]. If they told us all that, then we could actually evaluate with some degree of reliability whether or not it was a good sample. But now it’s not objective. It’s subjective.” (Corporate representative, meat industry)

The quotes above illustrate how other actors were also able to perceive the films as research material but hoped to forge the identity of the researchers “in the wild” as being biased and sloppy in their work.

Present situation

Presently, it appears the conflict has eventually subsided. The activists have continued to add some new videos to their website, although the scale of the filmings is very small compared to the initial stages. Moreover, a realization has emerged that the drastic ontological change associated with perceiving farm animals as sentient beings instead of production equipment would require more efforts than just the release of the videos:

"Probably these videos have made many consumers and citizens think about whether everything is fully in order [in animal farming], but giving up one's own lifestyle and meat consumption is a much bigger thing, meaning that you don't change your consumption habits based on [such videos] only. (Academic, economics)

Hence, instead of animal rights, most of the changes can be argued to have focused on animal welfare. Our interviewees suggest that the release of the videos has led to individual producers' contracts with food companies being terminated as well as prompted the pig industry to develop and test welfare indicators.

"The industry is very much of the opinion that [the filmings] have been beneficial, especially for the pigs but also for the business. Of course they [the meat firms] don't say thank you, but they have openly admitted that a lot has happened because of the films." (Academic, animal welfare)

From an animal rights position the developments within the industry can be argued to be merely incremental in the sense that the fundamental operating logic of the meat industry is by no means under question. Similarly, in the realm of politics, regulators have received more resources to inspect farms, while politicians have demanded welfare improvements such as the abolishment of sow cages and other infrastructural changes. Identity-wise, animals seem to have emerged from the process with an identity of semi-sentience whereby some of their abilities and needs are acknowledged, but not to an extent that would have initiated a radical reframing of meat consumption and production.

As concerns the identities of the human parties to the conflict, the animal activists' and meat companies' interests and expectations have, at least for the time being, become stabilized as polar opposites:

"They [meat companies] cannot, well, discuss with us, because we question almost everything that there is (...) I feel that their activities are defined by money, or the manufacturing of the animal product and the business, whereas our activity is defined by the questioning

of that very logic, which implies that it is difficult [to discuss].” (Activist, Cameraperson B).

”Their goal, I think it is so far-off from our normal society [...] In my view there is no point to engage in a discussion with that section [activists] as long as their ultimate goal is to stop meat eating.” (Representative 2, farmer interest group)

”As long as their goal is to stop meat eating, any discussion with them is not going to help. Their aim is so far-out from where we live. [...] And their means for achieving the goal is torturing animals.” (Representative 2, Ministry of Agriculture & Forestry)

The situation thus seems to have become stagnated. Informed by Callon and Rabeharisoa (2008), we could argue that although the animal activists pursued their research activities systematically and indefatigably, they were less successful in linking these efforts to the political work necessary to engender the intertwined ontological and institutional changes. This could be because of mutual suspicions between the activists’ and the establishment, as evinced by the preceding interview quotes. For instance, when the implications of the external accounts were formally discussed in political committees, memos of these hearings indicate that the activists who professed to having participated in the filming or representatives of the animal rights NGO were not invited to take part. Instead, governing actors consulted representatives from conventional animal protection NGOs that promote incremental rather than radical change.

Throughout the conflict in our empirical setting, the plea conveyed by the external accounts has been undermined by questioning the animal right activists’ motives and interests:

”It must be the militant faction [of the activists] who employ these means. Whether they reveal their faces or not, I think it’s in a way very one-sided and purpose-oriented because they don’t, in my opinion, see the whole at all.” (Representative, farmer interest group)

”I would approve it [filming in secret] if it had been about improving animal welfare because then they would have gone in there [in the piggeries] in secret and delivered the material immediately to the authorities and an inspector would have gone there the next day. If the situation had been real, we would have caught them [the farmers] in the act. Then it [the filming] would have improved the animals’ wellbeing (...) I think it’s evident that they [the activists] are against meat production but if their motive had been to act on behalf of the animals, then I would have been ready to accept it.” (Representative 1, Ministry of Agriculture and Forestry)

In terms of identity formation, it is also worth noting that only the activists were considered by our interviewees to be purpose-oriented, whereas other actors such as the meat industry, the farmers' interest group and the politicians were seen as more neutral, rational and capable of comprehensive evaluation of the acceptability of animal production.

Conclusions

In response to the often biased corporate voluntary disclosures (Cho et al., 2015), external accounts have been suggested as an alternative to enhance information flow to various constituencies and thereby facilitate steps towards a more sustainable society (Cooper et al., 2005; Gallhofer et al., 2015, Spence, 2009). Despite emerging interest in this topic, there is still a paucity of studies which would focus on external accounts in action, analysing their use in real-life social settings. Accordingly, the purpose of this paper was to study the dynamics and transformative potential associated with external accounts, focusing especially on the effects they generate while in circulation. Towards this end, we presented a longitudinal case study that explored the role of external accounts during an episode taking place in Finland, where some animal rights activist groups have actively campaigned against industrial meat and dairy production.

To summarize the results of the study, we found that the external accounts participated both in the formation of the involved actors' identities and the closely associated emergence of small-scale political effects. First, production animals have emerged from the conflict initiated by the external accounts with an ontological status of semi-sentience. In other words, as a result of the circulation of the external accounts, the animals' intrinsic value as subjects-of-a-life is partially politically acknowledged and the framing of meat production has been slightly reconfigured by adding new stipulations that convey cosmetic improvements to the conditions in which the animals are kept. The fact that the topic stayed on the media agenda for several days on multiple occasions can be considered a political achievement in itself. In this sense of partial and incremental success, our results bear resemblance to those reported by Apostol (2015). The larger ontological change that the activists sought has thus far not been realized and animals still remain an orphan group partially excluded from the framing and an affected group suffering from the overflows of meat production and consumption.

Second, the respective identities of the activists and the representatives of the meat industry have emerged as polar opposites and the groups consider it rather impossible to ever reach an agreement in this matter. Furthermore, during the process and in our interviews representatives of the dominant regime have sought to

undermine the activists' research "in the wild" (Callon & Rabeharisoa, 2003), trying to link the activists to features such as militant, incompetent, and subjective. Activists in turn perceive the meat industry representatives as being cruel capitalists driven only by profit considerations, with whom it makes no sense to talk.

Our study contributes to extant literature on external accounts by offering an empirical analysis of the dynamics and transformative potential of external accounts as well as by illustrating the insights gained by examining their effects through the theoretical framework in question. In terms of societal impacts, our study aimed at fortifying the link between accounting research and global sustainability issues through the scrutiny of an environmentally and ethically contested industry. The limitations of the study relate to dynamic nature of the investigated phenomenon. In the present study we were not able to establish definitive conditions under which external accounts could have the potential to generate the sought after large transformation. Such an examination is therefore suggested as an avenue of further research.

References

- Apostol, O.M. (2015) A project for Romania? The role of the civil society's counter accounts in facilitating democratic change in society. *Accounting, Auditing & Accountability Journal*, Vol. 28 (2), 210–241.
- Bebbington, J. – Brown, J. – Frame, B. (2007) Accounting technologies and sustainability assessment models. *Ecological Economics*, Vol. 61 (2/3), 356–381.
- Bebbington, J. – Larrinaga, C. (2014) Accounting and sustainable development: An exploration. *Accounting, Organizations and Society*, Vol. 39 (6), 395–413.
- Bebbington, J. – Unerman, J. – O'Dwyer, B. (2014) *Sustainability Accounting and Accountability*. Routledge: Abingdon.
- Boiral, O. (2013) Sustainability reports as simulacra? An external account of A and A+ GRI reports. *Accounting, Auditing and Accountability Journal*, Vol. 26 (7), 1036–1071.
- Brennan, N.M. – Merkl-Davies, D.M. (2014) Rhetoric and argument in social and environmental reporting: the Dirty Laundry case. *Accounting, Auditing & Accountability Journal*, Vol. 27 (4), 602–633.
- Brown, J. (2009) Democracy, sustainability and dialogic accounting technologies: Taking pluralism seriously. *Critical Perspectives on Accounting*, Vol. 20 (3), 313–342.
- Callon, M. (2007) An essay on the growing contribution of economic markets to the proliferation of the social. *Theory, Culture & Society*, Vol. 24 (7–8), 139–163.
- Callon, M. (1998) An essay on framing and overflowing: economic externalities revisited by sociology. In: *The Laws of the Markets*, ed. by M. Callon, 244–269. Oxford: Blackwell.
- Callon, M. – Lascoumes, P. – Barthe, Y. (2009) *Acting in an Uncertain World: An Essay on Technical Democracy*. Transl. by Graham Burchell. Cambridge, Massachusetts: MIT Press.
- Callon, M. – Rabeharisoa, V. (2003) Research 'in the wild' and the shaping of new social identities. *Technology in Society*, Vol. 25 (2), 193–204.
- Callon, M. – Rabeharisoa, V. (2008) The growing engagement of emergent concerned groups in political and economic life: Lessons from the French Association of Neuromuscular Disease Patients. *Science, Technology, & Human Values*, Vol. 33 (2), 230–261.

- Cho C.H. – Laine M. – Roberts R.W. – Rodrigue M. (2015) Organized hypocrisy, organizational façades, and sustainability reporting. *Accounting, Organizations and Society*, Vol. 40 (1), 78–94.
- Cooper, C. – Taylor, P. – Smith, N. – Catchpole, L. (2005) A discussion of the political potential of social accounting. *Critical Perspectives on Accounting*, Vol. 16 (7), 951–974.
- Dey, C. (2007) Developing silent and shadow accounts. In: *Sustainability Accounting and Accountability*, ed. by J. Unerman – J. Bebbington – B. O’Dwyer, 30–326. Routledge: Oxon.
- Dey, C. – Russell, S. – Thomson, I. (2011) Exploring the potential of shadow accounts in problematising institutional conduct. In: *Social accounting and public management: Accountability for the common good*, ed. by S. Osbourne – A. Ball, 64–75. Abingdon: Routledge.
- Francione, G. (2010) *Rain without thunder: The ideology of the animal rights movement*. Temple University Press.
- Gallhofer, S. – Haslam, J. – Monk, E., – Roberts, C. (2006) The emancipatory potential of online reporting: The case of counter accounting. *Accounting, Auditing and Accountability Journal*, Vol. 19 (5), 681–718.
- Gallhofer, S. – Haslam, J. – Yonekura, A. (2015) Accounting as differentiated universal for emancipatory praxis: accounting delineation and mobilisation for emancipation(s) recognising democracy and difference. *Accounting, Auditing and Accountability Journal*, Vol. 28 (5), 846–874.
- Gray, R. (2002) The social accounting project and Accounting, Organizations and Society: Privileging engagement, imagining new accountings and pragmatism over critique?” *Accounting, Organizations and Society*, Vol. 27 (7), 687–708.
- Gray, R. – Brennan, A. – Malpas, J. (2014) New accounts: Towards a reframing of social accounting. *Accounting Forum*, Vol. 38 (4), 258–273.
- Gray, R. H. – Dillard, J., – Spence, C. (2009) Social accounting as if the world matters: An essay in Postalgia and a new absurdism. *Public Management Review*, Vol. 11 (5), 545–573.
- Harte, G. – Owen, D. (1987) Fighting de-industrialisation: The role of local government social audits. *Accounting, Organizations and Society*, Vol. 12 (2), 123–141.
- Keating, P.J. (1995) A framework for classifying and evaluating the theoretical contributions of case research in management accounting. *Journal of Management Accounting Research*, Vol. 7 (1), 66–86.

- Kontinen, E. – Peltokoski, J. (2004) *Ympäristöprotestin neljäs aalto. Eläinoikeusliike ja uuden polven ympäristöradikalismi 1990-luvulla.* [The Fourth Wave of Environmental Protest. The Animal Rights Movement and the New Generation of Environmental Radicalism in the 1990s]. Jyväskylä: Minerva Publications Ltd.
- Milne, M. J. – Gray, R. (2013) W(h)ither ecology? The triple bottom line, the Global Reporting Initiative and corporate sustainability reporting. *Journal of Business Ethics*, Vol. 118 (1), 13–29.
- Milne, M.J. – Tregidga, H. – Walton, S. (2009) Words not actions! The ideological role of sustainable development reporting *Accounting, Auditing and Accountability Journal*, Vol. 22 (8), 1211–1257.
- O’Sullivan, N. – O’Dwyer, B. (2009) Stakeholder perspectives on a financial sector legitimation process: the case of NGOs and the equator principles. *Accounting, Auditing & Accountability Journal*, Vol. 22 (4), 553–587.
- Owen, D. (2008) Chronicles of wasted time? A personal reflection on the current state of, and future prospects for, social and environmental accounting research *Accounting, Auditing and Accountability Journal*, Vol. 21 (2), 240–267.
- Regan, T. (1983) *The Case for Animal Rights*. Berkeley: University of California Press.
- Rodrigue, M. (2014) Contrasting realities: corporate environmental disclosure and stakeholder-released information. *Accounting, Auditing and Accountability Journal*, Vol. 27 (1), 119–149.
- Rodrigue, M. – Cho, C.H. – Laine, M. (2015) Volume and tone of environmental disclosure: A comparative analysis of a corporation and its stakeholders. *Social and Environmental Accountability Journal*, Vol. 35 (1), 1–16.
- Sikka, P. (2006) The internet and possibilities for counter accountings: some reflections. *Accounting, Auditing and Accountability Journal*, Vol. 19 (5), 759–769.
- Singer, P. (1975) *Animal Liberation: A New Ethics for Our Treatment of Animals*. New York: Random House.
- Skaerbaek, P. (2009) Public sector auditor identities in making efficiency auditable: The National Audit Office of Denmark as independent auditor and modernizer. *Accounting, Organizations and Society*, Vol. 34 (8), 971–987.

- Skaerbaek, P. – Tryggestad, K. (2010) The role of accounting devices in performing corporate strategy. *Accounting, Organizations and Society*, Vol. 35 (1), 108–124.
- Spence, C. (2009) Social accounting's emancipatory potential: A Gramscian critique. *Critical Perspectives on Accounting*, Vol. 20 (2), 205–227.
- Thomson, I. – Russell, S. – Dey, C. (2015) Activism, arenas and accounts in conflicts over tobacco control. *Accounting, Auditing & Accountability Journal*, Vol. 28 (5), 809–845.
- Unerman, J. – Chapman, C. (2014) Academic contributions to enhancing accounting for sustainable development. *Accounting, Organizations and Society*, Vol. 39 (6), 385–394.
- Vinnari, E. – Laine, M. (2017) The moral mechanism of counter accounts: The case of industrial animal production. *Accounting, Organizations and Society*, Vol. 57 (2), 1–17.
- Vinnari, E. – Skaerbaek, P. (2014) The uncertainties of risk management: A field study on risk management internal audit practices in a Finnish municipality. *Accounting, Auditing & Accountability Journal*, Vol. 27 (3), 489–526.

Turun kauppakorkeakoulun julkaisuja



Turun yliopisto
University of Turku

ISBN 978-952-249-512-9
ISSN 2342-4796